City of Cocoa

65 Stone Street
Cocoa, FL 32922

Meeting Agenda

Tuesday, February 27, 2024

6:00 PM

Cocoa City Council Chambers

City Council

I. CALL TO ORDER

INVOCATION

PLEDGE OF ALLEGIANCE

ROLL CALL

II. APPROVAL OF AGENDA AND MINUTES:

AGENDA:

II.1 24-106 Approve the Agenda for the Regular Meeting of February 27, 2024 as written or with amendments.

Attachments: 02-27-2024 Short Agenda.pdf

MINUTES:

II.2(a) 24-101 Approval of the November 14, 2023 Regular City Council Meeting Minutes as written or with amendments.

Attachments: 11-14-2023 Minutes ADA.pdf

Voting Form 8B for Mayor Blake.pdf

II.2(b) 24-102 Approval of the December 19, 2023 Special City Council Meeting Minutes as written or with amendments.

Attachments: 12-19-2023 Minutes ADA.pdf

Exhibit A

Exhibit B

Exhibit C

III. AWARDS AND PRESENTATIONS:

III.1 24-097 Presentation of CMC Pin to Monica Arsenault, City Clerk.

III.2 24-107 Presentation of Historic Cocoa Village Main Street's Annual Report. (HCVMS)

IV. DELEGATIONS:

In accordance with the City Council's rules and procedures, residents or tax-payers of the City (upon any subject of general or public interest), City employees (regarding his/her employment), and water and sewer customers (on matters related to the City's water and/or sewer system), may address the City Council under Delegations on items not on the printed agenda by filling out a speaker card.

Speaker cards are located outside the Council meeting room and should be provided to the City Clerk. Please observe the time limit of three (3) minutes while speaking under Delegations. Delegations shall be limited to thirty (30) minutes unless extended by Council.

V. CONSENT AGENDA:

V.1 24-048 Approve a Resolution Amending the FY24 Budget, BAF# 24-046-A in the amount of $13,457 with the use of Federal Forfeiture funds to Train Police Officers in mandatory Active Assailant Training using Ultimate Training Munitions Contract # 47QSWA19D00AS for purchase of required equipment.

Attachments:
- UTM Quote Q16989-2 (1).pdf
- Budget Resolution FY 2024- ADA Compliant.docx
- BAF 24-046-A-PD- Fed Forfeiture Active Assailant Training (02-13-24) Agenda

V.2 24-070 To Approve a Resolution Waiving the Competitive Bidding Process for the Purpose of Making an Exemption to Competitive Purchase through The Ford Meter Box Company, Inc. for the Replacement of the Existing Water Meter Test Bench and Related Appurtenances; To Approve the Purchase of the Water Meter Test Bench

Attachments:
- Ford Meter Box Company Quote No. 164140.pdf
- IATB113-RLRL-AMSII-RSC500 Meter Test Bench Specifications.pdf
- Ford Meter Box ISO9001:2015 Certificate - EXP 8/22/26.pdf
- Ford Meter Box Company Test Bench Sole Source Letter.pdf
- Resolution - Sole Source -The Ford Meter Box Company.doc

V.3 24-085 Approve a Budget Resolution Amending the FY24 Budget, BAF#24-055-T, in the Amount of $110,000 for the Repairs of a VAC-CON Jet Vacuum Cleaner Truck System and a 2014 Tymco Street Sweeper. Authorize the City Manager to Approve Purchases up to the Budgeted Amount.

Attachments:
- Budget Resolution FY 2024- ADA Compliant.docx
- BAF 24-055-T-PW Repair Vacuum Tank Truck for SW (02-27-24) agenda 24-08
- 021424 - Southern Sewer Eq Sales - $73,109.77.pdf
- 022124 - Container Systems - $16,833.13.pdf
- 060623 - Journal - Page 2.pdf
- 2023-061 (Sole Source Southern Sewer, Inc.).pdf

V.4 24-093 Approve the FY 2023-2024 HOME Disbursement Agreement between the City of Cocoa and Brevard County in the amount of $310,488.38.

Attachments: 2023-2024 HOME Disbursement Agreement.pdf

MULTI-YEAR CONTRACTS:

V.5(b) 24-056 To Approve the Friday Road Utilities Extension Project - Construction Admin Services and the Osage/Angelica Street Utilities Extension Project - Construction Admin Services Scopes of Services and associated rates with DRMP, Inc for Engineering Services During Construction for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve A Resolution to Waive Competitive Bidding for the work; To Approve a 4th Amendment to the DRMP Continuing Services Agreement (RFQ No. 17-16-COC); To Approve as Multi-Year Contracts from FY2024 through FY2025. To Approve a Resolution Amending the FY24 Budget, BAF#24-059-ITF, in the Amount of $222,065 for Engineering Services (DRMP) and Replenishing Fund Balance (Fund 421) in the Amount of $1,223,744.

Attachments: Settlement Agreement.pdf
21-0540.002 Friday Road Utilites Project C.A. Services_020224.pdf
21-0540.002 Osage Angelica Utilites Project C.A. Services_020124.pdf
Cost Estimate 4-4-22.pdf
21-0540.002 DRMP Standard Rates Table C.A. Services_0211324.pdf
Bussen-Mayer 1st Amendment to RFQ No. 17-16-COC.pdf
2nd Amendment DRMP signed.pdf
02_14_2023_ 3rd Amendment DRMP signed.pdf
RFQ-17-16-COC AGREEMENT - Bussen-Mayer.pdf
Budget Resolution FY 2024- ADA Compliant.docx
BAF 24-059-IFT-UT-DRMP Friday-Osage (2-27-24) Agenda 24-056.pdf
Tracking Sheet BAF#24-059-IFT.pdf
TO-DRMP 2024-26 $97,925.00 - UT-ENG.pdf
TO-DRMP 2024-25 $124,140.00 - UT-ENG.pdf
RFQ-17-16-COC Amendment # 4.pdf

V.6(b) 24-057

To Approve Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for Construction of the Friday Road Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not to Exceed $401,240.70 (10% of the Contract Amount) for a Total Project Cost of $4,413,647.70; To Approve a Resolution Amending the FY2024 Budget, BAF# 24-057-IFT.

Attachments:

Settlement Agreement.pdf

Agreement for Utilities General Construction Contractor Atlantic.pdf

1st Amendment Atlantic Fully Ex.pdf

Friday Road Quote Package.pdf

Appendix B - Friday Road Bid Drawings.pdf

Friday Road Quote Tabulation Sheet.pdf

TO-ATLANTIC DEV 2024-10 $4,012,407.00 - UT-ENGIN.pdf

Friday Rd Utilities Improvements Bid from Atlantic Development of Cocoa.pdf

Contingency Resolution - Friday Road.doc

Budget Resolution Friday Road.docx

BAF 24-057-IFT-UT Friday Road UT Improvements (2-27-24)-Agenda 24-057.p

Tracking Sheet BAF#24-057-IFT.pdf

V.7(b) 24-058 To Approve Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for Construction of the Osage/Angelica Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not To Exceed $371,738.53 (10% of the Contract Amount) for a Total Project Cost of $4,089,123.83; To Approve a Resolution Amending the FY2024 Budget, BAF#24-058-IFT.

Attachments:
- Settlement Agreement.pdf
- Agreement for Utilities General Construction Contractor Atlantic.pdf
- 1st Amendment Atlantic Fully Ex.pdf
- Angelica-Osage Quote Package.pdf
- Appendix B - Osage Angelica Bid Plans.pdf
- Osage-Angelica Quote Tabulation Sheet.pdf
- TO-ATLANTIC DEV 2024-09 $3,717,385.30 - UT_ENGIN.pdf
- Osage_Angelica Utilities Improvements Bid from Atlantic Development of Cocoa
- Contingency Resolution - Osage-Angelica.doc
- Budget Resolution Osage-Angelica.docx
- Tracking Sheet BAF 24-058-IFT.pdf
- BAF 24-058-IFT-UT-Osage-Angelica Utility Improvement (2-27-24) Agenda 24-(

VI. PUBLIC HEARINGS:

VI.1 24-031 Conduct a Public Hearing to review the affordable housing real property inventory list and approve a Resolution identifying certain real property within the City to which the City holds fee simple title that is appropriate for permanent affordable housing.

Attachments:
- Inventory List - City Property for Affordable Housing - Held for Resale 1-24-24 (I
- City Properties for Affordable Housing 2024.pdf
- Resolution 2024 - XXX (affordable housing surplus property).docx
- FS 166-0451 (Disposal of Vacant Property).docx
- FT-38771343-proof.pdf

24-089 Approve on First Reading an Ordinance authorizing the inclusion of the Winward Preserve and Lakes at Cocoa Grove projects located within the City of Cocoa into the Brevard County District 1 Road and Bridge Municipal Service Taxing Unit.

Attachments:
- Ordinance No. __-2024 - Establishing MSTU.pdf
- Exhibit A - Subject Properties.pdf

VII. COUNCIL BUSINESS:

VII.1 24-072 Approval of a road closure date change and the addition of a street closure outside the CBD.

VII.2 24-103 Council approval of FY23 assigned fund balance listing requested to be able to complete the FY23 Annual Comprehensive Financial Report (ACFR) for audit

VIII. CITY BUSINESS:

IX. INFORMATIONAL AGENDA:

IX.1 24-063 In accordance with City Code, Section 2-74, at the beginning of each month during the fiscal year, the City Manager shall submit to City Council data showing the relation between the estimated and actual income and expenses to date.

Attachments: Budget Classification Report January 2024.pdf

IX.2 24-064 FY 2024 January Budget Adjustment Report

Attachments: FY 2024 REVENUE Budget Tracking Worksheet.pdf
FY 2024 EXPENSE Budget Tracking Worksheet.pdf

IX.3 24-065 In accordance with the Financial Operations Manual (FOM) the City Manager shall submit to City Council in the form of an agenda item any approved change orders to construction contracts that the City Council has authorized the City Manager, by resolution, to approve in excess of the City Manager's spending authority.

Attachments: Change Order Authorizations Vizualization.pdf
Change Orders-CM Authorized January 2024.pdf

IX.4 24-108 Bi-weekly Report from February 9 - February 22, 2024.

Attachments: Council bi-weekly report.pdf

X. REPORTS:

XI. ADJOURNMENT

XII. NOTICE TO THE PUBLIC:

This is a public meeting. All interested parties may attend in person. The facility wherein this public meeting will be held is accessible to the physically handicapped. In accordance with the Americans With Disabilities Act, persons needing assistance to participate in any of these proceedings should contact the City Clerk of the City of Cocoa, listed below, at least 48 hours prior to the meeting: Monica Arsenault, City Clerk, 65 Stone Street, Cocoa, by telephone at (321) 433-8488 or via email at marsenault@cocoafl.gov.

Additionally, interested persons may view or listen to the meeting electronically at the following internet sites:
(1) https://tinyurl.com/s5e875r or
(2) https://cocoa.legistar.com/DepartmentDetail.aspx?ID=26365&GUID=FF9D3369-D354-4FAB-800A-57D0AEE30153&Mode=MainBody

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Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that: if a person decides to appeal any decision made by the City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

Although members of the public are entitled to be heard by the City Council on certain items on the meeting agenda pursuant to the City Council Rules of Procedure, members of the public are not entitled to an immediate response by either administrative staff members or Council; however, the City Council or administrative staff may provide a response at their discretion. When presenting before the City Council, all comments or questions should be directed to the Mayor or the chair of the meeting. Comments or questions should not be made directly to administrative staff without permission from the Mayor or chair.
Public debate by individual speakers from the audience on public hearing items shall be limited to three (3) minutes. Applicants or representatives of recognized groups with special interests in a matter shall be limited to ten (10) minutes; and total debate on a single issue shall be limited to thirty (30) minutes. Only one presentation per person per item shall be allowed.

A Council member may add an item to the agenda during the meeting only at the time the agenda is approved. If the item requires action by the Council, then it may be added to the agenda by an affirmative vote of the Council, and written documentation must be submitted at the time the item is added to the agenda. Matters may also be raised by the Council, City Manager or City Attorney under reports and acted upon by the City Council.

This agenda is posted on the Municipal Bulletin Board and at the Central Brevard Library and Reference Center in Cocoa for public review.

Legislation Details (With Text)

File #:	24-106	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	2/22/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approve the Agenda for the Regular Meeting of February 27, 2024 as written or with amendments.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	02-27-2024 Short Agenda.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 22, 2024
Agenda Date: February 27, 2024
Prepared By: Monica Arsenault, City Clerk
Through: Stockton Whitten, City Manager
Requested Action:
Approve the Agenda for the Regular Meeting of February 27, 2024 as written or with amendments.

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Approve the Agenda for the Regular Meeting of February 27, 2024 as written or with amendments.

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Agenda
City of Cocoa
Regular Meeting of The City Council

Date: February 27, 2024
Time: 6:00 pm
Location: 65 Stone Street Cocoa, FL 32922

I. Opening Matters:

1. Call to Order
2. Invocation
3. Pledge of Allegiance
4. Roll Call

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of February 17, 2024. (24-106)

2. Minutes: (a) Regular Meeting of November 14, 2023. (24-101)

(b) Special Meeting of December 19, 2023. (24-102)

III. Awards and Presentations:

1. Presentation of CMC Pin to Monica Arsenault, City Clerk. (24-097). (Gwen Pierce, FACC Central East District Director)

2. Historic Cocoa Village Main Street's Annual Report. (24-107). (HCVMS)

IV. Delegations:

In accordance with the City Council's rules and procedures, residents or tax-payers of the City (upon any subject of general or public interest), City employees (regarding his/her employment), water and sewer customers (on matters related to the City's water and/or sewer system), and any person on any item on the agenda (except *Emergency items, Ministerial items, Quasi-judicial items, and Public Hearing items),* may address the City Council under Delegations by filling out a speaker card.

This Agenda may be Amended up until or at the Meeting

Speaker cards are located in the Council Chamber lobby and should be provided to the City Clerk. Please observe the time limit of three (3) minutes while speaking under Delegations. Delegations shall be limited to thirty (30) minutes unless extended by Council.

V. Consent Agenda:

(A) General Consent Items:

1. Approve a Resolution Amending the FY24 Budget, BAF# 24-046-A in the amount of $13,457 with the use of Federal Forfeiture funds to Train Police Officers in mandatory Active Assailant Training using Ultimate Training Munitions Contract # 47QSWA19D00AS for purchase of required equipment. (24-048). (Police Chief)

2. To Approve a Resolution Waiving the Competitive Bidding Process for the Purpose of Making an Exemption to Competitive Purchase through The Ford Meter Box Company, Inc. for the Replacement of the Existing Water Meter Test Bench and Related Appurtenances; To Approve the Purchase of the Water Meter Test Bench. (24-070). (Utilities Director)

3. Approve a Budget Resolution Amending the FY24 Budget, BAF#24-055-T, in the Amount of $110,000 for the Repairs of a VAC-CON Jet Vacuum Cleaner Truck System and a 2014 Tymco Street Sweeper. Authorize the City Manager to Approve Purchases up to the Budgeted Amount. (24-085). (Public Works Director)

4. Approve the FY 2023-2024 HOME Disbursement Agreement between the City of Cocoa and Brevard County in the amount of $310,488.38. (24-093). (Community Services Director)

(B) Multi-Year Contracts:

5. To Approve the Friday Road Utilities Extension Project - Construction Admin Services and the Osage/Angelica Street Utilities Extension Project - Construction Admin Services Scopes of Services and associated rates with DRMP, Inc for Engineering Services During Construction for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve A Resolution to Waive Competitive Bidding for the work; To Approve a 4th Amendment to the DRMP Continuing Services Agreement (RFQ No. 17-16-COC); To Approve as Multi-Year Contracts from FY2024 through FY2025. To Approve a Resolution Amending the FY24

Budget, BAF#24-059-ITF, in the Amount of $222,065 for Engineering Services (DRMP) and Replenishing Fund Balance (Fund 421) in the Amount of $1,223,744. (24-056). (Utilities Director)

6. To Approve Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for Construction of the Friday Road Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not to Exceed $401,240.70 (10% of the Contract Amount) for a Total Project Cost of $4,413,647.70; To Approve a Resolution Amending the FY2024 Budget, BAF# 24-057-IFT. (24-057). (Utilities Director)

7. To Approve Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for Construction of the Osage/Angelica Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not To Exceed $371,738.53 (10% of the Contract Amount) for a Total Project Cost of $4,089,123.83; To Approve a Resolution Amending the FY2024 Budget, BAF#24-058-IFT. (24-058). (Utilities Director)

VI. Public Hearings:

1. Conduct a Public Hearing to review the affordable housing real property inventory list and approve a Resolution identifying certain real property within the City to which the City holds fee simple title that is appropriate for permanent affordable housing. (24-031). (Community Services Director)

2. Approve on First Reading an Ordinance authorizing the inclusion of the Winward Preserve and Lakes at Cocoa Grove projects located within the City of Cocoa into the Brevard County District 1 Road and Bridge Municipal Service Taxing Unit. (24-089). (City Attorney)

VII. Council Business:

1. Approval of a road closure date change and the addition of a street closure outside the CBD. (24-072). (Comm. & Economic Dev. Director)

2. Council approval of FY23 assigned fund balance listing requested to be able to complete the FY23 Annual Comprehensive Financial Report (ACFR) for audit. (24-103). (Finance Director)

VIII. City Business:

This Agenda may be Amended up until or at the Meeting

IX. Informational Agenda:

1. Data showing the relation between the estimated and actual income and expenses to date. (24-063). (Finance Director)

2. FY 2024 January Budget Adjustment Report. (24-064). (Finance Director)

3. Report of any approved change orders to construction contracts that the City Council has authorized the City Manager, by resolution, to approve in excess of the City Manager's spending authority. (24-065). (Finance Director)

4. Bi-Weekly Report Covering (24-108). (City Manager)

X. Reports:

XI. Adjournment:

XII. Notice To The Public:

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(1) https://tinyurl.com/s5e875r or

(2) https://cocoa.legistar.com/DepartmentDetail.aspx?ID=26365&GUID=FF9D3369-D354-4FAB-800A-57D0AEE30153&Mode=MainBody

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Pursuant to Section 286.0105, Florida Statutes, the City hereby advises the public that: if a person decides to appeal any decision made by the City Council with respect to any matter considered at its meeting or hearing, that person will need a record of the proceedings and for such purpose, affected persons may need to assure that a verbatim record of the proceedings is made, and such record shall include the testimony and evidence upon which the appeal is to be based. This notice does not constitute consent by the City for the introduction or admission into evidence of otherwise inadmissible or irrelevant evidence, nor does it authorize challenges or appeals otherwise not allowed by law.

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Legislation Details (With Text)

File #:	24-101	**Version:**	1	**Name:**	
Type:	Minutes			**Status:**	Agenda Ready
File created:	2/22/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approval of the November 14, 2023 Regular City Council Meeting Minutes as written or with amendments.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	11-14-2023 Minutes ADA.pdf Voting Form 8B for Mayor Blake.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 22, 2024
Agenda Date: February 27, 2024
Prepared By: Monica Arsenault, City Clerk
Through:
Requested Action:
Approval of the November 14, 2023 Regular City Council Meeting Minutes as written or with amendments.

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Approval of the November 14, 2023 Regular City Council Meeting Minutes as written or with amendments.

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MINUTES
City of Cocoa
Regular Meeting of The City Council

November 14, 2023

A Regular City Council Meeting was held on Tuesday, November 14, 2023, in Cocoa City Hall, in City Council Chambers, located at 65 Stone Street, in Cocoa, Florida, 32922, as publicly noticed.

I. Opening Matters:

Mayor Blake called the meeting to order at 6:01 p.m.

Pastor Randy Alonso and Pastor Roger Byrd provided the invocation and Historic Cocoa Village Main Street led the assembly in the Pledge of Allegiance to the Flag of the United States of America.

The Interim City Clerk took the roll.

PRESENT:	Michael C. Blake	Mayor
	Lavander Hearn	Deputy Mayor (via phone)
	Matthew Barringer	Councilmember
	Alex Goins	Councilmember
	Lorraine Koss	Councilmember
	Anthony Garganese	City Attorney
	Stockton Whitten	City Manager
	Monica Arsenault	Interim City Clerk

OTHER STAFF MEMBERS PRESENT:

Jack Walsh, Utilities Director; Charlene Neuterman, Community Services Director; Tammy Gemmati, Administrative Services Director; Evander Collier, Police Chief; Lora Howell, Deputy Finance Director; Jonathan Lamm, Fire Chief; Robert Beach, Chief Technology Officer; Dennis Bunt, Code Enforcement Manager; and Jason Dowty, Help Desk Support Tech.

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of November 14, 2023. (23-718).

*** MOTION by Councilmember Koss; Seconded by Councilmember Goins, to approve the agenda for the Regular meeting of November 14, 2023 as written.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

2. Minutes: (a) Regular Meeting of September 12, 2023. (23-717).
(b) Regular Meeting of September 26, 2023. (23-719).

*** MOTION by Councilmember Koss; Seconded by Councilmember Goins, to approve the minutes for the Regular meeting of September 12, 2023 with amendments to pages 3 and 4; and to approve the September 26, 2023 minutes as written.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

III. Awards and Presentations:

1. Proclaiming the City's Support for its Sister City, Beit Shemesh, Israel. (23-699).

Councilmember Barringer read the proclamation into the record and shared his support, along with Council, for Beit Shemesh.

2. Historic Cocoa Village Main Street Presents Hot Cocoa Holidays. (23-700).

Emma Kirkpatrick, HCVMS, read a poem in observance of Hot Cocoa Holidays.

IV. Delegations:

Aleck Greenwood, 640 Brevard Ave., Cocoa, submitted his personal resume to Council. He shared a concern that a Councilperson insinuated that he is involved in a lawsuit against the City and he would like that person to have a discussion with the City Manager to clear that up.

He also mentioned a comment that was made at a community meeting and asked why his property was a topic at the meeting when it is not in this Councilperson’s district. In response, it was clarified that the comment that was made was brought

up by a citizen and it was said at that time that the topic was not going to be addressed at that particular meeting.

Brad Whitmore, 351 Rockledge Dr., and also member of HCVMS, mentioned that he is pleased to share that the Ed Lanni T-Docks are still functional and active as the season moves along. To that point, there is a shortage of places to tie dinghy's even though there is plenty of space. He asked Council to address this issue.

V. Consent Agenda:

(A) General Consent Items:

1. Approve a Resolution Amending the FY2024 Budget, BAF#24-011-A to fund the Stradley Park Project. Authorize the City Manager to Approve a Task Order/Purchase Order to W&J Construction Corporation utilizing the existing Piggy-back contract for Brevard County's Continuing Construction Manager (At Risk) Services, Contract # RFQ 6-22-05 Effective July 7, 2022 through 11/21/2025 for the Guaranteed Maximum Price (GMP) of $621,637 for improvements to the Football Field at Don "Mo" Stradley Memorial Park. Approve a Contingency Resolution Authorizing the City Manager to issue Owner Directed Change Order not to exceed $60,000. (23-629). (Interim Public Works Director)

2. Approve Participation in Cooperative Purchasing Agreements for the Purchase of Vehicles and the associated options and equipment for FY-2024 Utilizing Sourcewell Contracts 2024 091521-NAF&06, 060920-ATC and Florida State DMS PA 25100000-23-STC; Approve a Resolution Amending the FY24 Budget BAF#24-016-A for the additional cost of one vehicle and the FY23 Vehicle Budget Roll for unencumbered funds, and Authorize City Manager to execute Purchase Orders to Contract Dealers. (23-658). (Interim Public Works Director)

3. Approve Utilities Easements with Brightline Trains Florida, LLC and Mountain Cove Homes at Lakes at Cocoa Grove, LLC. (23-713). (City Attorney)

(B) Multi-Year Contracts:

4. Approval to enter into a multi-year agreement with Brevard County regarding the Public Safety Radio System Annual User Agreement and the City of Cocoa for radio system services. (23-628). (Fire Chief)

5. Approve Participation in a Multi-Year Piggy-Back Agreement with Inliner Solutions for Cured in Place Pipe Lining Utilizing Volusia County's Contract # 22-B-41HO Effective November 14, 2023 through September 19, 2025. Authorize the City Manager to Approve a Task Order/Purchase Order to Inliner Solutions utilizing this piggy-back contract for Cured in Place Pipe Lining for $155,095 for 1,252 linear feet of pipe lining. Approve a Contingency Resolution Authorizing the City Manager to issue Change Order(s) not to exceed $4,905. (23-645). (Interim Public Works Director)

6. To Approve a Resolution Amending the FY2024 Budget, BAF No. 24-021-IFT; Approve the Vortex Proposal for Manhole Rehabilitation Services Utilizing the HGAC (Houston-Galveston Area Council) National Cooperative Purchasing Contract No. TP07-18 Effective July 1, 2018 through June 29, 2021, Renewed Through June 30, 2024. (23-676). (Utilities Director)

7. To Approve the Insituform Technologies, LLC Proposal for Cured in Place Pipe (CIPP) Rehabilitation Services and Sanitary Sewer Mid-Term Cleaning & CCTV Inspections of Main Line Sewers Utilizing the Clay County Utility Authority Bid No. 18/19-A7 effective June 18, 2022 through June 18, 2024. (23-678). (Utilities Director)

8. Approve an Amendment of a multi-year piggyback agreement for Surveying Services with Southeastern Surveying and Mapping Corp., based on the City of St. Cloud contract RFQ 2022-032. Authorize the City Manager to approve amendment or extensions to the agreement effective on June 29, 2023, and renew upon expiration of the initial term on September 30, 2023, through September 16, 2025. Authorize the City Manager to Adjust the FY24 Budget and approve Purchase Orders as needed, and within his Authority. (23-721). (City Manager)

* **MOTION by Councilmember Goins; Seconded by Councilmember Koss, to approve the Consent agenda.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

VI. Public Hearings:

1. Pass on SECOND READING Ordinance 17-2023, an Expedited State Review Comprehensive Plan Text Amendment to expand the very limited geographic area

by which vertical mixed-use projects may be built at 125-units per acre, to include a +/- 4.32 acre parcel of City-owned land located at 915 Florida Ave., Cocoa, Florida (Brevard County Tax Parcel ID 24-36-33-80-23). (23-715). (City Planner)

Mayor Blake shared that he needed to recuse himself from this item due to a personal conflict[1].

City Attorney Garganese stated that this is the Second and Final Reading of Ordinance 17-2023. He read the title into the record as follows:

Ordinance No. 17-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, ADOPTING A LARGE SCALE COMPREHENSIVE PLAN TEXT AMENDMENT; AMENDING A POLICY IN THE FUTURE LAND USE ELEMENT AUTHORIZING THE CITY COUNCIL TO APPROVE BY DEVELOPMENT AGREEMENT RESIDENTIAL DENSITIES OF UP TO 125 DWELLING UNITS PER ACRE RELATED TO VERTICAL MIXED-USE PROJECTS; EXPANDING THE VERY LIMITED GEOGRAPHICAL AREA TO WHICH THE POLICY APPLIES TO INCLUDE A PARCEL OF CITY-OWNED LAND GENERALLY LOCATED SOUTHWEST OF THE INTERSECTION OF ROSA L. JONES DRIVE AND FLORIDA AVENUE AND WHICH IS MORE PARTICULARLY DESCRIBED HEREIN BY PARCEL INFORMATION AND MAP THAT CONSISTS OF APPROXIMATELY 4.32 ACRES, MORE OR LESS, AND IS DESIGNATED MIXED-USE FUTURE LAND USE ON THE FUTURE LAND USE MAP AND WHICH IS DESIGNATED SOUTH END (SE) SUBDISTRICT WITH A COMMERCIAL/MIXED-USE LARGE (CL) BUILDING TYPE ON THE COCOA WATERFRONT OVERLAY DISTRICT REGULATING PLAN; REQUIRING A DEVELOPMENT AGREEMENT BY THE CITY COUNCIL TO APPROVE SUCH PROJECTS ON SUCH REAL PROPERTY UNDER CERTAIN TERMS AND CONDITIONS DEEMED NECESSARY AND ACCEPTABLE TO THE CITY COUNCIL; FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE COMPREHENSIVE PLAN, SEVERABILITY, AND AN EFFECTIVE DATE, AND LEGAL STATUS OF THE PLAN AMENDMENT.

Ms. Neuterman provided a brief background of the item.

Councilmember Koss asked if it has been decided whether the City will put this out for RFP or will the property be put up for sale. In response, City Manager Whitten

[1] Mayor Blake submitted Voting Conflict Form 8B to the Clerk's Office

explained that it will eventually go out for RFP and the sale of the property will be included in the RFP. He provided further clarification regarding the density and the goal of the project which is to increase economic development activity and interest.

Councilmember Goins opened the Hearing to the public. There being no questions or comments, the public portion of the Hearing was closed.

* **MOTION by Deputy Mayor Hearn; Seconded by Councilmember Goins, to approve Ordinance No. 17-2023 on Second and Final Reading with discussion.**

Councilmember Koss shared her reasonings as to why she is opposed to this, and referenced the City's Comprehensive Plan. She further clarified that she is not against development she would just like to see smart development.

Councilmember Barringer thanked Council for their comments. He spoke of the blight that has been there for a while and explained that he feels confident in this process and in the fact that a Development Agreement will be brought before Council before anything is done so any concerns or values Council has can be addressed or negotiated before anything is built.

THE VOTE ON THE MOTION WAS:

AYES: Hearn, Barringer, Goins

NAYES: Koss

THE MOTION CARRIED (3-1)

2. Approval of a Final Subdivision Plat known as Adamson Creek Phase Two consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code, with conditions. (23-723). (City Manager)

Ms. Neuterman provided a brief summary of the item, sharing the location and the history of the project.

Mayor Blake opened the hearing to the public.

Kenneth Ludwa, BSE Consultants, provided clarification to a comment made by Council regarding the flood plains.

There being no further questions or comments, the public portion of the Hearing was closed.

*** MOTION by Councilmember Goins; Seconded by Mayor Blake, to approve the Adamson Creek Phase Two Final Subdivision Plat with the conditions set forth by staff.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

VII. Council Business:

1. Approve the current Code Enforcement Lien for the property located at 411 Thomas Ave., (CE-12-234) be reduced to $1,200.03 as recommended by the Code Enforcement Board. (23-682). (Police Chief)

Joel Hansen, owner of the property at 411 Thomas Avenue, Cocoa, explained that he has invested over $100,000 dollars into the property over the years. He lives in another state and takes care of his wife who has a condition so he is not able to come out as much as he'd like to. Additionally, he has had some issues with the tenants and having to evict them.

He would greatly appreciate it if Council would consider approving the lien reduction for both items.

Councilmember Goins asked Mr. Bunt to explain the history of the violation. In response, Mr. Bunt shared that when Mr. Hansen bought the property in a tax deed sale, the lien was already intact and unfortunately, he did not do his due diligence when he bought it so he did not realize the lien was active. He further clarified that the property was brought back into compliance in 2013.

Additionally, in regard to the next item, it was not the owner that caused the issues resulting in a violation, it was his tenants.

Councilmember Barringer explained that a community has watched this take place over ten years, resulting in a lien for around $125,000 dollars. The Council is now being asked to consider negotiating and reducing this lien for a significant amount of money for a corporation that doesn't necessarily exist or was dissolved. He explained that he did some research and has some concerns about the corporation that owns the property. He asked Mr. Hansen to clarify the status of his corporation.

Further discussion was held on the work that was done on the property and why it has taken so long to address the lien.

Mr. Bunt also pointed out that Mr. Hansen applied for a lien reduction a while ago, however he had already started renovating the property without permits which is why the lien reduction application was not brought before the Code Board sooner as the permits had to be pulled first.

City Attorney Garganese provided clarification regarding Councilmember Barringer's concerns involving the status of Mr. Hansen's corporation. He pointed out that while it is not an issue for a foreign corporation to own real property in Florida, it is required that if the property is going to be rented than the corporation should be registered with the State of Florida which in this case it was not.

* **MOTION by Mayor Blake; Seconded by Councilmember Koss, to approve the Code lien reduction in the amount of $1,200.03 for discussion.**

Councilmember Barringer asked the Mayor to consider amending his motion to reduce the lien to a $50 per day charge instead of the $250 that he was charged which equates to $25,107.96.

City Attorney Garganese explained that if this the amount that Council determines is appropriate, the property owner has thirty days to meet the conditions of Council which includes payment. If payment is not made within thirty days, then the full amount of the lien remains in place against the property.

THE VOTE ON THE MOTION WAS:

AYES: Blake, Goins, Koss

NAYES: Hearn, Barringer

THE MOTION CARRIED (3-2)

2. Approve the current Code Enforcement Lien for the property located at 411 Thomas Ave, (CE-20-708) be reduced to $2,317.19 as recommended by the Code Enforcement Board. (23-683). (Police Chief)

Mr. Bunt explained the two violations on the property. Three notices were sent to the property owner. He noted that his office spoke with Mr. Hansen's son who was a tenant at the property several times and this case was brought before the Code Enforcement Board.

* **MOTION by Councilmember Koss; Seconded by Deputy Mayor Hearn, to deny the Code lien reduction in the amount of $2,317.19 for discussion.**

Mr. Hansen explained that every time he received a letter, he took care of the issue immediately. Unfortunately, it has been perceived that this was all one on-going issue when in fact they were all individual incidents.

Mr. Bunt explained the process for posting the property and how and when the notifications are sent out. He added that a certified letter is also mailed to the property owner's mailing address that is on file with the Brevard County Property Appraiser's office.

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

3. Approval of the requested street closure outside the CBD for the Moore Center Centennial Celebration on December 2, 2023. (23-684). (Director of Comm. & ED Development)

* **MOTION by Mayor Blake; Seconded by Councilmember Koss, to approve the item.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

4. Consider the appointment of Melissa Acosta-Bonilla, Dik Muller and/or Josue Otero to fill the vacancy of an unexpired Regular member term as well as the 1st Alternate member seat on the Code Enforcement Board. (23-712). (Administrative Services Director)

* **MOTION by Councilmember Koss; Seconded by Councilmember Goins, to appoint Josue Otero to fill the Regular member seat vacancy through June, 2024, to appoint Melissa Acosta-Bonilla to fill the 1st Alternate member vacancy and to appoint Dik Muller as 2nd Alternate member.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

VIII. City Business:

Multi-Year Contracts:

None.

IX. Informational Agenda:

1. Report of approved change orders to construction contracts that the City Council has authorized the City Manager, by resolution, to approve in excess of the City Manager's spending authority. (23-687). (Finance Director)

2. FY 2023 September Budget Adjustment Report. (23-688). (Finance Director)

3. City Council data showing the relation between the estimated and actual income and expenses to date. (23-689). (Finance Director)

4. City Council Bi-Weekly Report (October 20 - November 9, 2023). (23-708). (City Manager)

X. Reports:

Deputy Mayor Hearn shared that he enjoyed the Halloween festivities in Cocoa Village. He apologized for not being in attendance in person this evening, and shared that he is currently attending an emergency management conference on the west coast which will help him make more informed decisions which will help benefit the City.

Councilmember Barringer spoke about two events that he attended recently and encouraged the public to attend in the future as well.

Councilmember Goins shared photos from several events he recently attended, including the groundbreaking event at Provost Park this morning.

Councilmember Koss gave a report on District 4. She shared that she is a proud representative on the Florida Solar Energy Advisory Board.

Additionally, she will be speaking this weekend at the World Day of Remembrance being held at Cocoa Riverfront Park on November 19, 2023 from 10-11am.

She also spoke about the IEMO II Conference she attended at the end of October in Daytona Beach and shared some key takeaways.

Councilmember Koss shared that she recently discovered that the City keeps a list of rights-of-way that it maintains. After reviewing the list with the City Manager, she realized there are some inconsistencies with the list. She asked Council if they might consider a consensus to direct staff to address this and bring it back to Council.

Deputy Mayor Hearn agreed with Councilmember Koss.

Councilmember Goins noted that he does not see an issue with the list and explained why.

Mayor Blake shared that he would like to speak with the City Manager and staff to see if any adjustments need to be made first.

Councilmember Barringer added that at this time he would like to do his due diligence as a Councilmember and conduct his own research and possibly have a conversation with the City Manager prior to asking staff to make any adjustments to the list.

Councilmember Koss wished to mention that it was brought to her attention that St. Mark's was not notified about the zoning changes to 430 Brevard Avenue and she just wants to make sure that an issue such as this is avoided and would like to see more robust conversations in the future.

Mayor Blake shared photos and spoke about several events he recently attended as well.

XI. Adjournment:

*** MOTION by Councilmember Goins; Seconded by Mayor Blake, to adjourn the Regular meeting of November 14, 2023.**

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

The meeting adjourned at 8:37 p.m.

_____

Michael C. Blake, Mayor

ATTEST:

_____

Monica Arsenault, Interim City Clerk

APPOINTED OFFICERS (continued)

- A copy of the form must be provided immediately to the other members of the agency.
- The form must be read publicly at the next meeting after the form is filed.

IF YOU MAKE NO ATTEMPT TO INFLUENCE THE DECISION EXCEPT BY DISCUSSION AT THE MEETING:

- You must disclose orally the nature of your conflict in the measure before participating.
- You must complete the form and file it within 15 days after the vote occurs with the person responsible for recording the minutes of the meeting, who must incorporate the form in the minutes. A copy of the form must be provided immediately to the other members of the agency, and the form must be read publicly at the next meeting after the form is filed.

DISCLOSURE OF LOCAL OFFICER'S INTEREST

I, Michael C. Blake, hereby disclose that on Nov 14, 2023

(a) A measure came or will come before my agency which (check one or more)

___ inured to my special private gain or loss;

___ inured to the special gain or loss of my business associate, _____ ;

√ inured to the special gain or loss of my relative, Father & Siblings ;

___ inured to the special gain or loss of _____, by whom I am retained; or

___ inured to the special gain or loss of _____, which is the parent subsidiary, or sibling organization or subsidiary of a principal which has retained me.

(b) The measure before my agency and the nature of my conflicting interest in the measure is as follows:

They owned property adjacent to the property that is effected by ordinance

If disclosure of specific information would violate confidentiality or privilege pursuant to law or rules governing attorneys, a public officer, who is also an attorney, may comply with the disclosure requirements of this section by disclosing the nature of the interest in such a way as to provide the public with notice of the conflict.

Nov 14, 2023
Date Filed

Michael C Blake
Signature

NOTICE: UNDER PROVISIONS OF FLORIDA STATUTES §112.317, A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR AND MAY BE PUNISHED BY ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED $10,000.

FORM 8B MEMORANDUM OF VOTING CONFLICT FOR COUNTY, MUNICIPAL, AND OTHER LOCAL PUBLIC OFFICERS

LAST NAME—FIRST NAME—MIDDLE NAME	NAME OF BOARD, COUNCIL, COMMISSION, AUTHORITY, OR COMMITTEE
Blake, Michael, Carl	City of Cocoa Council
MAILING ADDRESS 207 Blake Ave	THE BOARD, COUNCIL, COMMISSION, AUTHORITY OR COMMITTEE ON WHICH I SERVE IS A UNIT OF: ☐ CITY ☐ COUNTY ☐ OTHER LOCAL AGENCY
CITY Cocoa	COUNTY Brevard
DATE ON WHICH VOTE OCCURRED 11/14/2023	NAME OF POLITICAL SUBDIVISION: MY POSITION IS: ☐ ELECTIVE ☐ APPOINTIVE

WHO MUST FILE FORM 8B

This form is for use by any person serving at the county, city, or other local level of government on an appointed or elected board, council, commission, authority, or committee. It applies to members of advisory and non-advisory bodies who are presented with a voting conflict of interest under Section 112.3143, Florida Statutes.

Your responsibilities under the law when faced with voting on a measure in which you have a conflict of interest will vary greatly depending on whether you hold an elective or appointive position. For this reason, please pay close attention to the instructions on this form before completing and filing the form.

INSTRUCTIONS FOR COMPLIANCE WITH SECTION 112.3143, FLORIDA STATUTES

A person holding elective or appointive county, municipal, or other local public office MUST ABSTAIN from voting on a measure which would inure to his or her special private gain or loss. Each elected or appointed local officer also MUST ABSTAIN from knowingly voting on a measure which would inure to the special gain or loss of a principal (other than a government agency) by whom he or she is retained (including the parent, subsidiary, or sibling organization of a principal by which he or she is retained); to the special private gain or loss of a relative; or to the special private gain or loss of a business associate. Commissioners of community redevelopment agencies (CRAs) under Sec. 163.356 or 163.357, F.S., and officers of independent special tax districts elected on a one-acre, one-vote basis are not prohibited from voting in that capacity.

For purposes of this law, a "relative" includes only the officer's father, mother, son, daughter, husband, wife, brother, sister, father-in-law, mother-in-law, son-in-law, and daughter-in-law. A "business associate" means any person or entity engaged in or carrying on a business enterprise with the officer as a partner, joint venturer, coowner of property, or corporate shareholder (where the shares of the corporation are not listed on any national or regional stock exchange).

* * * * * * * * * * * * * * * * *

ELECTED OFFICERS:

In addition to abstaining from voting in the situations described above, you must disclose the conflict:

PRIOR TO THE VOTE BEING TAKEN by publicly stating to the assembly the nature of your interest in the measure on which you are abstaining from voting; *and*

WITHIN 15 DAYS AFTER THE VOTE OCCURS by completing and filing this form with the person responsible for recording the minutes of the meeting, who should incorporate the form in the minutes.

* * * * * * * * * * * * * * * * *

APPOINTED OFFICERS:

Although you must abstain from voting in the situations described above, you are not prohibited by Section 112.3143 from otherwise participating in these matters. However, you must disclose the nature of the conflict before making any attempt to influence the decision, whether orally or in writing and whether made by you or at your direction.

IF YOU INTEND TO MAKE ANY ATTEMPT TO INFLUENCE THE DECISION PRIOR TO THE MEETING AT WHICH THE VOTE WILL BE TAKEN:

- You must complete and file this form (before making any attempt to influence the decision) with the person responsible for recording the minutes of the meeting, who will incorporate the form in the minutes. (Continued on page 2)

Legislation Details (With Text)

File #:	24-102	**Version:**	1	**Name:**	
Type:	Minutes			**Status:**	Agenda Ready
File created:	2/22/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approval of the December 19, 2023 Special City Council Meeting Minutes as written or with amendments.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	12-19-2023 Minutes ADA.pdf Exhibit A Exhibit B Exhibit C				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 22, 2024
Agenda Date: February 27, 2024
Prepared By: Monica Arsenault, City Clerk
Through:
Requested Action:
Approval of the December 19, 2023 Special City Council Meeting Minutes as written or with amendments.

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

Approval of the December 19, 2023 Special City Council Meeting Minutes as written or with amendments.

MINUTES
City of Cocoa
Special Meeting of The City Council

December 19, 2023

A Special City Council Meeting was held on Tuesday, December 19, 2023, in Cocoa City Hall, in City Council Chambers, located at 65 Stone Street, in Cocoa, Florida, 32922, as publicly noticed.

I. Opening Matters:

Mayor Blake called the meeting to order at 6:04 p.m.

Pastor Brock provided the invocation; Pastor Randy Alonso provided a prayer for the City of Cocoa and Kendall Moore led the assembly in the Pledge of Allegiance to the Flag of the United States of America.

The Interim City Clerk took the roll.

PRESENT:	Michael C. Blake	Mayor
	Lavander Hearn	Deputy Mayor
	Matthew Barringer	Councilmember
	Alex Goins	Councilmember
	Lorraine Koss	Councilmember
	Anthony Garganese	City Attorney
	Stockton Whitten	City Manager
	Monica Arsenault	Interim City Clerk

OTHER STAFF MEMBERS PRESENT:

Abby Morgan, Public Works Director; Charlene Neuterman, Community Services Director; Evander Collier, Police Chief; Samantha Senger, Communications & Economic Development Director; and Lisa Richardson, Help Desk Support Tech.

II. Approval of Agenda and Minutes:

1. Agenda: Regular Meeting of December 19, 2023. (23-792).

*** MOTION by Deputy Mayor Hearn; Seconded by Councilmember Koss to approve the agenda for the Special meeting of December 19, 2023 as written.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

III. Awards and Presentations:

1. Presentation of the Food Drive Trophy to the City of Cocoa from the Brevard Sharing Center. (23-791). (David Brubaker)

David Brubaker, Brevard Sharing Center, presented the City Council with the 1st place trophy for the annual Food Drive competition.

IV. Delegations:

Rev. JB Dennis, 3710 Catalina Dr., spoke about the Police Advisory Board resolution that establishes the requirements of the Board. He mentioned that they are supposed to meet every other month and would like to know when the next meeting is. In response, Mayor Blake stated that the next meeting would be posted on the City's website sometime after the new year.

Darius Hay, 1966 Amalfi Dr., Cocoa, talked about his growing ministry. Last night they went out and provided basic essentials to the community and the homeless. There is a need for the homeless to be helped and their ministry is in support of anyone else who is in support of the homeless.

V. Consent Agenda:

(A) General Consent Items:

(B) Multi-Year Contracts:

VI. Public Hearings:

1. Adopt on Second and Final Reading of a Zoning Map Amendment for a +/- 1.002-acre portion of the property located at 825 Forrest Ave., from INST (Institutional) to RU-2-15 (Multiple Family Dwelling). (23-786). (Planning Consultant).

City Attorney Eick shared that this is the Second and Final Reading of the Ordinance and read the title into the record as follows:

Ordinance No. 23-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING THE OFFICIAL ZONING MAP DESIGNATION OF A PORTION OF ONE (1) PARCEL OF REAL PROPERTY, THAT PORTION TOTALING 1.002 ACRES, MORE OR LESS, AND GENERALLY LOCATED NORTHWEST OF THE INTERSECTION OF GRIMES STREET AND FORREST AVENUE AT 825 FORREST AVENUE, COCOA, FLORIDA, MORE PARTICULARLY DEPICTED AND LEGALLY DESCRIBED ON EXHIBIT "A" ATTACHED HERETO, FROM INSTITUTIONAL (INST) TO MULTIPLE-FAMILY DWELLING (RU-2- 15); PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY AND AN EFFECTIVE DATE.

City Attorney Eick added that nothing has changed since the First Reading.

Steven Noto, Consultant from RVi, provided a brief presentation[1] and gave a summary of the item.

Mr. Noto clarified that no new construction will be taking place on the property.

Councilmember Koss asked that in the future if any new slides are added to the presentation that they be made available as soon as possible. She felt that this item has been fast tracked, resulting in a Second and Final Reading in just thirteen days since the Planning and Zoning meeting.

Hannah French, Porchlight Foundation, reviewed the aerial photo that was provided in Mr. Noto's presentation. She also wished to clarify one of the slides, explaining that the building has since been modified. The slide added to the most recent deck seeks to clarify the extents of the rezoning by overlaying the survey onto the aerial photo. The latest presentation should be referenced as it is most accurate.

Mayor Blake opened the hearing to the public.

Chelsea Jacobs, 409 Harrison Ave., Cape Canaveral, and advocate of Matthew's Hope, the focus of the community has been on the negative aspects and of

[1] Exhibit A: 12/19/2023 City Council Presentation (Matthew's Hope)

individual experiences with the homeless. While their concerns are justified, that is not what this vote is for tonight.

The focus should be on those who need help, such as senior citizens who cannot afford the rent based on an income that was not made for this economy. There will be plenty of services that will provide so many safe guards such as financial mentoring, monthly drug testing, bible studies and regular inspections.

Shelley Bradford, 825 Forrest Ave., Cocoa, and Vice President and Executive Director of Matthew's Hope, thanked those who have supported their organization. She hopes that everyone will take the time to research their cause and see why she dedicates so much of her time to the organization.

Sarah Dewitz, 850 Montego Bay Dr., Merritt Island, and advocate for Matthew's Hope, talked about extending compassion and offering support. Matthew's Hope empowers the homeless and gives them the tools to better their lives.

Shannon Diaz, 825 Forrest Ave., Cocoa, and advocate of Matthew's Hope, talked about her journey with Matthew's Hope. She shared that she had to show her dedication to the program and nothing was handed to her. Now she is able to reach her hand out and help the next person.

Sharlene Dewitz, 825 Forrest Ave., Cocoa, and advocate for Matthew's Hope, shared the story of one of the gentlemen who came to Matthew's Hope for help. He is unable to get the surgery he needs because he has nowhere to recover. She shared a recording of some music he played for Council.

Judy Joustra, 15 N. Indian River Dr., Cocoa, hopes that the Council has considered any negative impacts to those who live in the area and pay taxes in the City of Cocoa. She hopes they have considered the risks vs. the benefits of this item. She would like to gain a better understanding and be well informed of what impacts this will have on the community.

Councilmember Goins asked Ms. Joustra to be more specific about what amenities she feels she can no longer enjoy. In response, Ms. Joustra shared an example of a homeless woman doing her laundry in the women's restroom at the local park she used to enjoy and was hanging her laundry to dry on the wall.

Connie Smith, 15 N. Indian River Dr., Cocoa, explained that while Matthew's Hope is very respected for what they do, there are concerns about what kind of people they will attract. There is an issue with safety. She does not feel safe walking at night anymore. She has concerns about this being an ever-expanding service that will perpetuate the problem and attract more drug addicts and mentally ill people.

Councilmember Koss talked about Cocoa having a big heart and feels that the City should work with Brevard County and other players to address this County-wide issue.

Deputy Mayor Hearn shared that he agrees with Councilmember Koss that the City needs to work with the County to address the homelessness issues, however as a firefighter he understands the needs of the homeless because he responds to homeless camps frequently. There are working families with kids who are in school who are living out of their cars right now because they can't afford the rent.

Additionally, he does not feel that social services are the ones who attract the homeless as they are congregating all over the County, even in towns and cities who do not offer these types of services.

Meredith Pritchett, 115 N. Indian River Dr., Cocoa, has several concerns, noting that not a lot of information was put out to the community and two meetings were held very close together. She would like to know more about the background checks as she is a single woman living in the community. She shared a few experiences she has had recently with panhandlers as well as being stalked.

Jamie Pritchett, 115 N. Indian River Dr., Cocoa, talked about the lack of information that was put out to the community as well as the petition that was turned in at the last meeting showing the amount of people who were against this item and she has several concerns about how this will impact the community.

Councilmember Barringer asked City Manager Whitten to share how this item was advertised to the community. In response, City Manager Whitten shared that a postcard was sent to any resident within five hundred feet of the property. It was also pushed out on the City's website and social media.

Bakhan Hamagharib, 3461 Windsor Lake Cir., Sanford, FL, talked about being in a similar program to Matthew's Hope. She was a full-time student earning her Master's degree, working a full-time job and raising a special needs son. She never used drugs or drank alcohol and is now paying taxes just like everyone else. She would like everyone to consider extending a little more kindness and compassion because you never know what someone could be going through.

Scott Billue, 825 Forrest Ave., Cocoa, and Pastor and President of Matthew's Hope, shared statistics and reiterated the purpose of Matthew's Hope and reviewed the services they offer. He talked about their guidelines and how they monitor the type of people that come in and out of the facility.

Additionally, in response to a question posed by Councilmember Goins, he stated that he is willing to buy a ring camera for anyone who cannot afford one to help the community feel safe and to assist in identifying any trouble makers, so long as they

have previously been to Matthew's Hope and can be recognized by their facial recognition software.

Further discussion was held between Pastor Billue

* **MOTION by Councilmember Koss to postpone this item for another month to allow more time for information to be distributed to the public.**

MOTION DIED FOR A LACK OF SECOND.

* **MOTION by Mayor Blake; Seconded by Deputy Mayor Hearn to approve Ordinance No. 23-2023 on Second and Final Reading for discussion.**

Councilmember Goins suggested that Council consider holding a meeting in the future and coordinate with the Police Department and the Sheriff's Office to address some of the concerns that they heard this evening, including panhandling and safety issues.

Further discussion was held on coordinating a meeting in the future.

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins

NAYS: Koss

THE MOTION CARRIED (4-1)

2. Adopt on Second and Final Reading of a PUD / Rezoning (Ordinance 22-2023) for one (1) parcel from Brevard County General Use (GU) to City of Cocoa Planned Unit Development (PUD), a Large-Scale Site Plan, and a Preliminary Subdivision consistent with Chapter 18 Subdivisions and Appendix A Zoning of the City Code for Windward Preserve with conditions outlined in the Staff Report. (23-787). (Planner)

City Attorney Eick shared that this is the Second and Final Reading of the Ordinance and read the title into the record as follows:

Ordinance No. 22-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING THE OFFICIAL ZONING MAP DESIGNATION OF ONE (1) PARCEL OF REAL PROPERTY, TOTALING 212.10 ACRES, MORE OR LESS, AND GENERALLY LOCATED NEAR THE SOUTHEAST CORNER OF INTERSTATE 95 AND STATE ROAD 528, IN COCOA, FLORIDA, MORE PARTICULARLY DEPICTED AND LEGALLY

DESCRIBED ON EXHIBIT "A" ATTACHED HERETO, FROM BREVARD COUNTY GENERAL USE (GU) TO CITY OF COCOA PLANNED UNIT DEVELOPMENT (PUD); PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTION, SEVERABILITY, AND AN EFFECTIVE DATE.

Eric Raasch, City Consultant with Inspire Placemaking Collective, provided a presentation[2] and gave a summary of the item, noting that a condition had been added to the staff report since the First Reading and provided an explanation.

Heather Isaacs, Vice President of Land Development for Taylor Morrison, provided a presentation[3] for Windward Preserve, explaining the layout and amenities of the project.

Tom Sullivan, attorney representing Taylor Morrison, stated that his firm agrees with the findings and conditions identified by City staff and are here to answer any questions.

Mayor Blake opened the hearing to the public.

Jim Hattaway, 5041 Ranchwood Dr., Cocoa, would like to know what the traffic impact will be on Friday Road from this project.

Jane Provancha, 2562 Meadow Ln., Cocoa, loves Cocoa and has lived in Cocoa for a long time. She lives in a neighborhood adjacent to the subject property. Her and her husband saved their money to buy property there so they could enjoy the quiet, low traffic roads where they can walk, run and ride their horses. She feels they are being encroached upon by all this new traffic and are losing their quality of life. She hopes Council will take all of this into consideration.

Lillian Leber, 5150 Dalehurst Dr., Cocoa, stated that she agrees with Ms. Provancha and talked about the land and the horses. She feels this is wrong and needs to be re-thought to come up with something better.

LJ Coddens, 1696 Friday Rd., Cocoa, shared a concern about an increase with golf cart traffic that will come with new development. He is also concerned with the dump trucks and shared that they already have an issue with them speeding in the area.

Josie Howe, 2118 Winston Dr., Cocoa, talked about her family and how they came to Cocoa. They love Cocoa and the area they live in and spoke about their horse. She feels that this new development is not in harmony with what is currently there. She has concerns about stormwater and traffic and asked Council to consider half-acre or 1-acre homes.

[2] Exhibit B: 12/19/2023 Inspire Placemaking Collective Presentation
[3] Exhibit C: 12/19/2023 Windward Preserve

Alicia Weaver, 2270 Friday Rd., Cocoa, appreciates the fact that the City Council has taken the time to hear the residents, however the residents still feel that the City of Cocoa has taken the opportunity to encroach on the quiet-style living that the residents have enjoyed for many years. They would like the City to take some action. She also has concerns regarding stormwater and has questions about who their first responders will be and how they will support the new community.

Lee Deyd, 2633 Horseshoe Ct., Cocoa, also has concerns about traffic and shared pictures of her horses. She asked Council to consider half-acre lots.

Jennifer Thervien, 2790 Pine Lily Ln., Cocoa, has lived in Brevard County for over fifty years. She feels these meetings were rushed and the City is not considering the residents that live in the area. She has concerns about climate change and what those impacts look like and she is also curious to know more about the traffic calming devices. She does not like the amount of traffic this development will bring and feels that the City is not doing their part in preserving their way of life.

Daniel Happel, 5041 Scott Rd., Cocoa, has experience in stormwater and water treatment. He looked through the reports and has several concerns and has some questions. He is not necessarily opposed to the project but just wants to make sure things are done correctly.

Kristel Robertson, 4695 N. Friday Circle, Cocoa, talked about the decrease in the quality of the roads in the area after the Flying J was built. She is concerned because she doesn't want their neighborhood to become Viera. The area can't handle the amount of traffic this development will bring.

Wilma Hurst, 2100 Cox Rd., Cocoa, has lived on Cox Road since she was five years old. She shares the same concerns as her neighbors, including the capacity of the schools, stormwater infrastructure and traffic.

Shannon Freeland, 2652 Horseshoe Ct., Cocoa, will be directly impacted by this development as her property backs up to it. Their roads will not be able to handle the incoming traffic and pointed out that they don't have sidewalks on Friday Road. She would like Council to consider holding a meeting with the residents to see how they will be directly affected.

She added that while she realizes that development will come and growth is good for the community, she would just like Council to consider what will make sense for their area.

Bruce Mason, 2596 N. Pacer Ln., Cocoa, also shared his concerns regarding traffic and asked to know more about what the traffic calming devices are.

Mary Gregory, 1800 Friday Rd., Cocoa, reiterated that she has concerns about the increase of traffic in the area.

There being no further questions or comments, the public portion of the hearing was closed.

In response to a question posed by Councilmember Koss, City Manager Whitten spoke about FDOT's Five-Year Work Program.

Additionally, Councilmember Koss spoke about her concerns regarding drainage.

Further discussion was held on the history of the property.

* **MOTION by Mayor Blake; Seconded by Councilmember Barringer, to approve Ordinance No. 22-2023 on Second and Final Reading to include the conditions set forth by staff with discussion.**

Councilmember Barringer pointed out that this project is in his District and knows the area well as he lives there. He is very familiar with the issues that the residents have brought forward tonight and he recognizes that this is a change and this area is not what it was several years ago, however he feels that there is a balance.

He added that for those who live in the County who have further concerns about their roads and drainage should contact their County Commissioner, Rita Pritchett.

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins

NAYS: Koss

THE MOTION CARRIED (4-1)

3. Approval of the Amended and Restated Settlement Implementation Agreement with Mountain Cove Homes at Lakes at Cocoa Grove, LLC, related to the development north of State Road 528 and east of I-95, Tax Parcel ID # 24-35-10-00-3. (23-790). (City Attorney)

Kendall Moore, 895 Barton Blvd., Rockledge, accompanied by Jose Gonzalez, Executive Vice President of Florida East Coast Industries (Brightline), gave a summary of the project.

Mayor Blake opened the hearing to the public.

There being no questions or comments, the public portion of the hearing was closed.

* **MOTION by Mayor Blake; Seconded by Councilmember Goins, to approve the Amended and Restated Settlement Implementation Agreement with Mountain Cove Homes at Lake at Cocoa Grove, LLC.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

4. Adopt on Second and Final Reading proposed Ordinance 25-2023, a zoning text amendment amending Appendix A, Zoning, Article XIII, Supplementary District Regulations, of the Zoning Ordinance of the City of Cocoa to add a new Section 33, Kava and Kratom, establishing distancing requirements between establishments selling Kava beverages and/or Kratom products and certain other enumerated land uses; providing for the repeal of prior inconsistent ordinances and resolutions, incorporation into the code, severability, and an effective date. (23-789). (City Planner)

City Attorney Eick shared that this is the First Reading of the Ordinance and read the title into the record as follows:

ORDINANCE NO. 25-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING APPENDIX A, ZONING, ARTICLE XIII, SUPPLEMENTARY DISTRICT REGULATIONS, OF THE ZONING ORDINANCE OF THE CITY OF COCOA TO ADD A NEW SECTION 33, KAVA AND KRATOM; ESTABLISHING DISTANCING REQUIREMENTS BETWEEN ESTABLISHMENTS SELLING KAVA BEVERAGES AND/OR KRATOM PRODUCTS AND CERTAIN OTHER ENUMERATED LAND USES; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

City Attorney Eick noted that there have been no changes since the First Reading.

Mayor Blake opened the hearing to the public.

Manny Martinez, 6356 Brandt St., Cocoa, has been a Cocoa resident for many years. He explained that he owns a food truck and sells these products and this will directly affect him and his family if it is not approved.

Additionally, he shared the positive results that came from a study that was conducted from Florida State University. He further discussed what Kratom and Kava are and expressed that it is not a drug.

Shawna Lopez, 1585 Monte Carlo Ct., Merritt Island, is an owner of a Kratom and Kava bar that is family owned and operated in Cocoa Beach. She encouraged everyone to come out and visit her bar so they can see what it is about.

Geneva Anderson, 995 Beacon Rd., has been going to kava bars for over ten years and wished to point out that kava bars are not the ones who are doing anything wrong. They ID you and run their businesses legally. The ones who should be monitored and won't be affected by these restrictions are the ones operating out of gas stations and smoke shops.

She mentioned that kava is completely different from marijuana and alcohol. It doesn't hurt or impair you and does not have any hallucinogen type properties.

There being no further questions or comments, the public portion of the hearing was closed.

* **MOTION by Councilmember Barringer; Seconded by Deputy Mayor Hearn, to approve Ordinance No. 25-2023 on Second and Final reading.**

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

5. Adopt on Second and Final Reading Ordinance 26-2023, a zoning text amendment, amending Appendix A, Article XIX, Section 2, Relating to the meeting schedule of the Planning and Zoning Board; providing for the repeal of prior inconsistent ordinances and resolutions, incorporating into the code, severability, and an effective date. (23-788). (City Planner)

City Attorney Eick shared that this is the Second and Final Reading of the Ordinance and read the title into the record as follows:

Ordinance No. 26-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA; AMENDING THE ZONING ORDINANCE OF THE CITY OF COCOA, APPENDIX A, ARTICLE XIX, SECTION 2, RELATING TO THE MEETING SCHEDULE OF THE PLANNING AND ZONING BOARD; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

City Attorney Eick added that no changes have been made since the First Reading.

Mayor Blake opened the hearing to the public.

There being no questions or comments, the public portion of the hearing was closed.

* **MOTION by Councilmember Koss; Seconded by Mayor Blake, to approve Ordinance No. 26-2023 on Second and Final Reading.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0).

6. Adopt on Second and Final Reading of Ordinance 24-2023, a zoning text amendment, amending Chapter 3, Advertising and Signs, Sections 3-5 and 3-23 of the Code of the City of Cocoa regarding Flags, providing for the repeal of prior inconsistent ordinances and resolutions, incorporation into the code severability, and an effective date. (23-785). (City Planner)

City Attorney Eick shared that this is the Second and Final Reading of the Ordinance and read the title into the record as follows:

Ordinance No. 24-2023

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, AMENDING CHAPTER 3, *ADVERTISING AND SIGNS*, SECTIONS 3-5 AND 3-23 OF THE CODE OF THE CITY OF COCOA REGARDING FLAGS; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, INCORPORATION INTO THE CODE, SEVERABILITY, AND AN EFFECTIVE DATE.

Mayor Blake opened the hearing to the public.

There being no questions or comments, the public portion of the hearing was closed.

* **MOTION by Councilmember Barringer; Seconded by Mayor Blake, to approve Ordinance No. 24-2023 on Second and Final Reading.**

THE VOTE ON THE MOTION WAS:

AYES: Blake, Barringer, Goins

NAYES: Hearn, Koss

THE MOTION CARRIED (3-2)

VII. Council Business:

VIII. City Business:

Multi-Year Contracts:

None.

IX. Informational Agenda:

X. Reports:

City Manager Whitten discussed the City's crime rate and the rumors that are put out when in fact the City's overall crime rate has been decreasing and he wished to highlight that.

Additionally, he talked about SR524 and wished to highlight FDOT's Five-Year Work Program. This ensures that the design will be done within the next five years.

City Manager Whitten spoke briefly about a letter he received from Brevard County in regard to the pier at Lee Wenner Park. He shared that it is the County's intention to transfer ownership of the county-owned Lee Wenner pier to the City of Cocoa, which is something that the Council had previously indicated interest in getting back from the County.

He noted that an item will be brought forward in January so Council can either accept or deny the offer.

Councilmember Goins shared photos from recent events he attended.

Councilmember Barringer thanked Waste Management for picking up stray trash along the road in and around the Adamson Creek neighborhood.

Deputy Mayor Hearn shared that he was able to attend the Boys and Girls Club celebration over the weekend and it was really great.

Councilmember Koss shared photos from events she recently attended and spoke briefly about the Florida League of Cities Conference she attended.

Mayor Blake also shared some photos from events he recently attended.

XI. Adjournment:

*** MOTION by Mayor Blake; Seconded by Deputy Mayor Hearn, to adjourn the Special meeting of December 19, 2023.**

AYES: Blake, Hearn, Barringer, Goins, Koss

THE MOTION CARRIED UNANIMOUSLY (5-0)

The meeting adjourned at 10:33 p.m.

_____

Michael C. Blake, Mayor

ATTEST:

_____

Monica Arsenault, Interim City Clerk

COCOA
FLORIDA

City Council Meeting

December 19, 2023



Exhibit A: 12/19/2023 City Council Presentation
(Matthew's Hope)

THE PORCHLIGHT FOUNDTAION

Rezoning Request



COCOA
FLORIDA

The Porchlight Foundation
Location Map

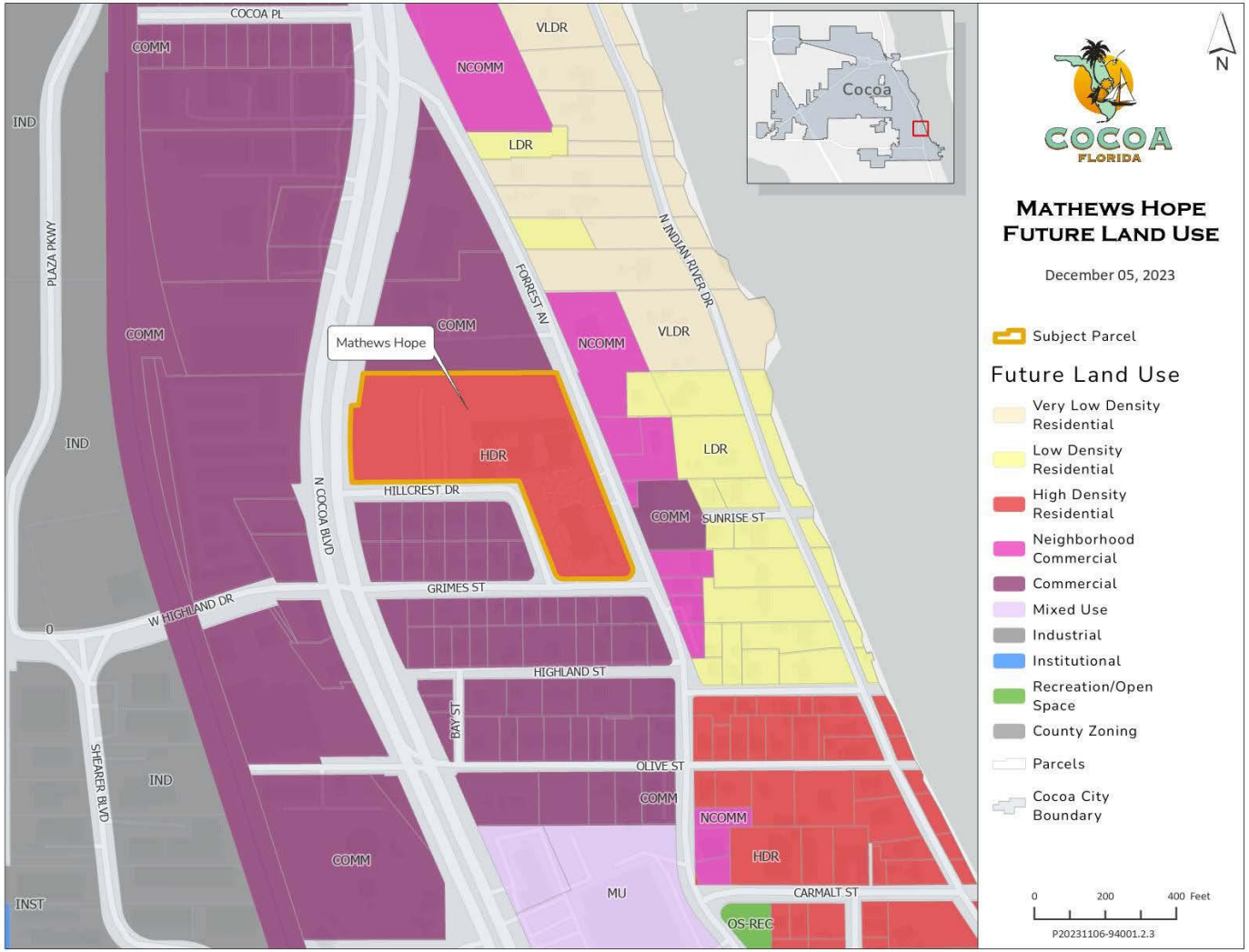
COCOA
FLORIDA



- The +/-5.88-acre subject property is located at the northwest intersection of Grimes St., and Forrest Ave., as well as the northeast intersection of US HWY 1 and Hillcrest Dr.
- The Subject Property currently operates as Matthew's Hope, a non-profit, faith based homeless outreach ministry.

The Porchlight Foundation
Future Land Use Map

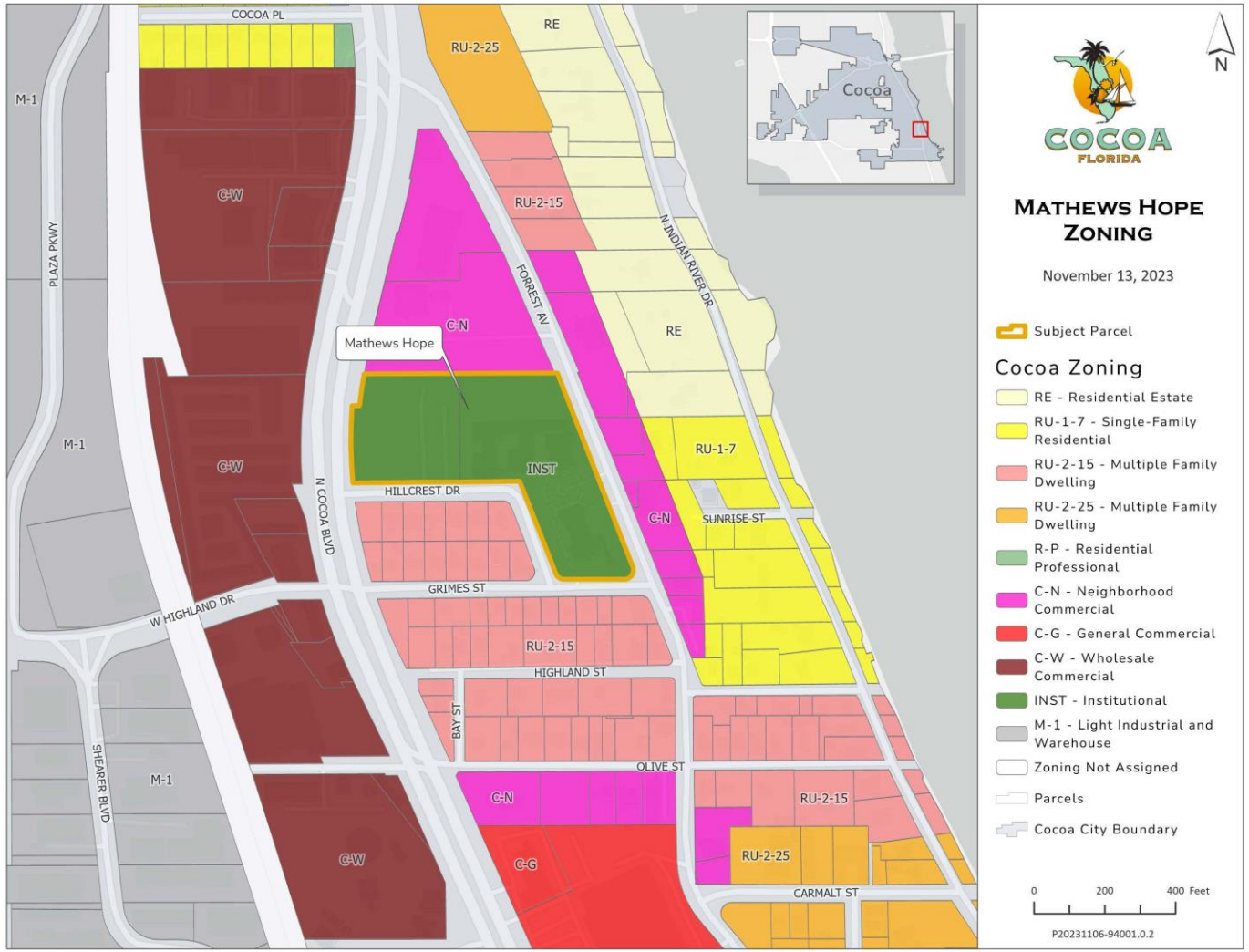
COCOA
FLORIDA



- The Future Land Use designation of the Subject Property is HDR, High Density Residential.
- The FLU designation of the entirety of the Subject Property was changed on July 22, 2023, from COMM, Commercial, to HDR.

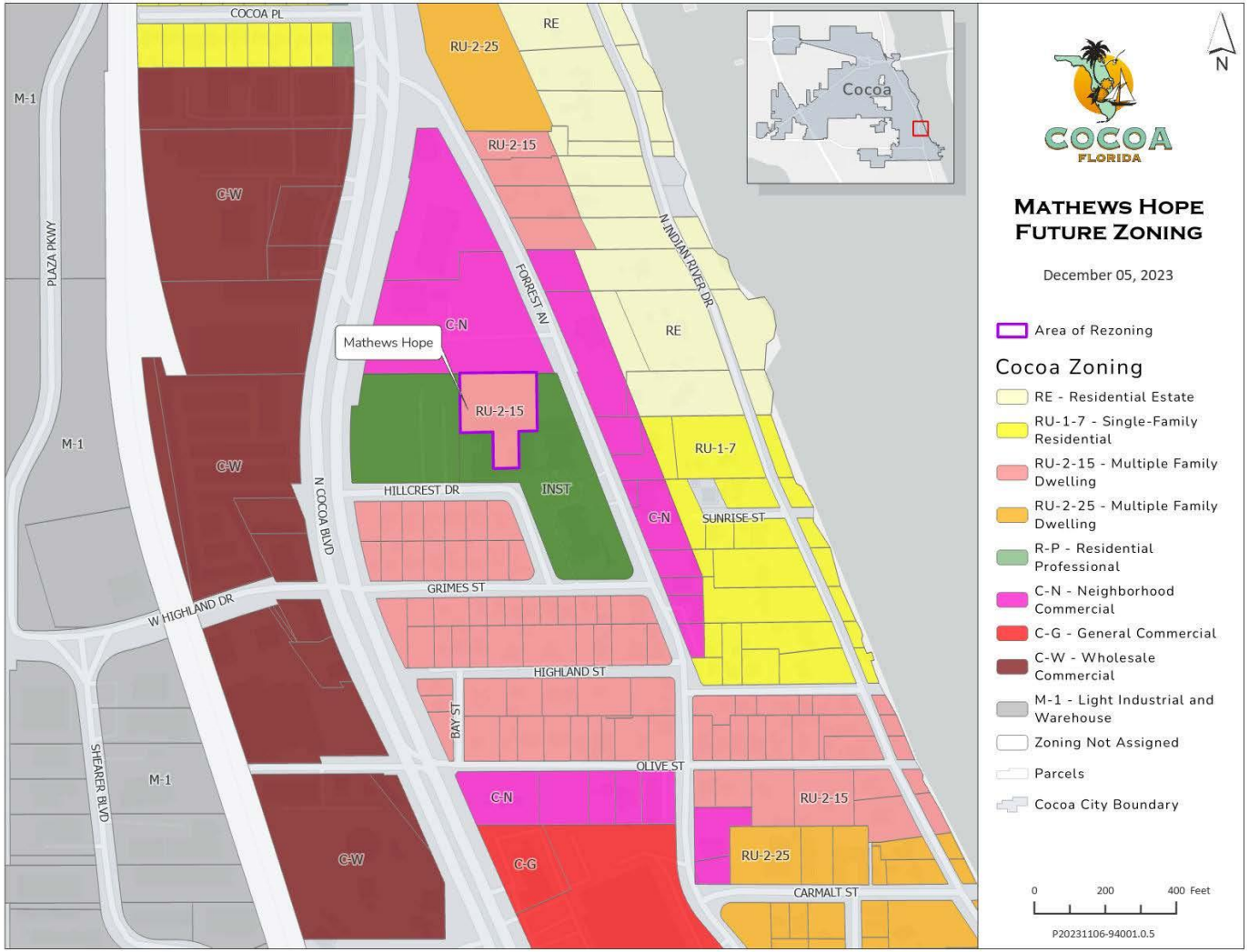
The Porchlight Foundation
Zoning Map

COCOA
FLORIDA



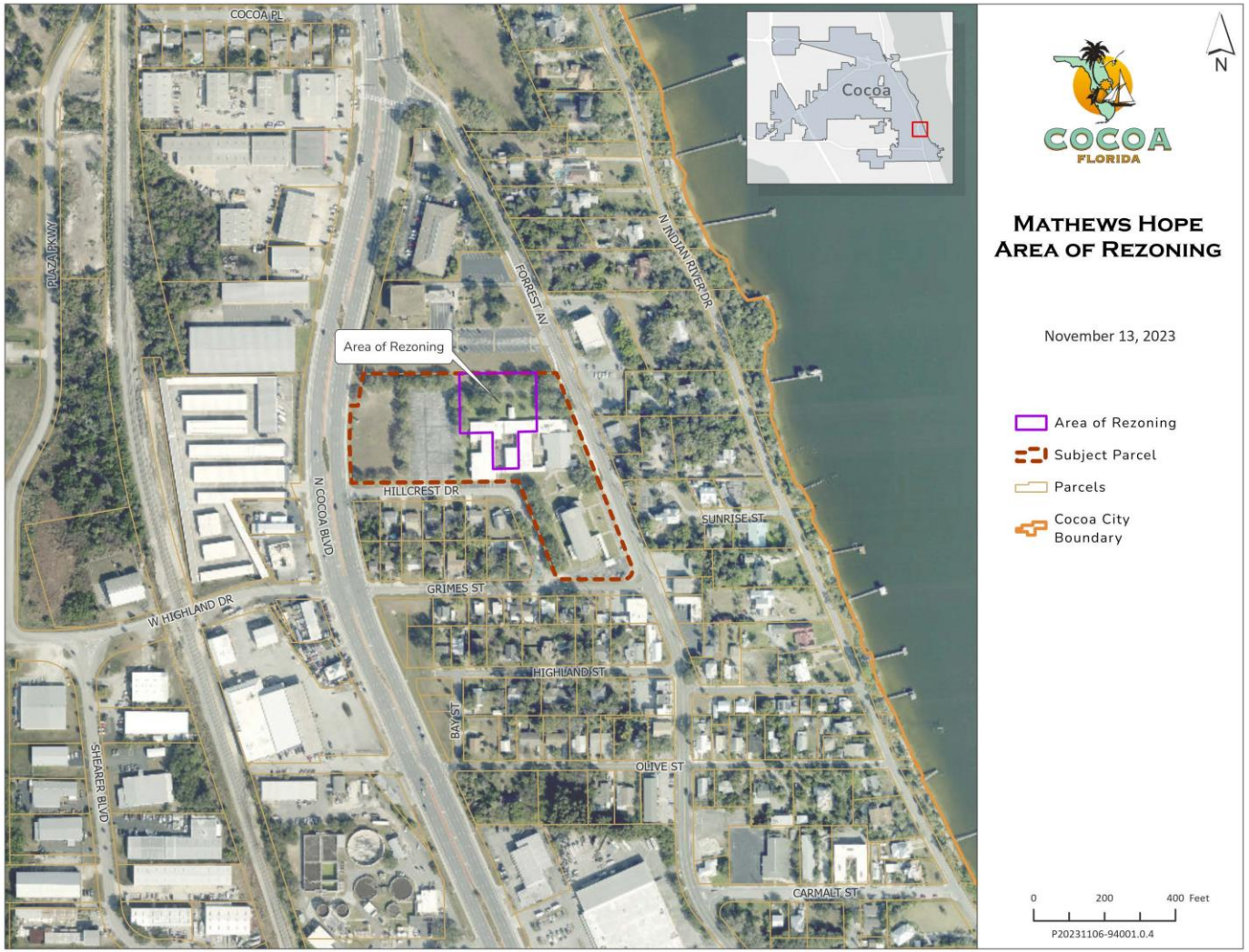
- The zoning of the Subject Property is INST, Institutional.
- The Subject Property was previously split zoned: RU-2-15 on the eastern side, and RU-2-25 on the western side.

The Porchlight Foundation
Zoning Map



- The applicant is requesting a rezone of +/-1.002 acres of the Subject Property to RU-2-15.
- The map shown generally indicates the area that will be rezoned.

The Porchlight Foundation
Zoning Map



- The applicant is requesting a rezone of +/-1.002 acres of the Subject Property to RU-2-15.
- The map shown, generally indicates the area that will be rezoned.

The Porchlight Foundation
Zoning Map

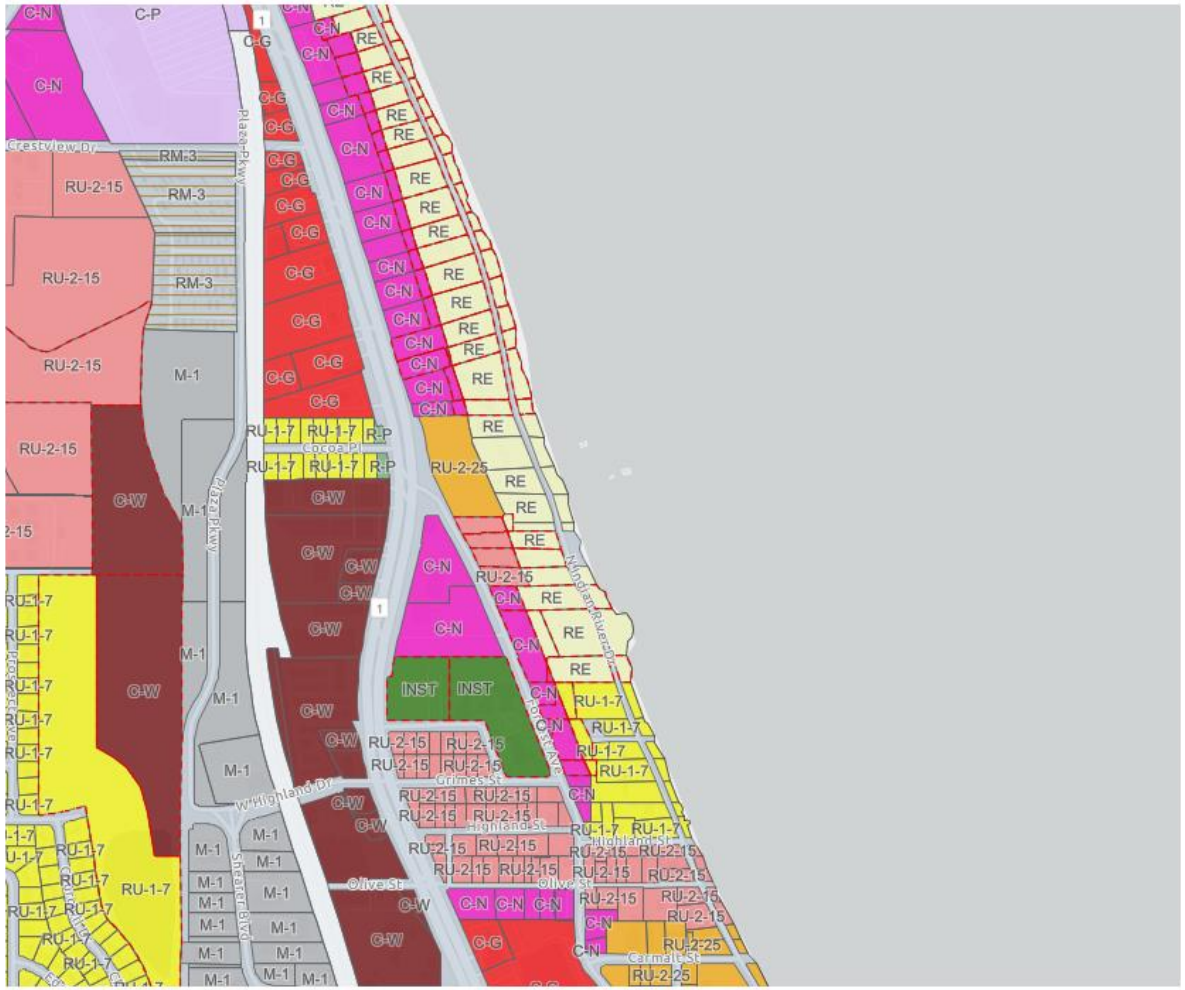
COCOA
FLORIDA



- The applicant is requesting a rezone of +/-1.002 acres of the Subject Property to RU-2-15.
- The overlay map shown, generally indicates the area that will be rezoned.

The Porchlight Foundation
Zoning Map

COCOA
FLORIDA



Cocoa Zoning

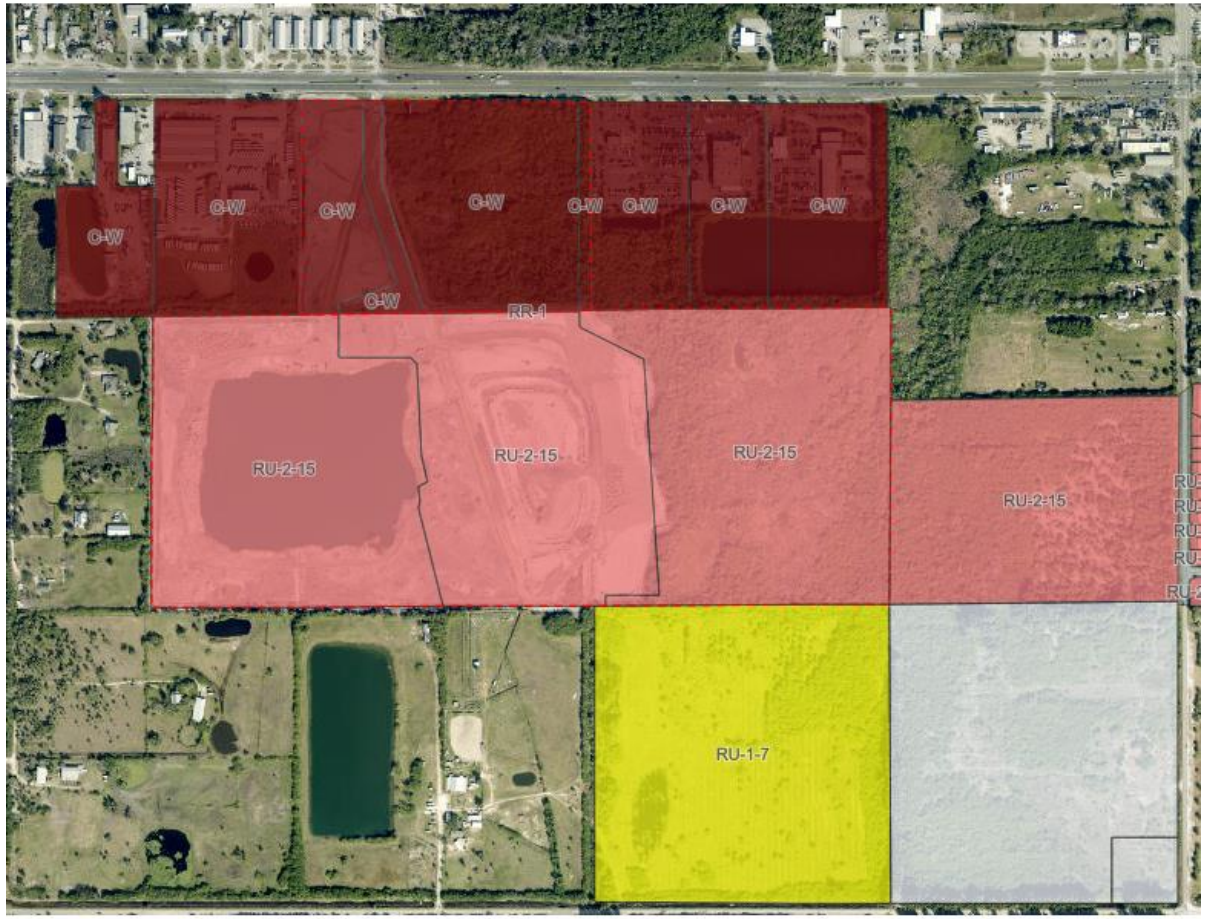
- RA - Residential Agricultural
- RR-1 - Rural Residential
- RE - Residential Estate
- RU-1-7 - Single-Family Residential
- RU-1-7a - Single-Family Residential
- RU-2-10 - Low Density Single & Multiple Family Residential
- RU-2-15 - Multiple Family Dwelling
- RU-2-15 and C-G
- RU-2-25 - Multiple Family Dwelling
- RM-3 - Planned Residential for Mobile Home Park
- R-P - Residential Professional
- C-R - Restricted Commercial
- C-N - Neighborhood Commercial
- CBD - Central Business
- CBD-CVO - Central Business Cocoa Village Overlay
- P-S - Professional, Offices and Services
- C-P - Commercial Parkway
- C-C - Core Commercial
- C-G - General Commercial
- C-W - Wholesale Commercial
- PUD - Planned Unit Development
- UMD - Urban Mixed Use
- INST - Institutional
- M-1 - Light Industrial and Warehouse
- M-2 - Manufacturing and Industrial
- Zoning Not Assigned

Split Lots

The Porchlight Foundation
Zoning Map

COCOA
FLORIDA

Cocoa Grand Apartments



Split Lots

Cocoa Zoning

- RA - Residential Agricultural
- RR-1 - Rural Residential
- RE - Residential Estate
- RU-1-7 - Single-Family Residential
- RU-1-7a - Single-Family Residential
- RU-2-10 - Low Density Single & Multiple Family Residential
- RU-2-15 - Multiple Family Dwelling
- RU-2-15 and C-G
- RU-2-25 - Multiple Family Dwelling
- RM-3 - Planned Residential for Mobile Home Park
- R-P - Residential Professional
- C-R - Restricted Commercial
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- CBD - Central Business
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- P-S - Professional, Offices and Services
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- C-C - Core Commercial
- C-G - General Commercial
- C-W - Wholesale Commercial
- PUD - Planned Unit Development
- UMD - Urban Mixed Use
- INST - Institutional
- M-1 - Light Industrial and Warehouse
- M-2 - Manufacturing and Industrial
- Zoning Not Assigned

Rezoning Request

- The reason for the request is that the Applicant wishes to expand the existing Matthew's Hope facilities on-site to include multi-family units in the +/-1.002 acres of the +/- 5.88-acre Subject Property and to include the existing day care facility, which received Special Exception approval from the Board of Adjustment on February 1, 2023, within the partial rezoning area.
- The specific location of the rezoning area is more centrally located on the site as opposed to being on the "western portion", as shown in the exhibits attached to this staff report. The planned use for the rezoning area is to provide low-income multi-family units as part of the Matthew's Hope organization that currently operates on the Subject Property.
- The multi-family units would be constructed within a portion of the existing structure in space that previously was utilized as classrooms for the former church.

Rezoning Request

- On July 25, 2023, the City Council adopted Ordinance 06-2023, which amended the Future Land Use Map (FLUM) designation of the Subject Property from COMM, Commercial, to HDR, High Density Residential. The purpose of the FLUM amendment was to complete the first step of regulatory amendments prior to submittal of this rezoning request.
- The Subject Property was previously zoned RU-2-15 on the eastern portion of the property, and RU-2-25 on the western portion. The purpose of the previous zoning change to Institutional in 2016 was to provide for an electronic sign, which are not permitted in residential zoning districts.

Rezoning Request

- The existing FLU designation of the Subject Property allows a maximum residential density of 25 dwelling units per acre. However, only +/-1.002 acres of the Subject Property is proposed to be classified as RU-2-15 as part of this request. The RU-2-15 zoning district has a maximum residential density of 15 units per acre. As a result, a maximum of 15 residential units could be constructed on the +/-1.002 acres. The applicant is requesting to provide a maximum of 6 dwelling units.
- A full staff analysis has been provided on pages 2-6 of the staff report. The report provide the analysis of the criteria contained in the City of Cocoa Code of Ordinances, Part II, Appendix A, Article XXI, Section 1(G).

Rezoning Request

- Findings of Note:
  - a. *The proposed change is contrary to the established land use pattern.*

    Staff Finding: The surrounding land areas consist of a mixture of residential, non-residential, and institutional uses. The residential uses consist of land zoned RU-2-15, with Commercial Future Land Use, developed as single-family homes. The proposed RU-2-15 zoning district is not contrary to the established land use pattern. The Applicant will be required to comply with the development standards of the RU-2-15, Multiple-Family Dwelling District of the Code of Ordinances. The proposed partial rezoning area would encompass 1 acre of the subject property which currently includes the day care center and classroom buildings, which are located on the northern portion of the site and buffered from the single-family homes to the south on Hilcrest Drive.

  - e. *The proposed change would be contrary to the Future Land Use Map and would have an adverse effect on the Comprehensive Plan.*

    Staff Finding: The existing FLUM designation of the subject property is HDR. The proposed rezoning is consistent with Future Land Use Element Policy 1.1.2.3. Further, Figure FLU-1, Standards for Future Land Use Categories, showed that RU-2-15 is an applicable zoning district for the HDR FLU category.

Rezoning Request

- Findings of Note:
  - f. *Changed or changing conditions make the passage of the proposed amendment necessary.*

    Staff Finding: The Applicant has stated that "as the needs of the community have changed" they have proposed the partial rezoning in order to support their low-income housing initiative and to accommodate the low-cost day care facility on site. Any additional uses beyond what are allowed by the existing Institutional zoning, which is a limited number, requires a rezoning. The proposed rezoning will accommodate the existing daycare use on site and will be consistent with the surrounding zoning districts and mix of residential, commercial, and institutional uses.
  - g. *The proposed change will adversely influence living conditions in the neighborhood.*

    Staff Finding: The maximum density allowed by the FLU designation is 25 units per acre. The proposed rezoning to RU-2-15 will limit the +/- 1.002-acres to a maximum of 15 dwelling units. The applicant is proposing to provide six dwelling units. In either case of six or fifteen dwelling units, the proposed change will not adversely influence living conditions in the neighborhood as the partial rezoning area is buffered from the single-family residences on Hilcrest by the existing parking lot and former church/Matthew's Hope buildings. The form of the Subject Property is not anticipated to change, in that access points and building footprint are anticipated to remain the same. The intended use of the area to be rezoned is expected to improve the living conditions of those that are unable to currently house themselves as they transition to stable housing.

Rezoning Request

- Consistency with Comprehensive Plan Policies and Objectives
  - The proposed RU-2-15 zoning designation is consistent with the allowable uses under the “High Density Residential” Future Land Use per the City of Cocoa Comprehensive Plan.
  - Objective 3.1.1: Housing Supply. Assist the private sector to create additional units and preserve existing units to satisfy the projected demand of dwelling units of various types, sizes, and costs which will be needed to house the City's anticipated population through the planning horizon.

Rezoning Request

- Consistency with Comprehensive Plan Policies and Objectives
  - Policy 3.1.1.3: The City shall continue to utilize local government partnerships with the private sector in order to improve the efficiency and expand the capacity of the housing delivery system.
  - Policy 3.1.6.2: The City shall ensure supporting infrastructure and public facilities are available and maintained to support the location of very low income, low income, and moderate income households as well as for mobile and manufactures homes.

Rezoning Request

- Consistency with Comprehensive Plan Policies and Objectives
  - Policy 3.3.2.7: The City may, through the land development regulations, encourage the development/redevelopment of housing that will integrate a variety of housing types and styles in all neighborhoods.

Allegra at Cocoa
Staff Recommendation

COCOA
FLORIDA

On December 6, 2023, the Planning and Zoning Board recommended APPROVAL to City Council of the Zoning Map Amendment consistent with Appendix A, Zoning, Article XXI, to change the Zoning Map designation of a portion of one parcel, that portion totaling +/-1.002-acres, from INST (Institutional) to RU-2-15 (Multiple Family Dwelling).

Allegra at Cocoa
Staff Recommendation

COCOA
FLORIDA

Staff recommends that the City Council Approve on First Reading the requested Zoning Map Amendment to change the Zoning Map designation of one parcel totaling +/-1.002 acres located at 825 Forrest Ave. from INST (Institutional) to RU-2-15 (Multiple Family Dwelling).

Exhibit B: 12/19/2023 Inspire Placemaking Collective Presentation

Inspire
PLACEMAKING COLLECTIVE

Windward Preserve – PUD Rezoning and Preliminary Plat Second Reading

City of Cocoa: City Council Meeting

December 19, 2023

Agenda

- Location
- Existing Conditions
- Request
- History
- Findings
- Recommendation



Inspire
PLACEMAKING COLLECTIVE

Location

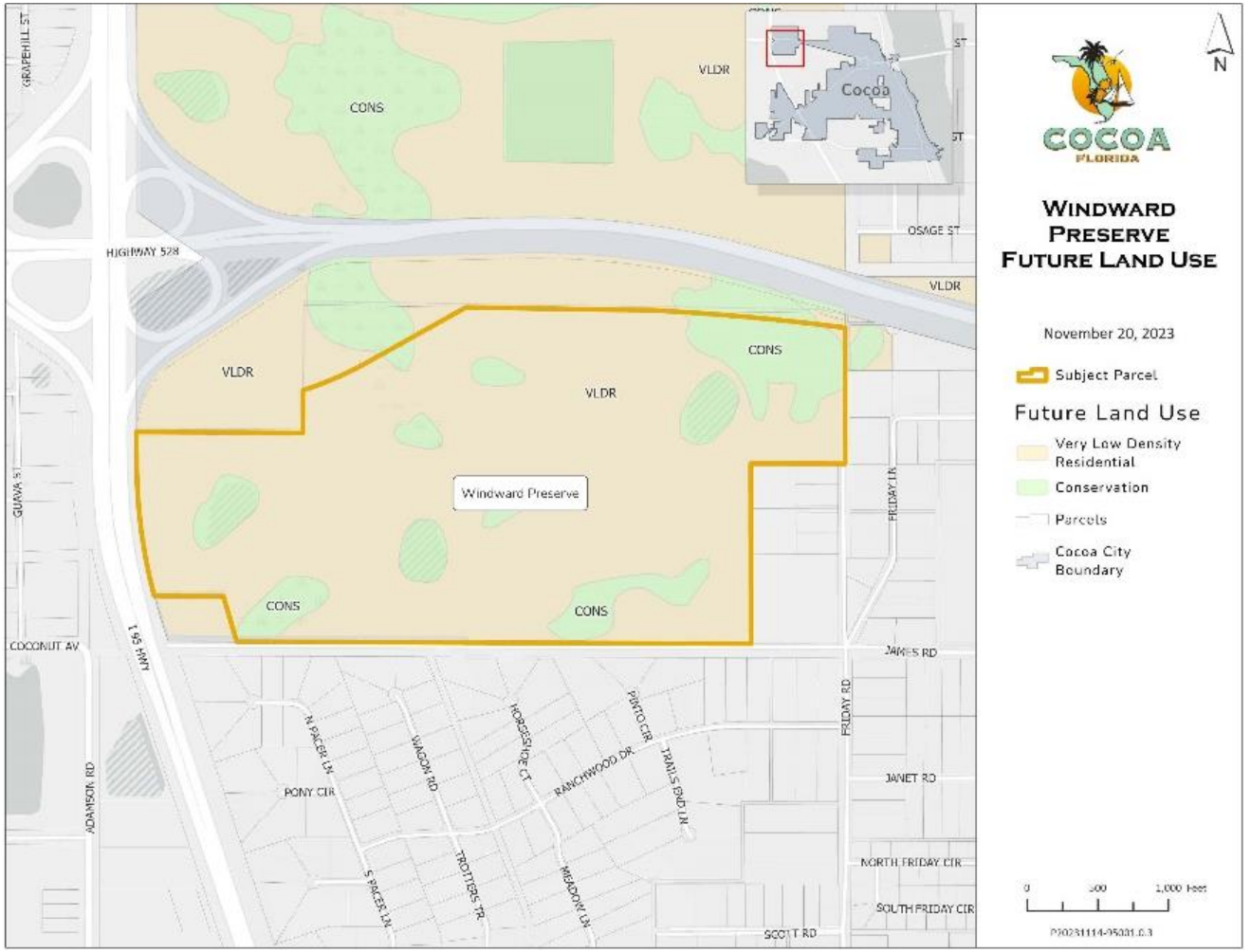
- South of State Road 528 Beachline Expressway
- East of Interstate 95
- 212.2 acres



Inspire
PLACEMAKING COLLECTIVE

Existing Conditions

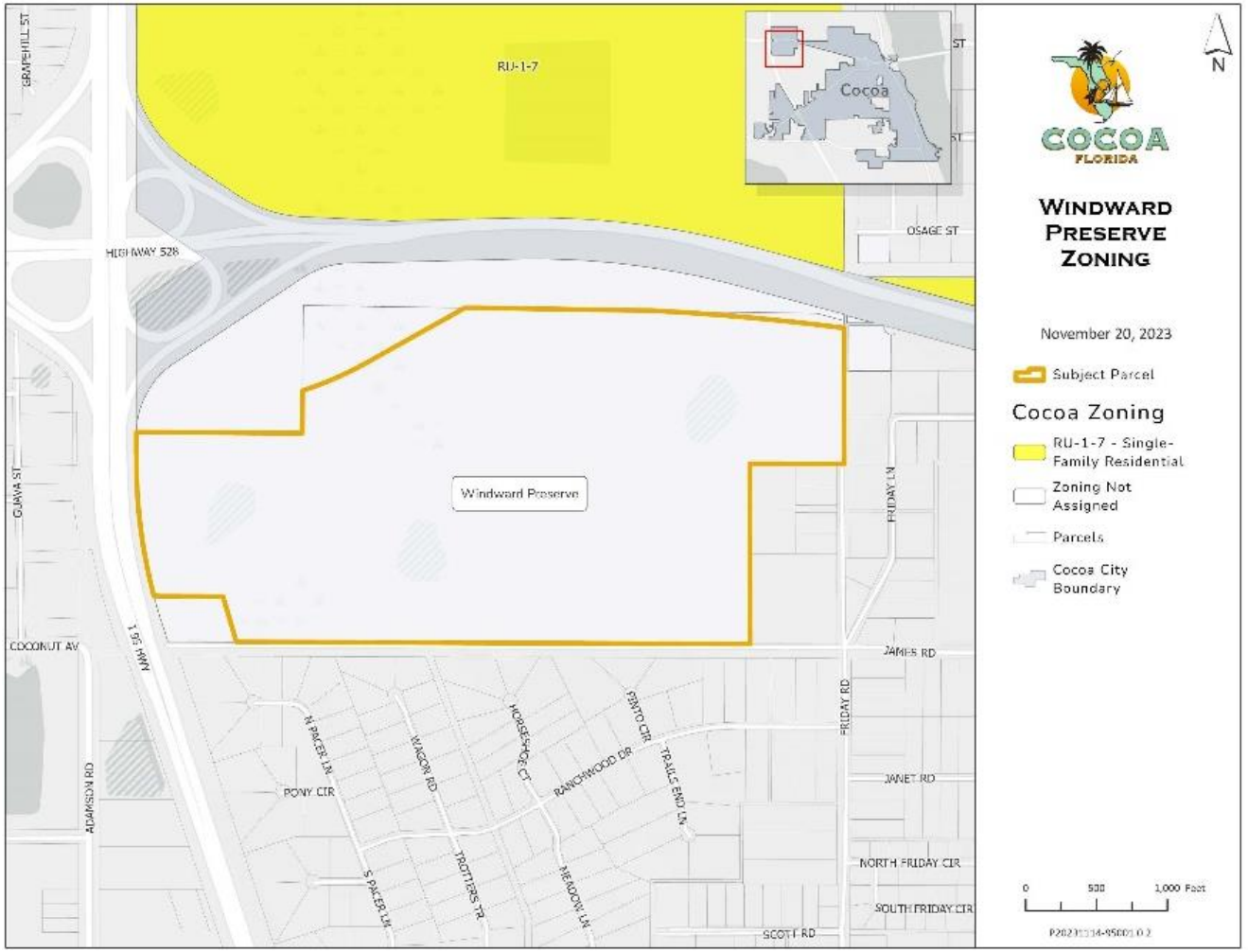
- FLUM: Very Low Density Residential / Conservation
- Allows consideration of up to 4 DU / acre



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Existing Conditions

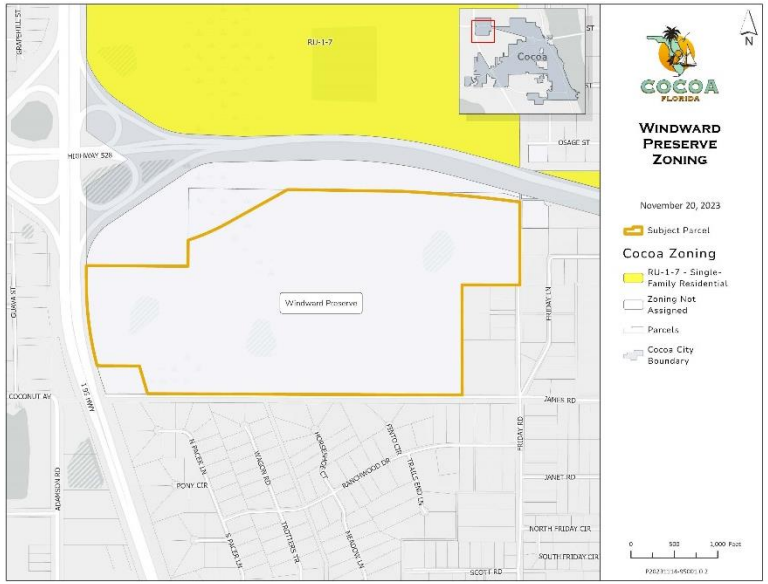
- Zoning: No City of Cocoa Zoning
- Retains historic Brevard County General Use (pre-annexation)

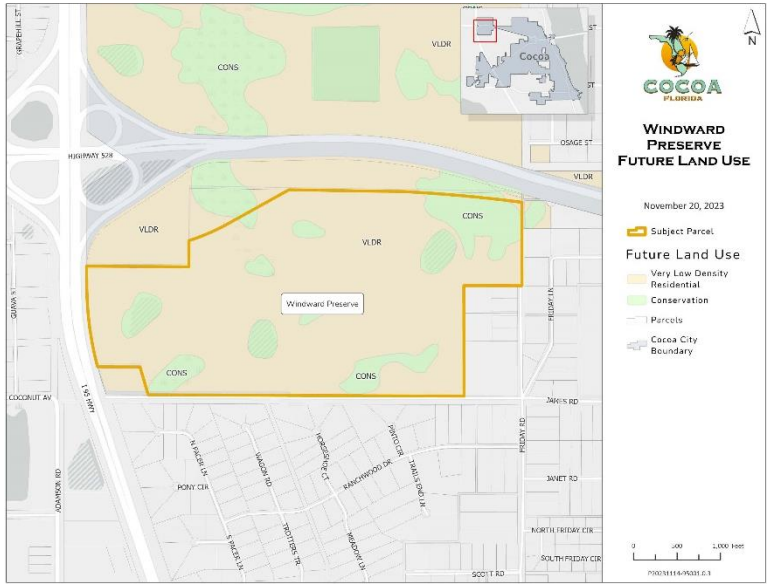


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Existing Conditions

Overview of Surrounding Area:			
	Future Land Use Designations	Zoning Districts	Land Uses
North	Very Low Density Residential / Conservation (City)	General Use (Brevard County)	Retention Ponds / Brightline Railroad Tracks
South	RES 1 (Brevard County)	RR-1 Rural Residential (Brevard County)	Single-Family Residential
East	RES 1 (Brevard County)	RR-1 Rural Residential (Brevard County)	Single-Family Residential / Vacant Land
West	RES 1:2.5 (Brevard County)	AU Agricultural Residential and GU General Use (Brevard County)	Interstate 95 / Vacant Land / Single-Family Residential (West of I-95)

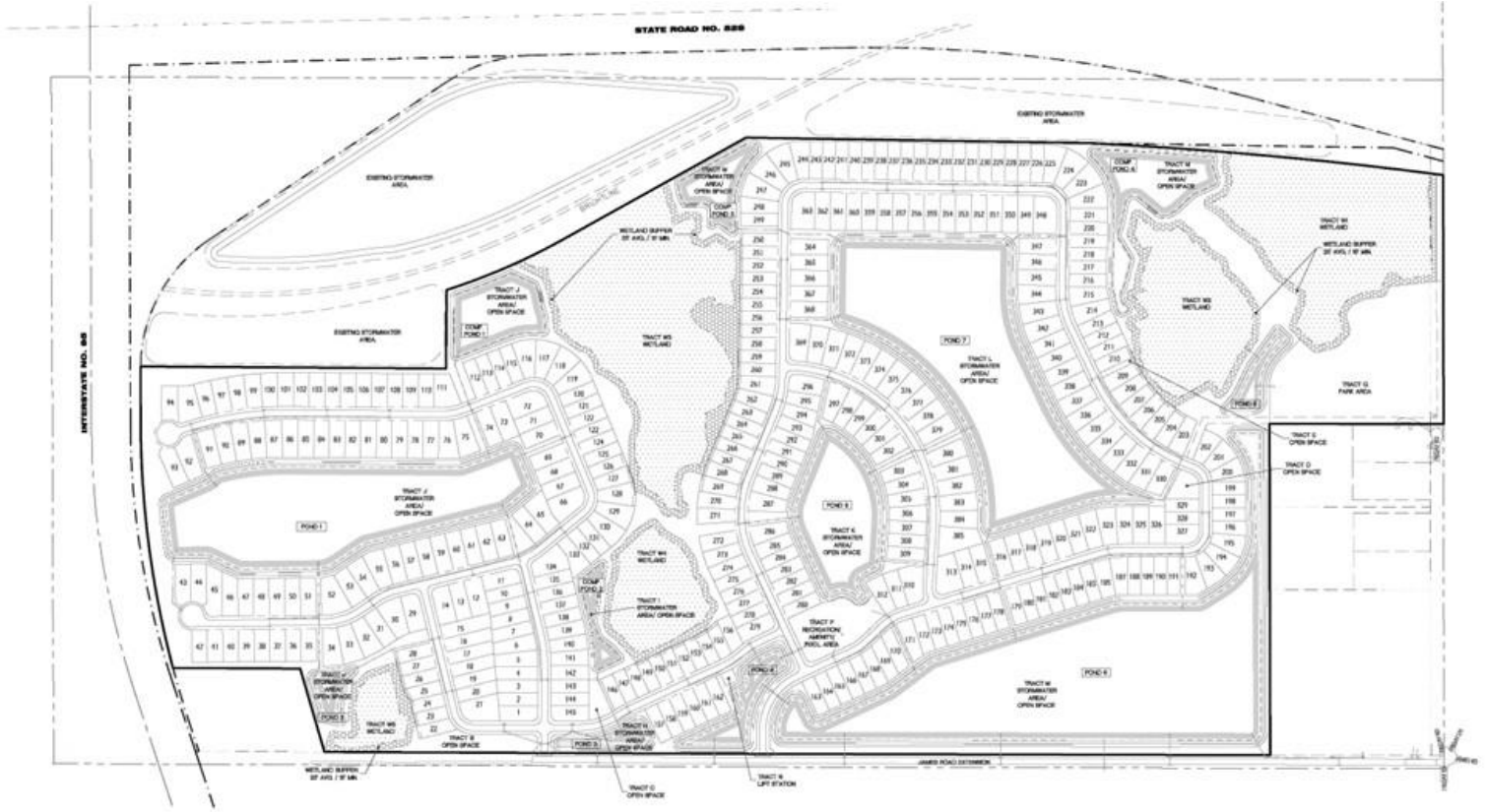




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Request

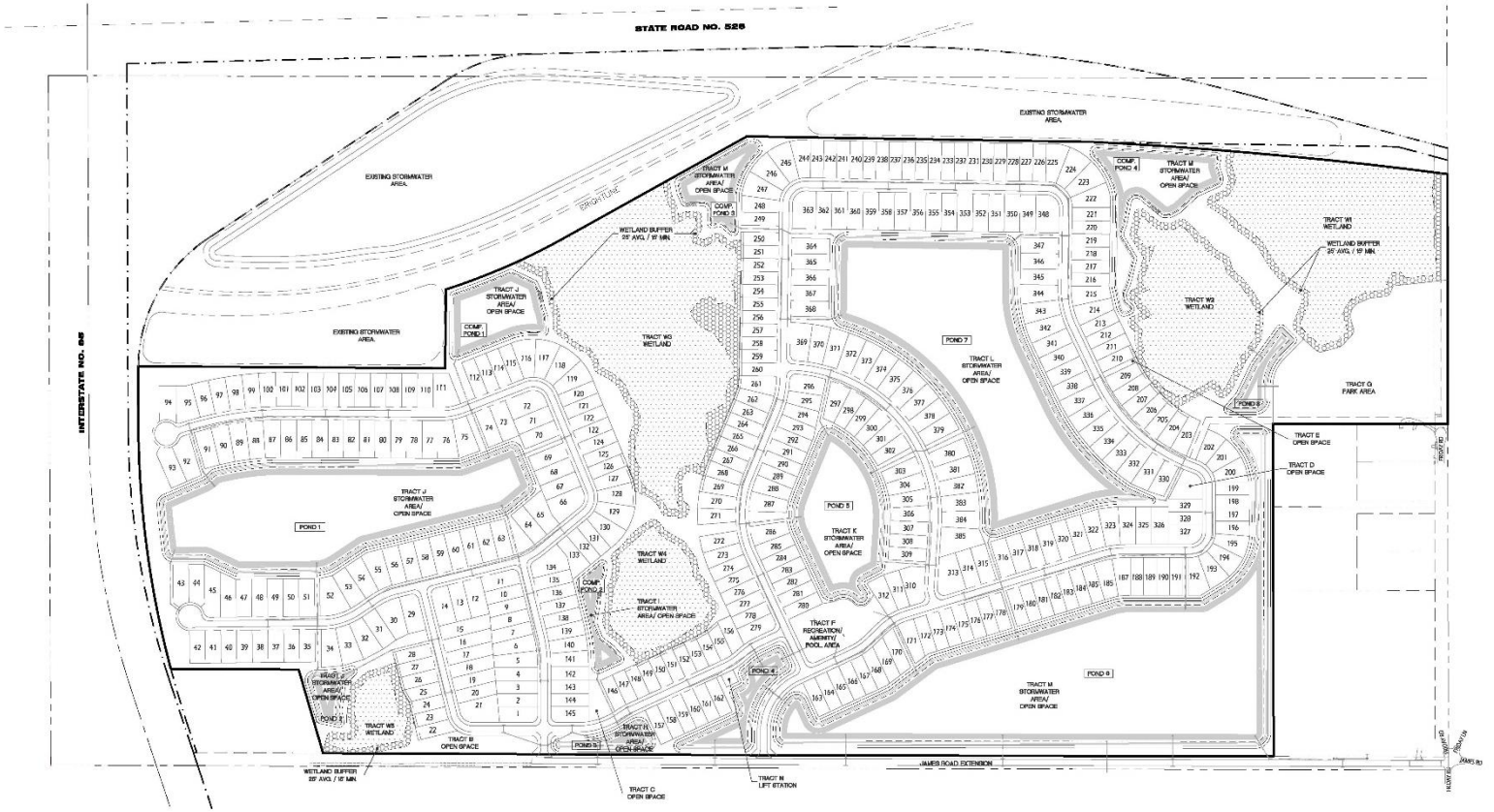
- Rezone from Brevard County General Use to City of Cocoa Planned Unit Development
- Large Scale Site Plan
- Preliminary Subdivision



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Request

- Development Program consisting of 385 single family units with amenities split into two phases:
  - Phase 1: 185 homes, recreation amenity, pool, dog park and portion of the trail
  - Phase 2: 200 homes, park and remainder of the trail system



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History

- **2004** - Project originally annexed into the City of Cocoa, Ordinance 31-2004
- **2004 -** Brevard County filed a Writ of Certiorari to challenge the annexation
- **2005** - Cocoa and the Hagen-Nicolson Properties, LLC entered into a Preceding Development Agreement which would allow the annexation in exchange for development rights and City services
- **2006** - Agreement was amended to change development entity, Barrera Shores, LLC
- **2008 -** The County and City entered into a Stipulated Settlement Agreement which contained provisions related to density, buffering, access and traffic calming
- **2022** - The City and Beachline Partners, LLC entered into Settlement Implementation Agreement that detailed more specific requirements for this development

History

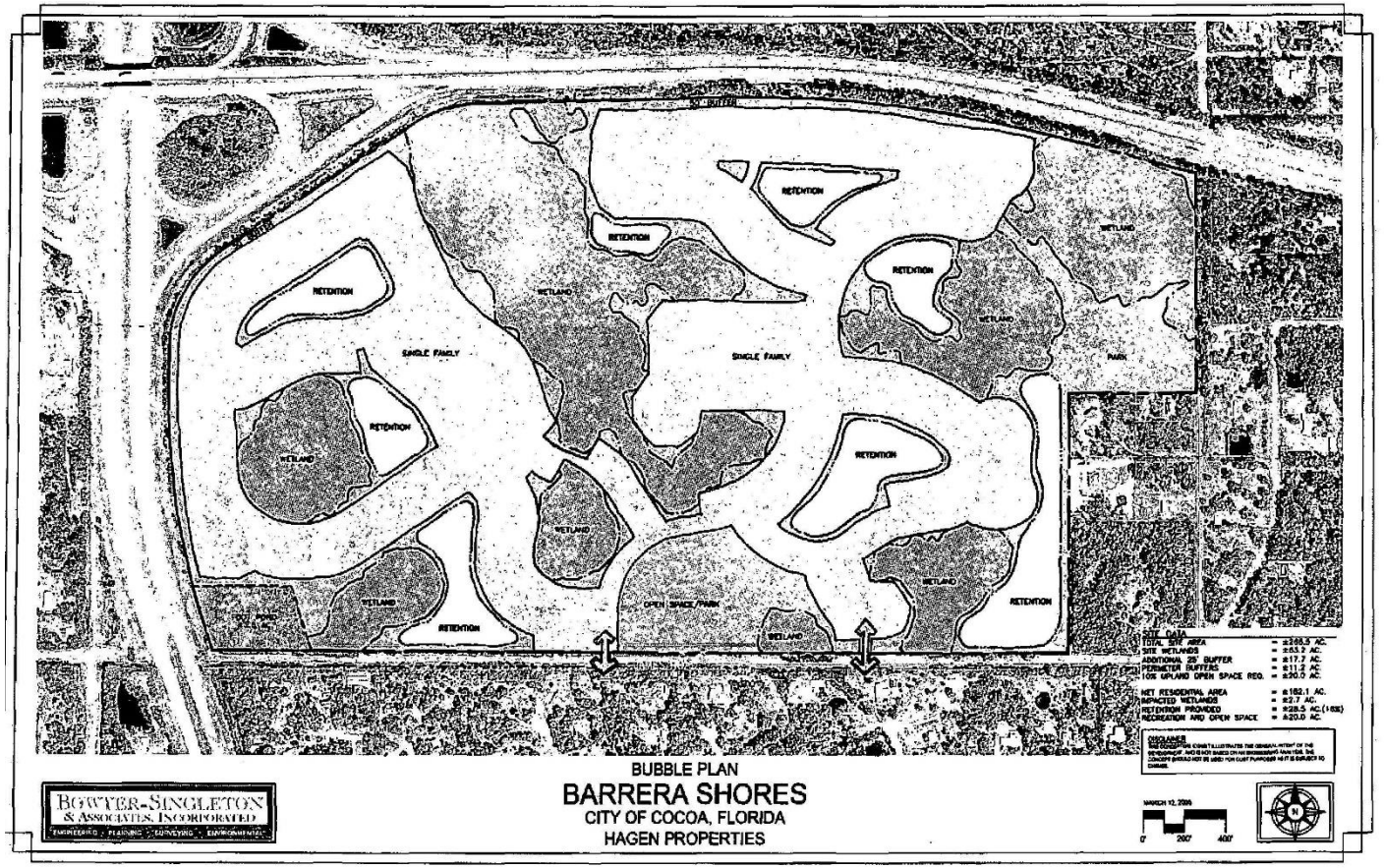
2005 & 2006 Preceding Development Agreement stated:

- Developer agreed to annex into the City if the City provides necessary infrastructure
- City agreed to provide police protection, fire protection, solid waste, water and wastewater services
- Subject's Future Land Use designation will be consistent with low and medium density residential
- Rezoning to be consistent with the RU-1-7 or PUD Zoning district

History

2008 Stipulated Settlement Agreement:

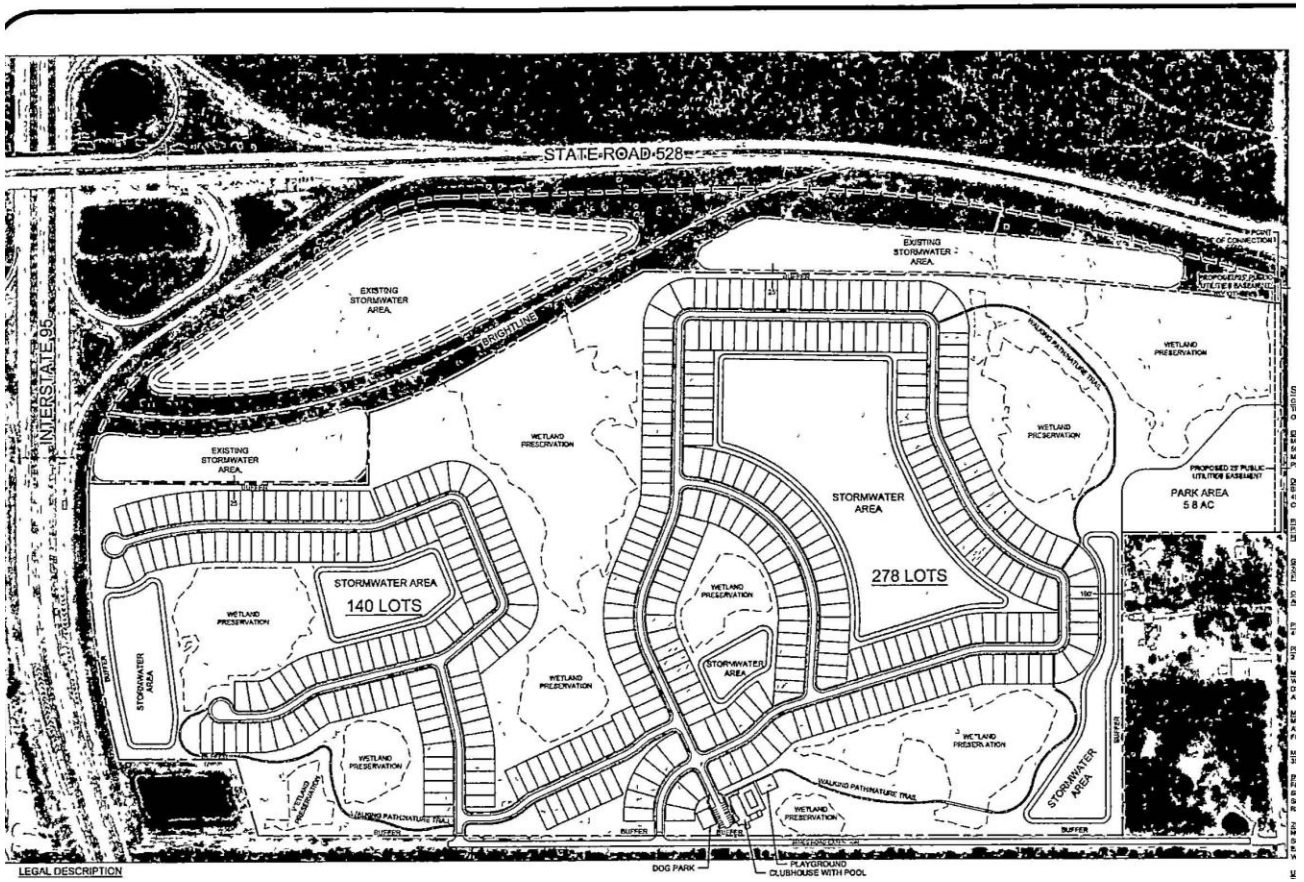
- Gross density to be approximately 2.3 dwelling units per acre
- Maximum of 600 dwelling units
- Minimum home size of 1,500 square feet (under heat / air)
- Developer to pay for traffic calming devices along James Road



History

2022 Settlement Implementation Agreement:

- Development shall be a maximum of three phases consisting of 418 total units
- Provision of private recreation space consisting of walking path / nature trail, 5.8-acre park, dog park, playground and clubhouse with pool
  - Specific requirements were provided for the clubhouse, dog park, park area
- Streetscape requirements
- Entrance feature requirements

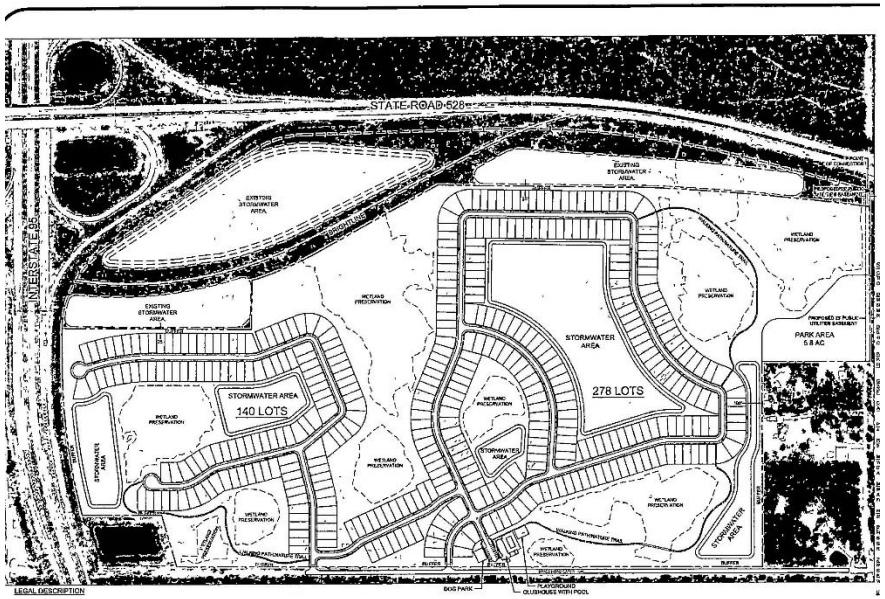


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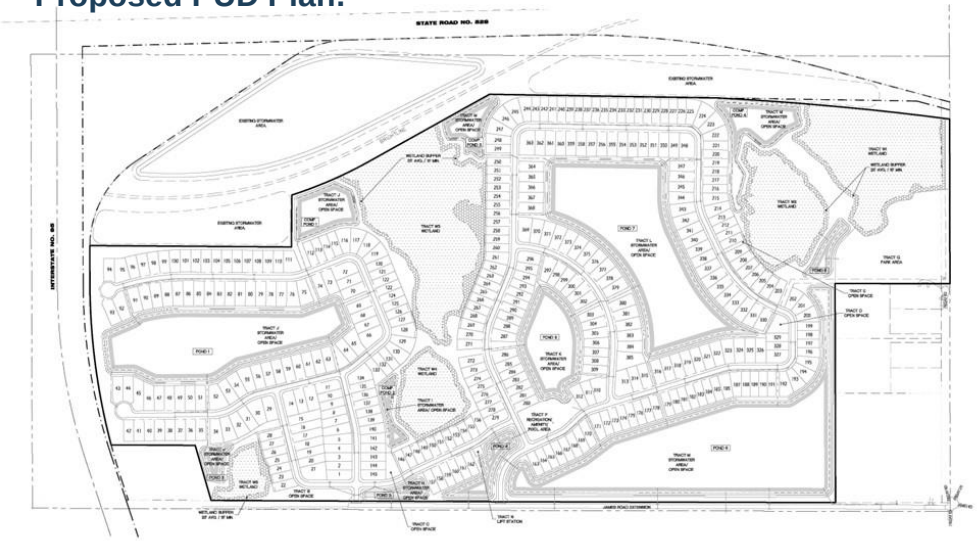
Findings

- Layout is consistent with the layout previously approved by the City in the 2022 Settlement Implementation Agreement
- Unit count (385) is less than approved in the Settlement Agreement (600) and the Settlement Implementation Agreement (418)
- Amenities consistent with those required by prior agreements

2022 Settlement Implementation Agreement Plan:



Proposed PUD Plan:



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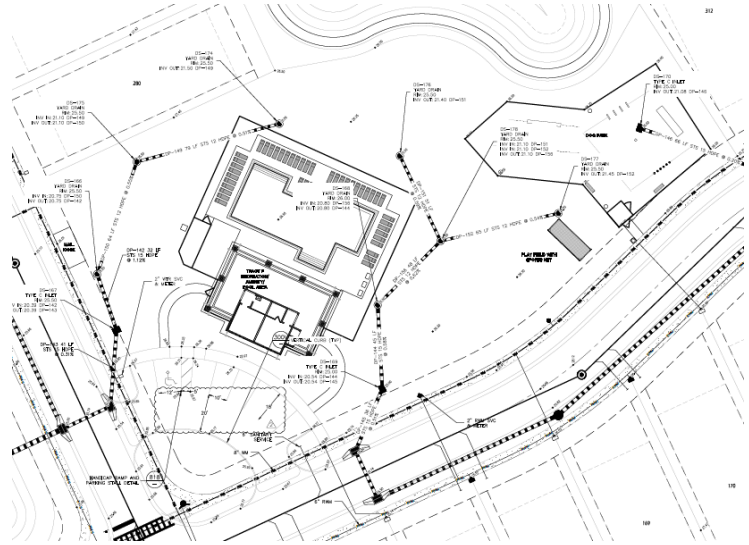
Findings

- Amenities consistent with prior agreements:
  - Clubhouse / pool
  - Park / tot lot
  - Dog park
  - Trail network
  - Stone, brick paver, or stamped concrete driveways
  - Underground utilities
  - Energy efficient materials

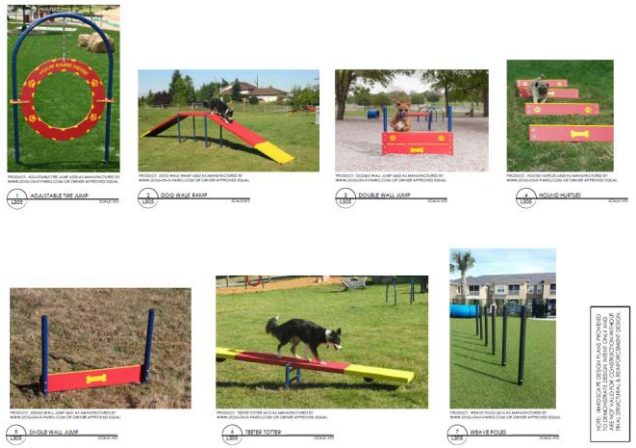
Clubhouse:



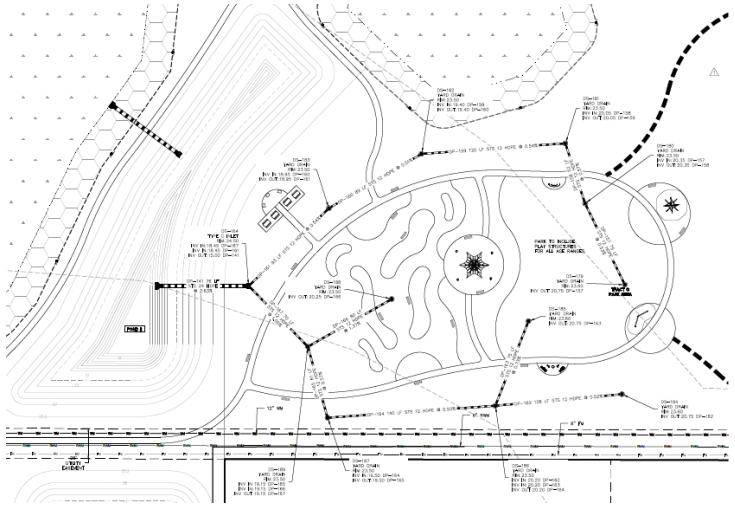
Pool / Clubhouse Amenity and Dog Park:



Dog Park Details:



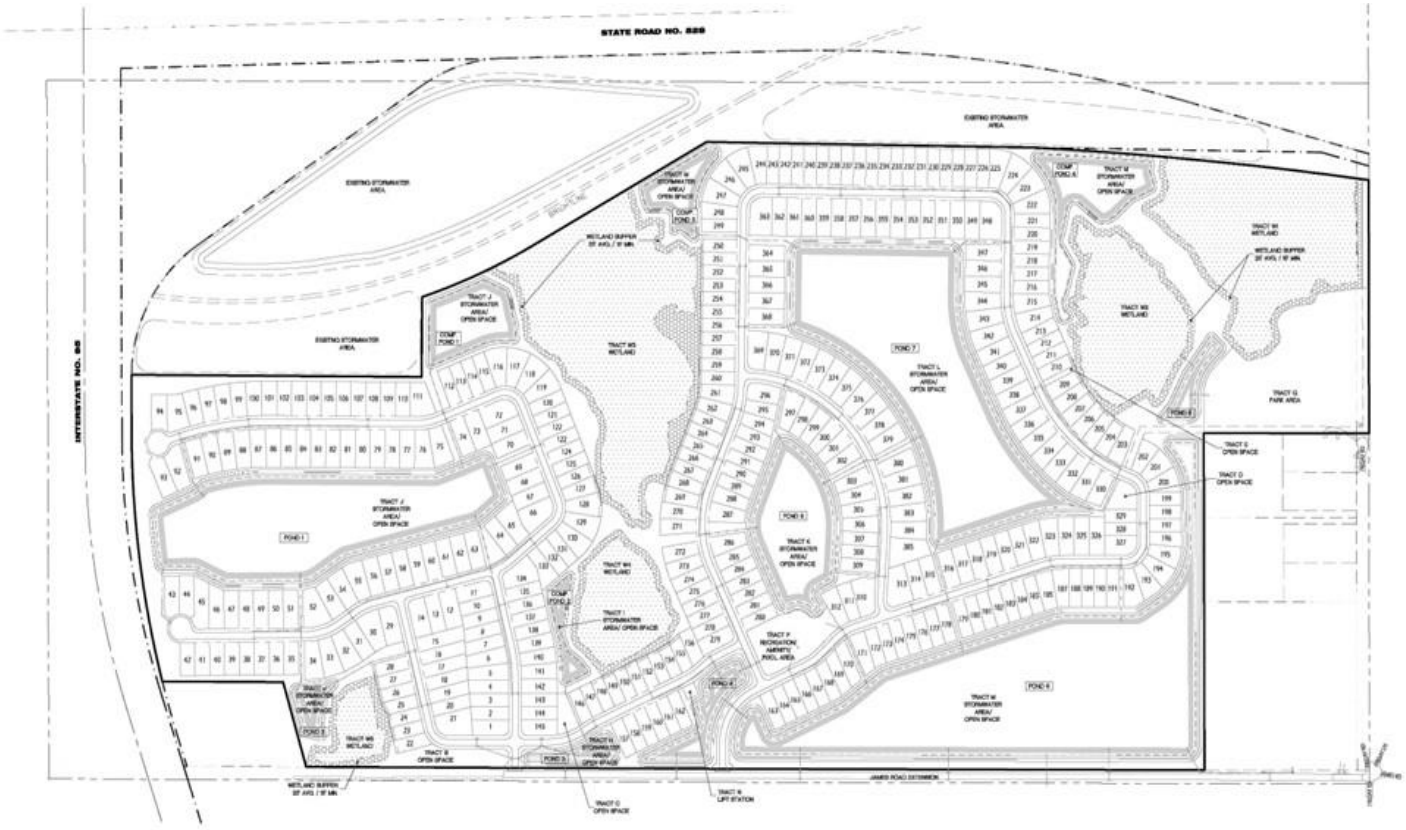
Park / Tot Lot:



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Finding #1

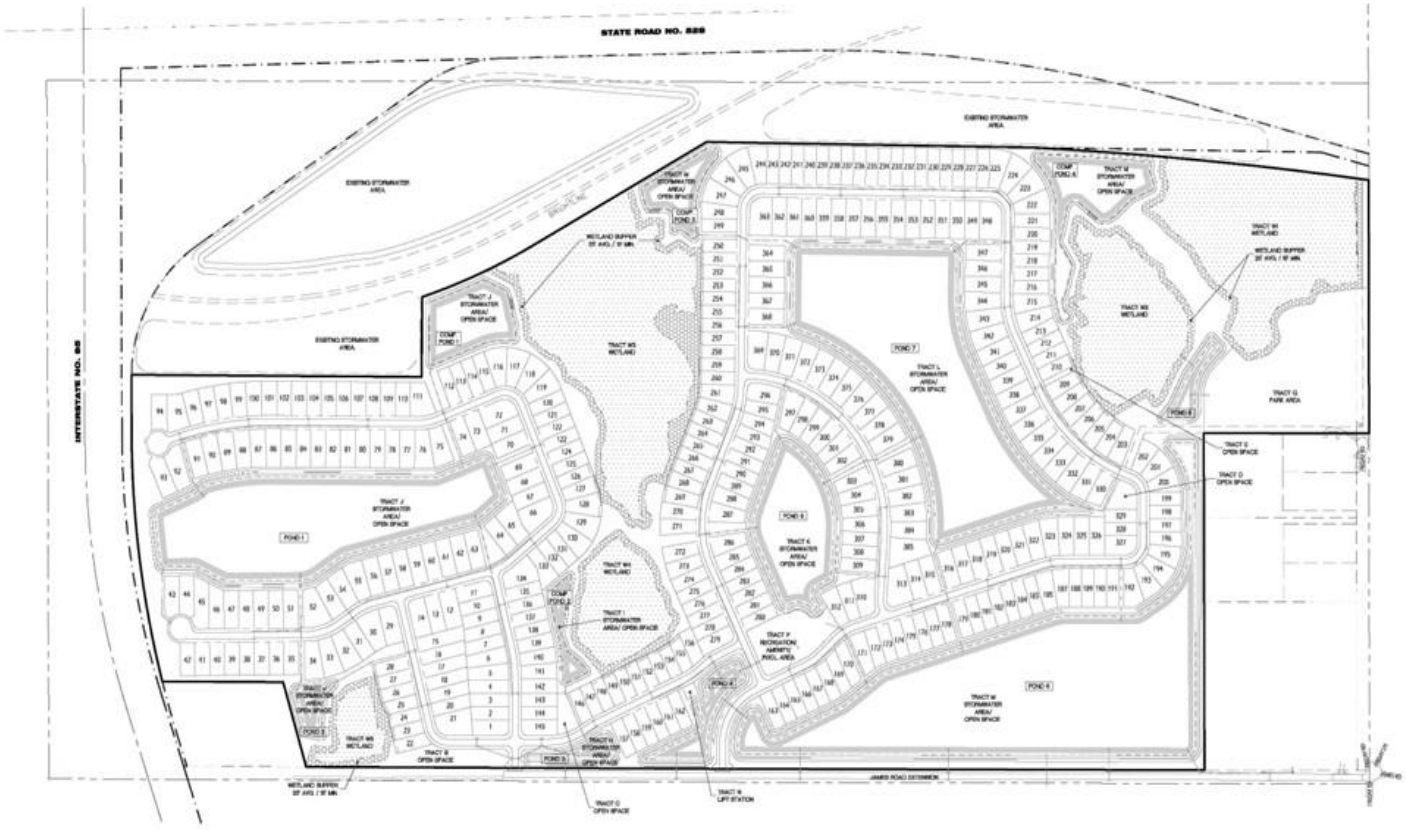
- Degree of departure of proposed PUD from surrounding areas in terms of character or density:
  - Proposed density is consistent with the underlying FLUM designation and a reduction from density contemplated in prior agreements. The proposed gross density is 1.82 DU/acre, which is less than the 2.3 DU/acre allowed by the Settlement Agreement.
  - Designed site with ponds, preserved wetlands and open spaces on the south and east, which provides a buffer to existing residential



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Finding #2

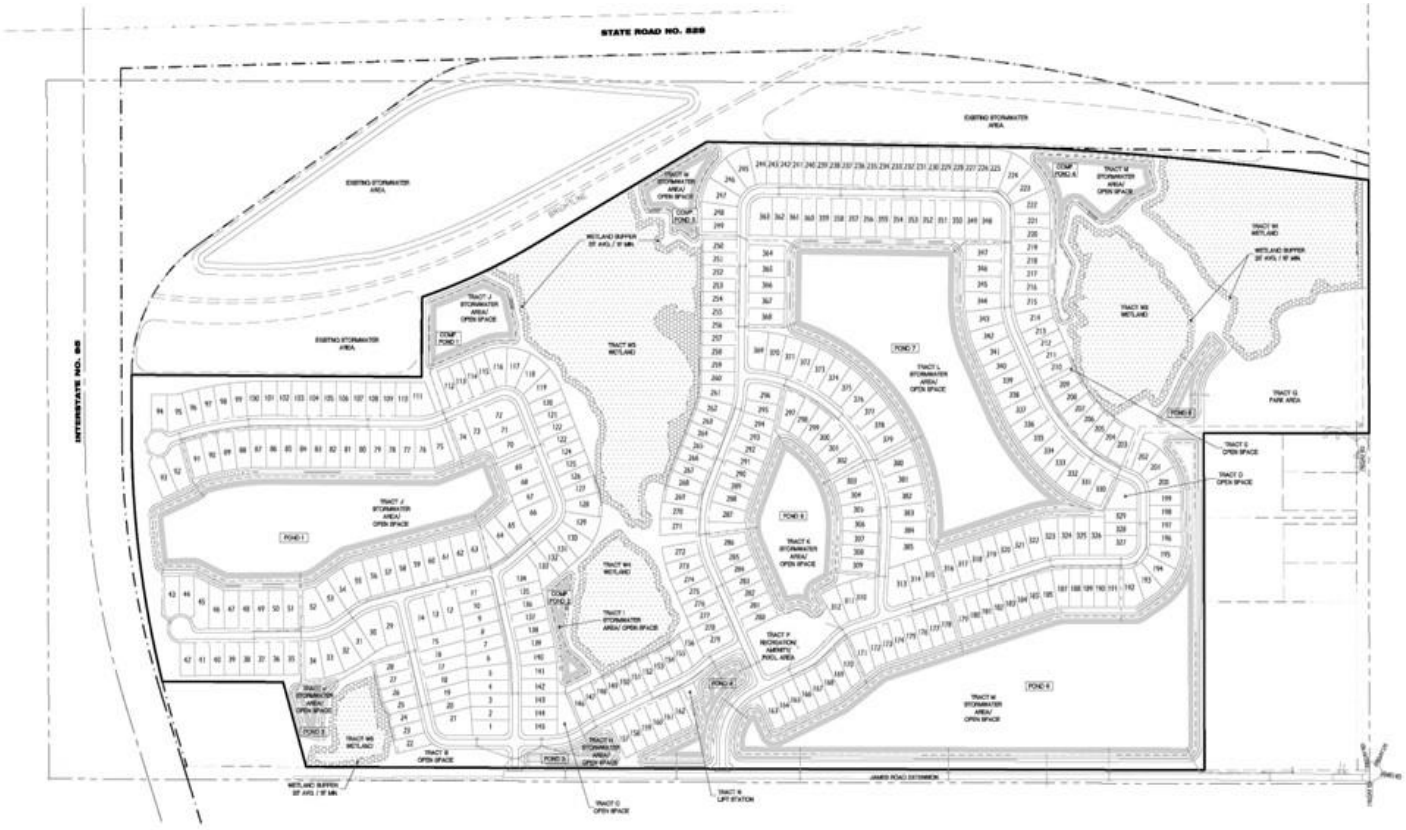
- Compatibility within the PUD and relationship to surrounding neighborhoods:
  - Unit cap
  - Minimum home sizes
  - Location of open spaces, ponds, and preservation of wetlands on the south and east
  - Min. 100’ separation from rear lot lines to the property to the east
  - Prohibition on access from Friday Road
  - Traffic calming devices on James Road



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Finding #3

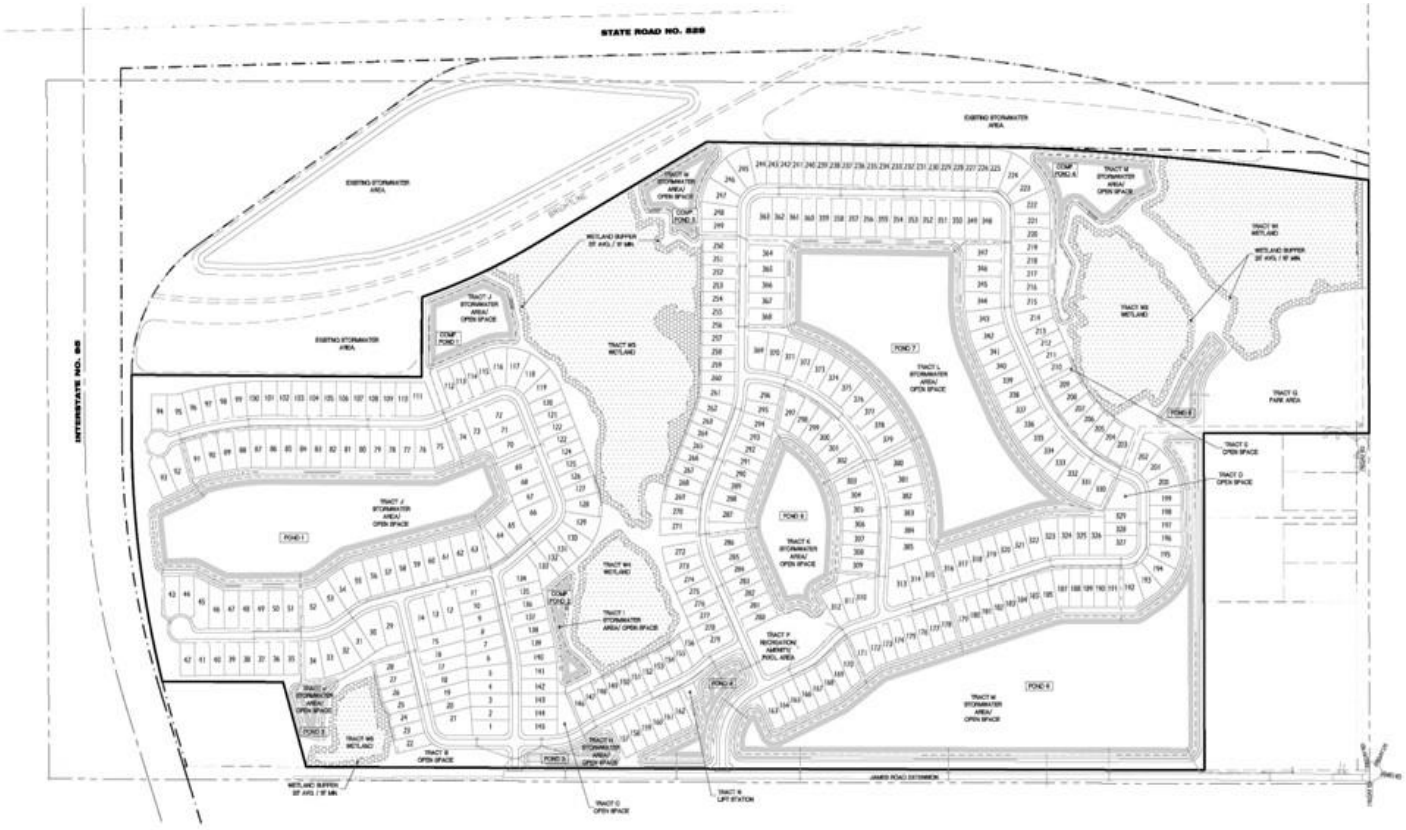
- Prevention of erosion and degrading of surrounding area:
  - Signed and sealed drawings from licensed professionals to ensure that all applicable local, regional, state, and federal laws in regarding to land erosion are met.



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Finding #4

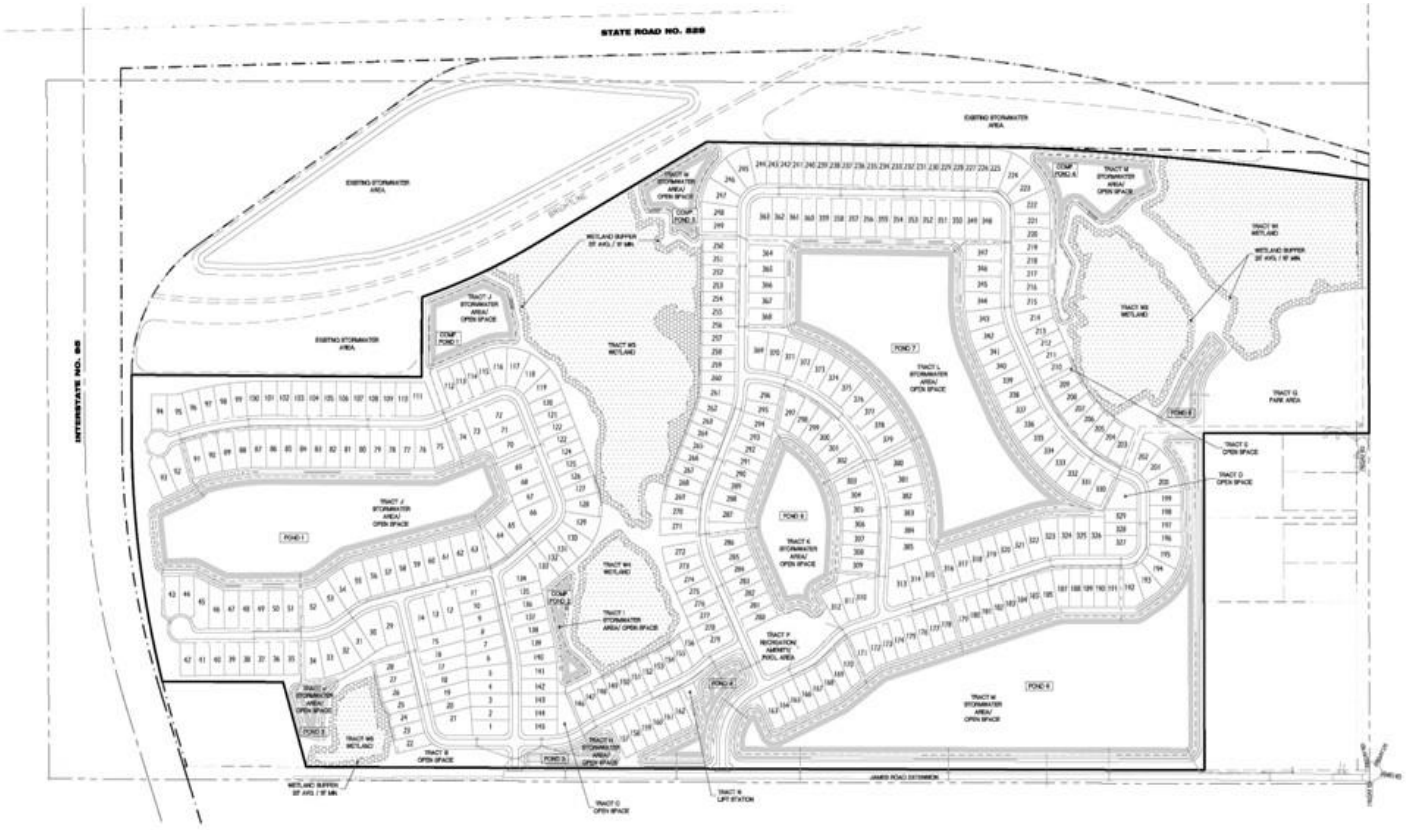
- Provision of future public education and recreational facilities, transportation, water supply, sewage disposal, surface drainage, flood control and soil conservation:
  - Concurrency analysis in staff report
  - Capacity available in Brevard Public Schools
  - Capacity available for water and wastewater
  - Drainage consistent with Cocoa and SJRWMD requirements
  - Recreation amenities consistent with agreements and in excess of LOS
  - Transportation capacity available



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Finding #5

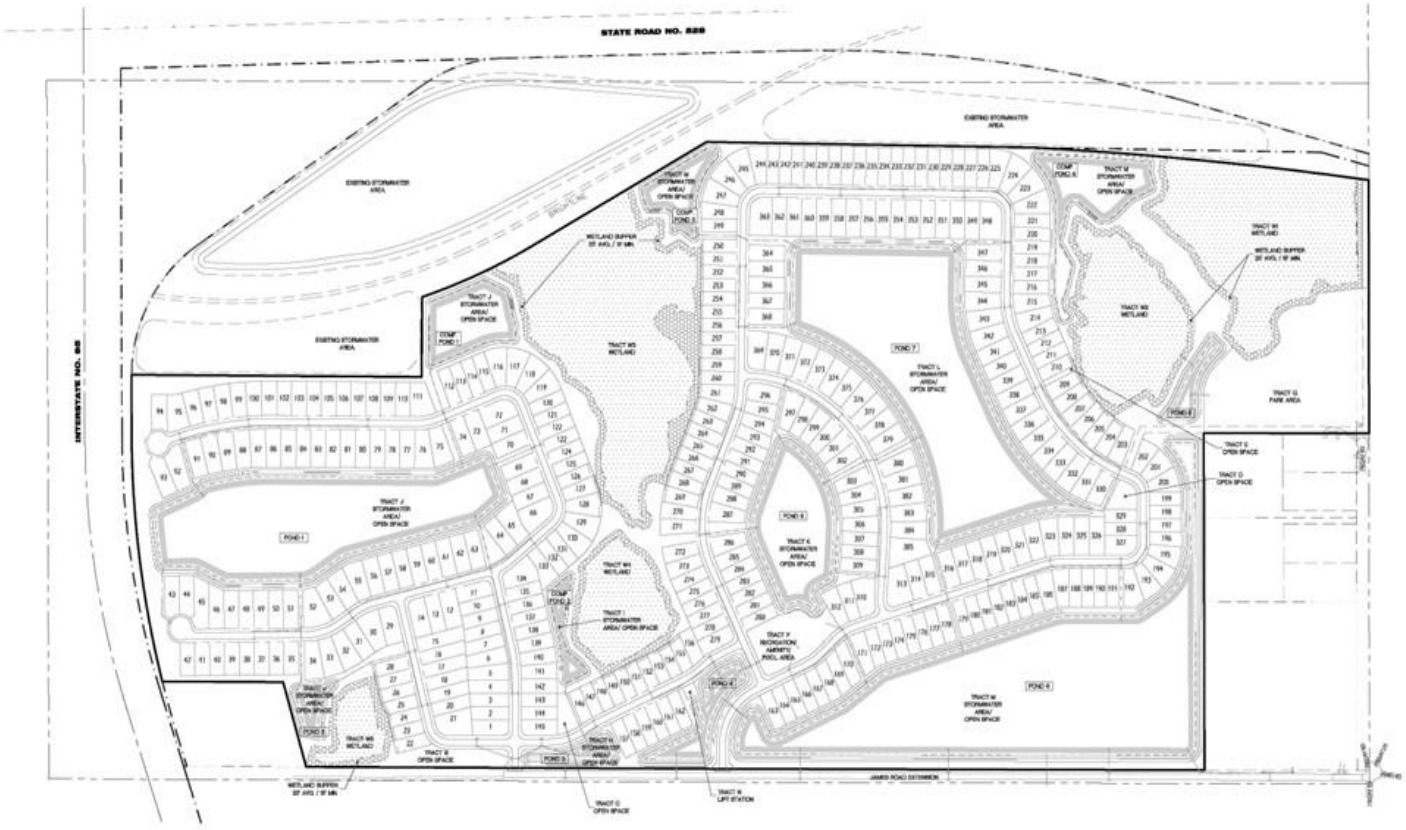
- The nature, intent and compatibility of common space including maintenance:
  - Amenities consistent with prior agreements and in excess of LOS standards
  - Maintenance will be the responsibility of either a CDD or the HOA, as applicable



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Finding #6

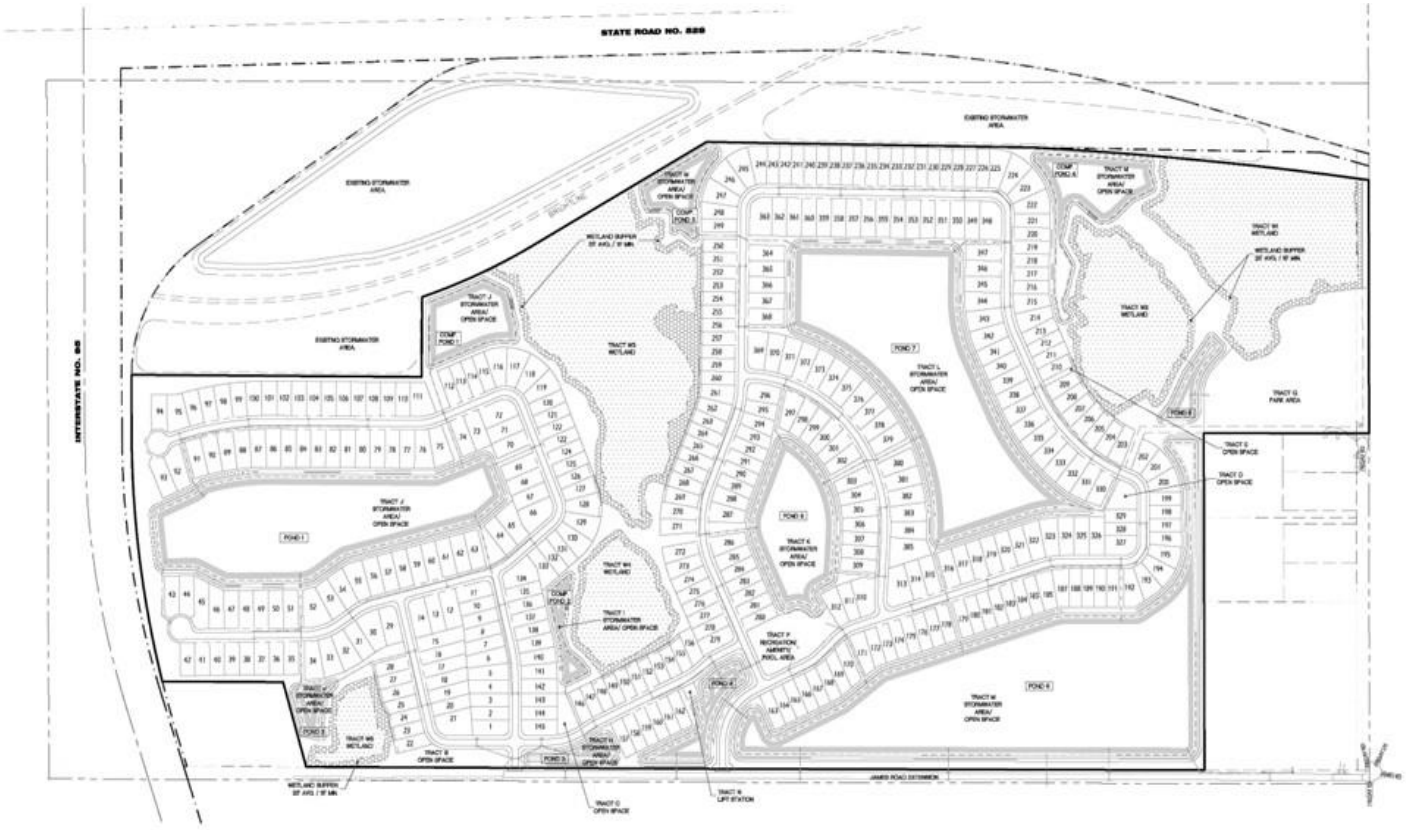
- The feasibility and compatibility of the specified stages contained in the PDP to exist as an independent development:
  - Two phases proposed, both with sufficient infrastructure to support the proposed residential program
  - Main amenity included in first phase
  - Condition #2 to require amenity completion prior to 150th building permit in each phase



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Finding #7

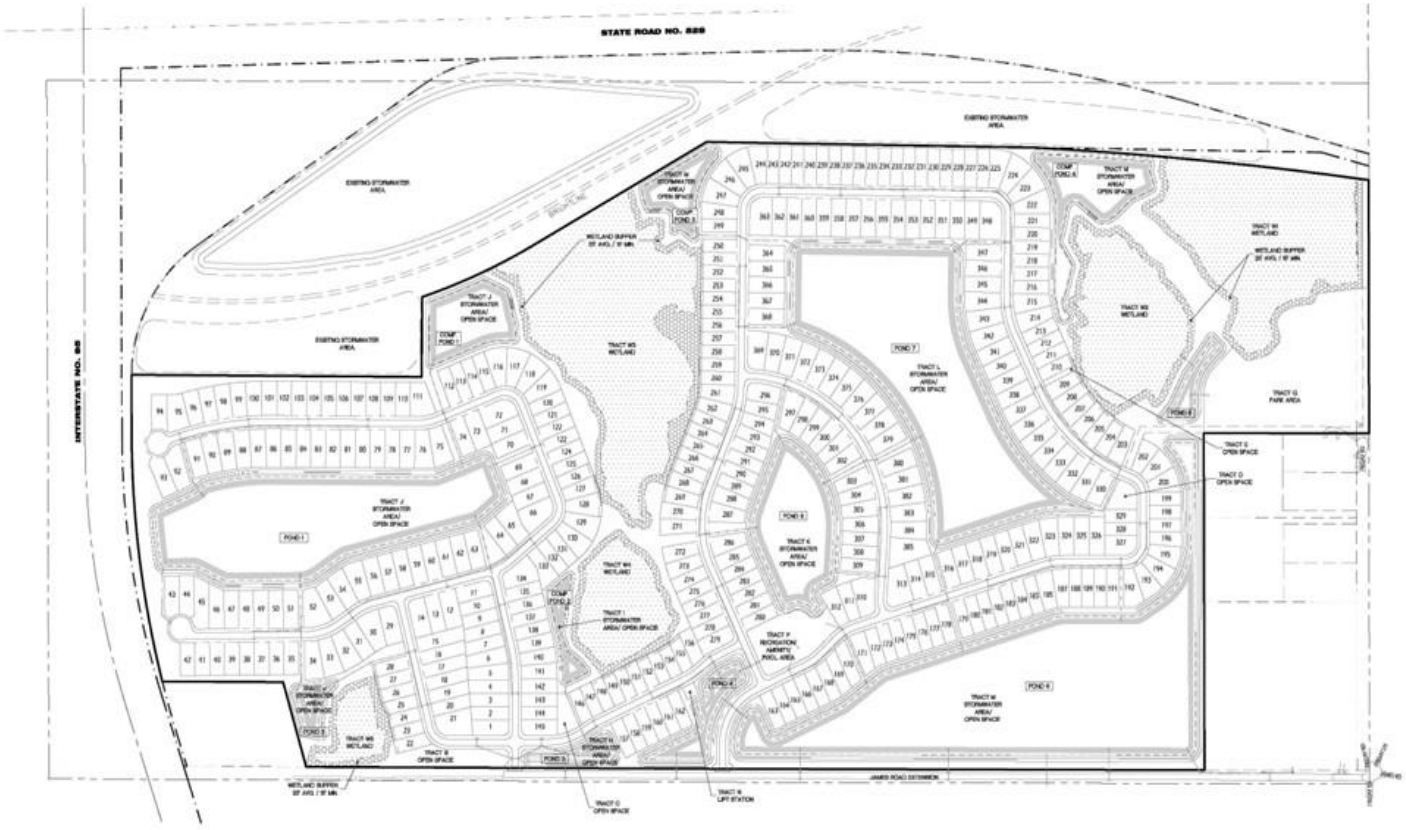
- Availability and adequacy of primary streets and thoroughfares to support traffic to be generated by the PUD:
  - Capacity available on surrounding road network
  - SR 524 expected to exceed capacity at build-out, however it is exempt from concurrency and design is programmed in the 2024/2025 FDOT work program
  - James Road will be owned and maintained by Brevard County
  - James Road will be improved at applicant's expense with traffic calming measures



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Finding #8

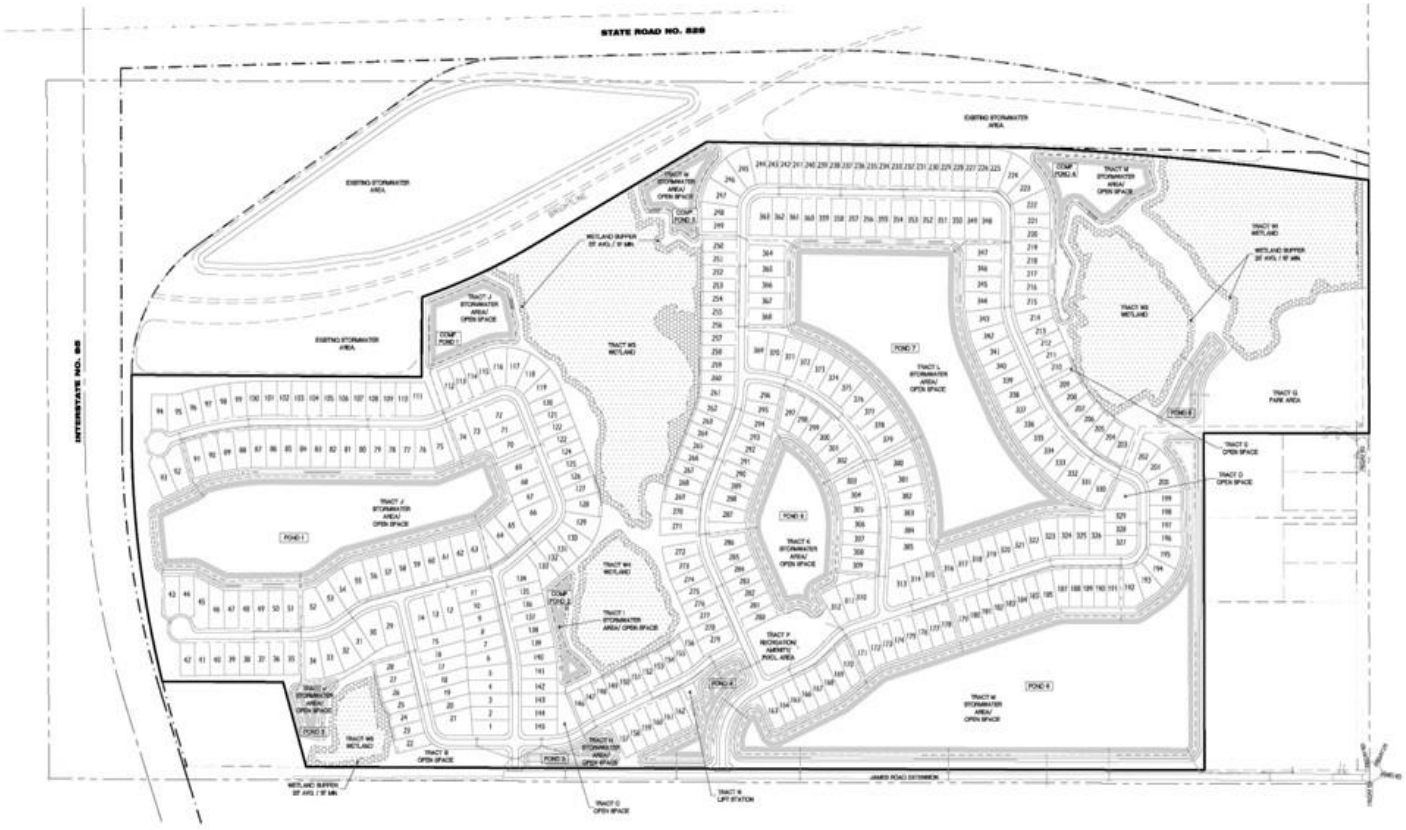
- The availability and adequacy of water and sewer service to support the PUD.
  - Capacity for water and sewer is available



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Finding #9

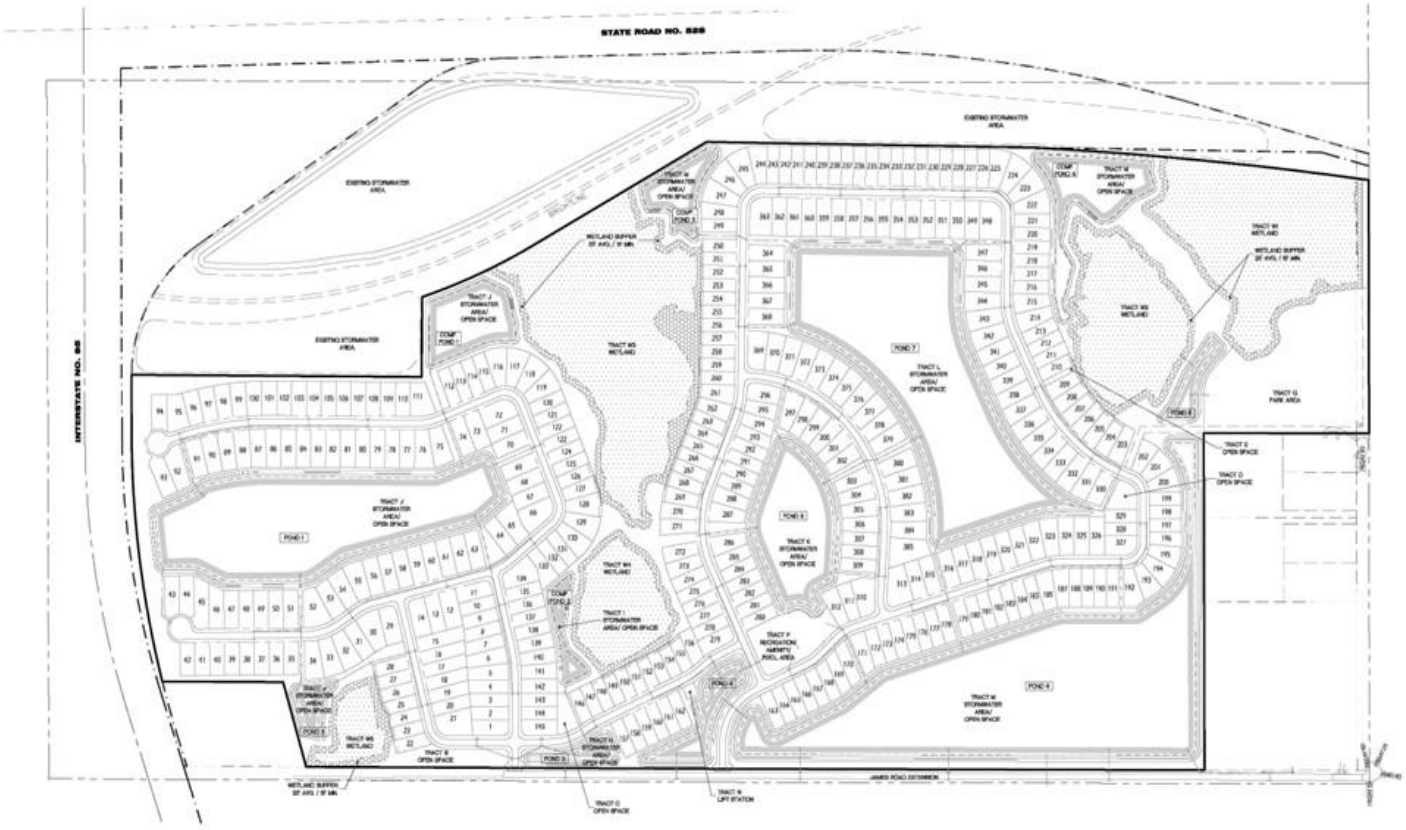
- The benefits within the proposed development and to the general public to justify the requested departure from standard land use requirements inherent to a PUD:
  - Preservation of 34+ acres of wetlands
  - Amenities in excess of code
  - Increase in ad valorum tax revenue, fees, and water/sewer revenue



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Finding #10

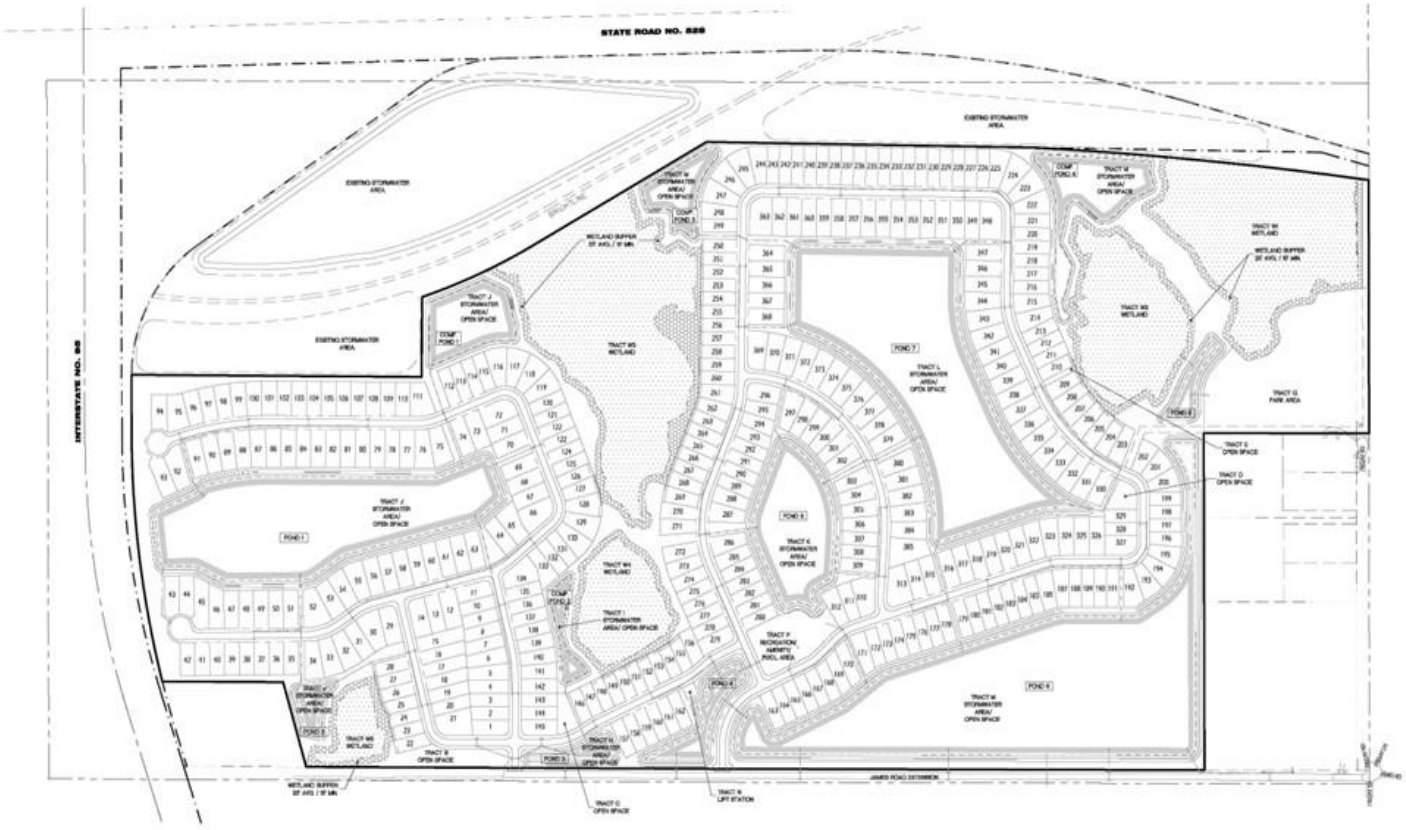
- The conformity and compatibility of the PUD with any adopted development plan of the City
- As conditioned:
  - Consistent with Comprehensive Plan
  - As conditioned, consistent with prior development agreements
  - Consistent with PUD code requirements



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Finding #11

- Conformity and compatibility of the proposed common open space, primary residential and nonresidential uses in the PUD:
  - Trail system
  - Amenity center
  - Dog park
  - Park / tot lot
  - Preservation of wetlands on south and east
  - Location of ponds



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Recommendation

Staff is recommending approval of the PUD rezoning, large scale site plan and preliminary subdivision, subject to the following conditions:

1. The project shall comply with the Planned Unit Development Plans for Windward Preserve.

2. The provided Development Schedule shall be binding upon the development of Windward Preserve. Amenities proposed for Phase One shall be completed prior to issuance of the 150th Certificate of Occupancy for Phase One. Amenities proposed for Phase Two shall be completed prior to the issuance of the 150th Certificate of Occupancy for Phase Two.

3. The Applicant shall satisfy all remaining review comments contained in Appendix A and B.

4. The clubhouse facility shall be an enclosed structure under heat and air.

5. Residential driveways shall be constructed of stone or brick pavers, or stamped and stained concrete.

Recommendation

Conditions (continued)

6. All utilities constructed on the property including, but not limited to, electric, water, sewer, reclaimed water, cable, phone, fiber optics, natural gas, and other similar kinds of utilities to service the property constructed underground unless otherwise necessary to be above ground and approved by the City.

7. Each lot and all common landscaped areas shall be equipped with in-ground reclaimed water irrigation systems.

8. The project shall incorporate the use of energy efficient lighting systems, insulation, ENERGY STAR rated windows, low-flow water fixtures, modern heat pumps, energy efficient HVAC systems, and the ability for roof top solar panels.

9. The applicant shall coordinate with Brevard County and surrounding property owners to determine the applicable traffic calming devices for James Road and shall construct the traffic calming devices as approved by Brevard County. All traffic calming devices along James Road shall be constructed and completed following land clearing of the property but prior to any further construction or site work being completed.

10. Single-family living area shall be a minimum of 1,500 square feet, with an average of 1,800 square feet, and a minimum building footprint of 2,400 square feet.

Recommendation

Conditions (continued)

11. The same architectural elevation shall not be built on a lot that is adjacent to or directly across the street from, or diagonal to the lot.

12. The developer shall comply with tree protection and preservation requirements found within Sec. 22 of the City of Cocoa Code, and shall be permitted to further supplement the Final Development Plan with revisions to the landscaping plans, a tree preservation survey, and request for additional preservation or other credits in compliance with the Code prior to land clearing commencement.

13. The developer shall comply and address all comments by the City Surveyor prior to submittal of any application for final plat approval.

14. If a Community Development District is formed for this community, the applicant shall update and provide notice to the City regarding ownership and maintenance obligations for the common areas and infrastructure within the community.

15. The Applicant shall be required to produce approvals from St. John's River Water Management District permitting the proposed wetland mitigation plans such that the boundaries of the Conservation Area may be adjusted pursuant to Comprehensive Plan Policy 1.1.2.13.

Recommendation

Conditions (continued)

16. The Developer shall ensure adequate access to the Project exists via the James Road extension west of the intersection with Friday Road. Brevard County has indicated that it does not intend to maintain the James Road extension. Accordingly, PUD approval shall be contingent upon the County transferring jurisdiction of the James Road right-of-way to the City of Cocoa via Interlocal Agreement. Further, if the City of Cocoa accepts jurisdiction of the right-of-way via the Interlocal Agreement, the Community Development District that is anticipated to be formed shall be required to enter into a separate Interlocal Agreement with the City of Cocoa, in a form acceptable to the City Attorney, that requires the Community Development District to permit, construct, and maintain in perpetuity the James Road extension improvements in accordance with terms and conditions required by the City of Cocoa. Further, the Developer shall make all necessary adjustments to the Final Development Plan to ensure that the James Road extension right-of-way and utility improvements are located solely within the James Road right-of-way transferred to the City of Cocoa or on the PUD property.

Exhibit C: 12/19/2023 Windward Preserve

WINDWARD PRESERVE

TaylorMorrison

WINDWARD PRESERVE

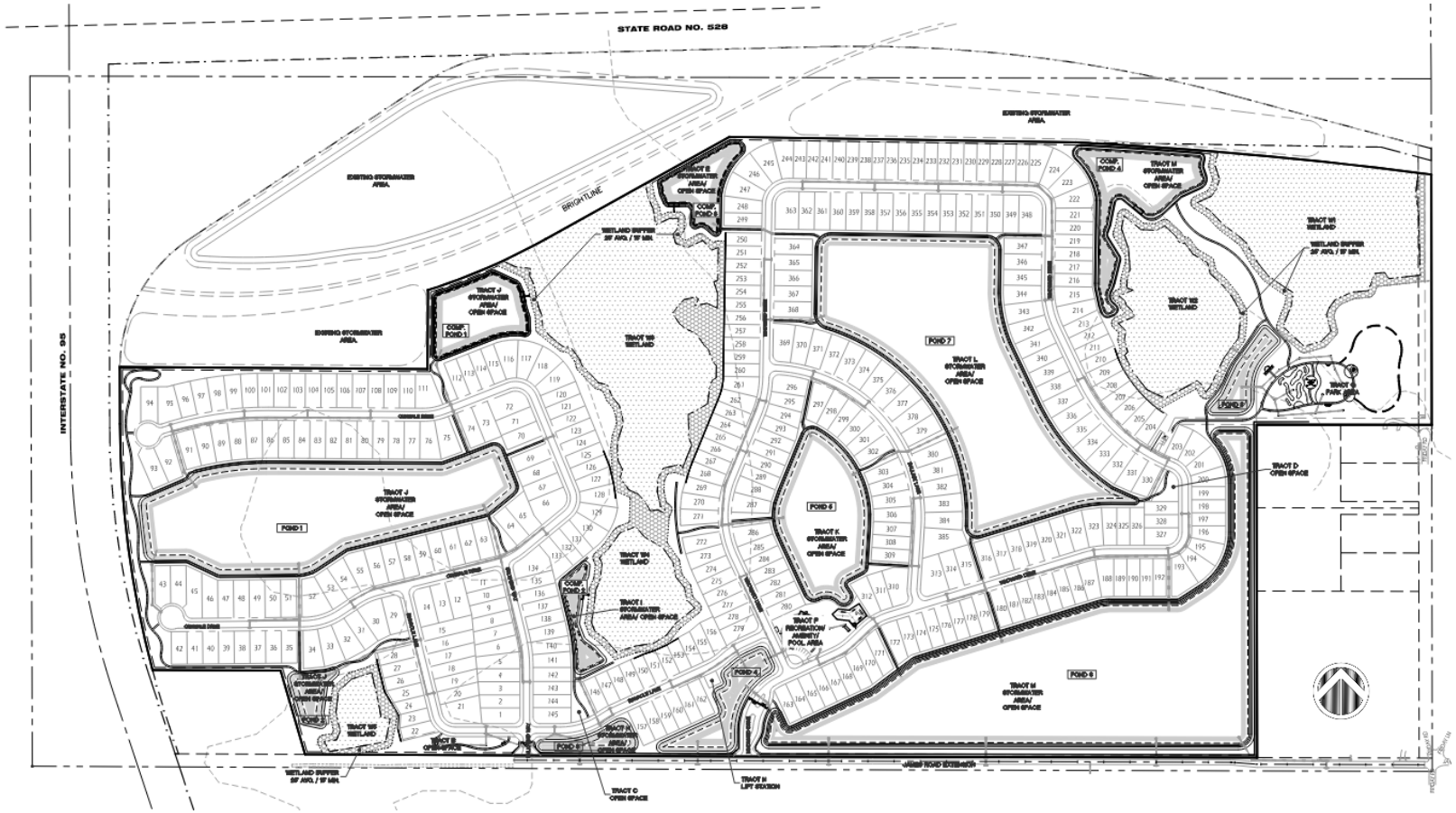
- Neighborhood Layout
- Open Space & Recreation
- Streetscape
- Architectural Elevations
- Traffic Analysis
- Drainage Analysis
- School Analysis
- Q & A



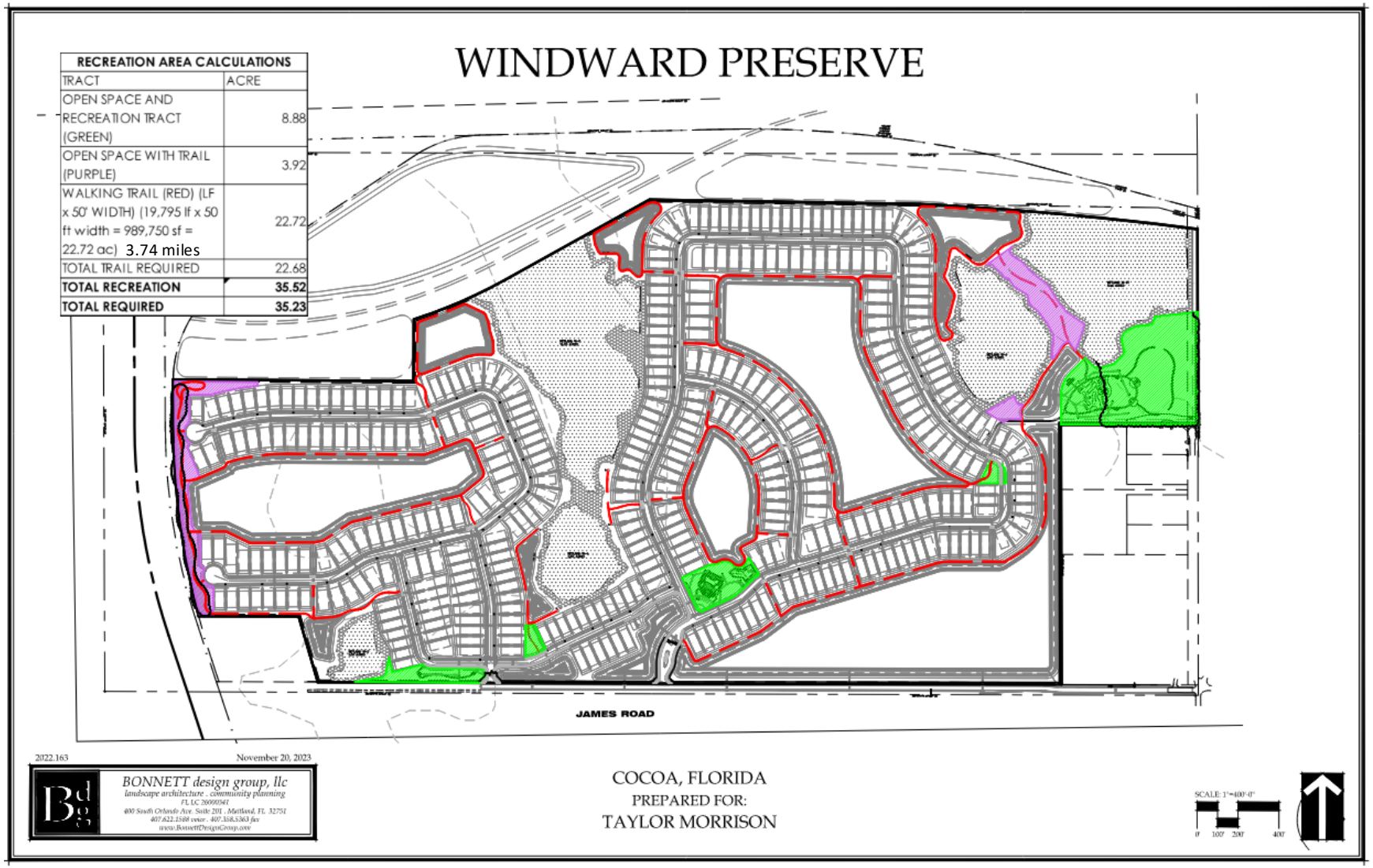


Neighborhood Layout & Plan Details

- 385 units constructed in 2 phases within a timeframe of 5 to 7 years
- Lot count is reduced by 33 from the approved Settlement Implementation Agreement.
- 212.1 acre site
  - 34.92 acres of wetlands and upland buffers preserved in a conservation easement granted to City
  - 35.52 acres of additional open space with 3.74 miles of interconnected trails
- 2 lot sizes of 50’ and 60’ wide
- 7.54 acres of private amenities



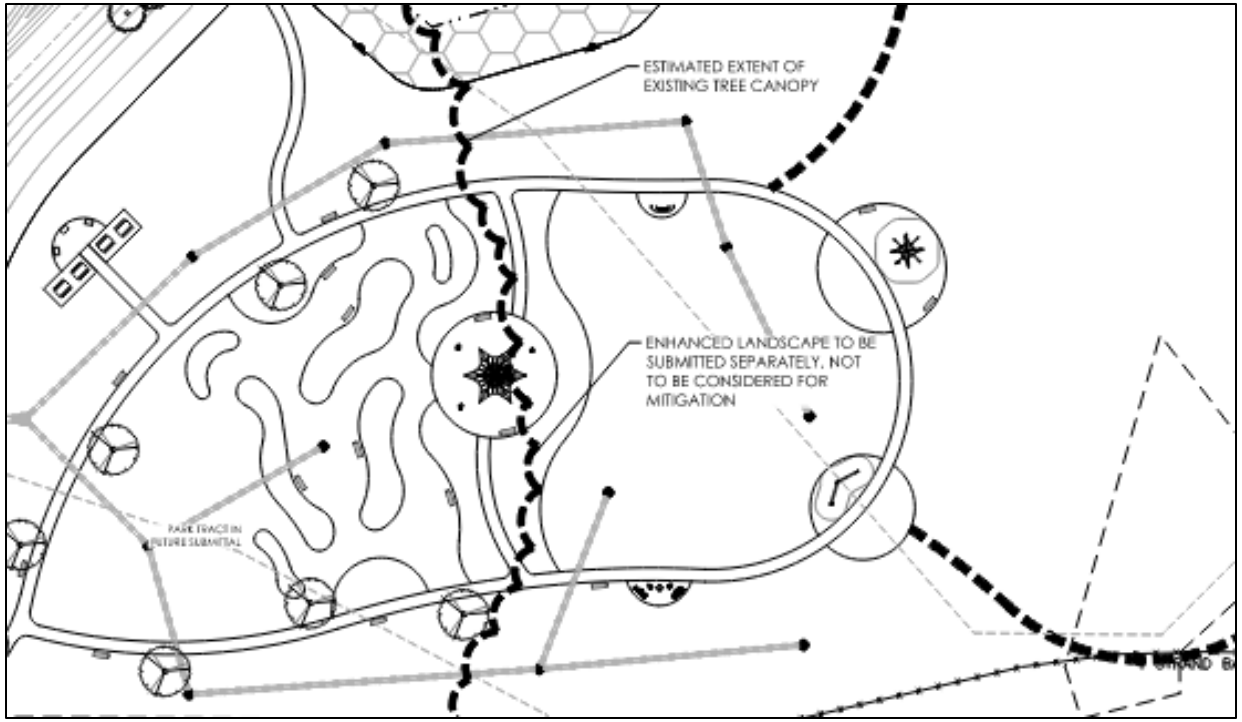
Open Space & Recreation

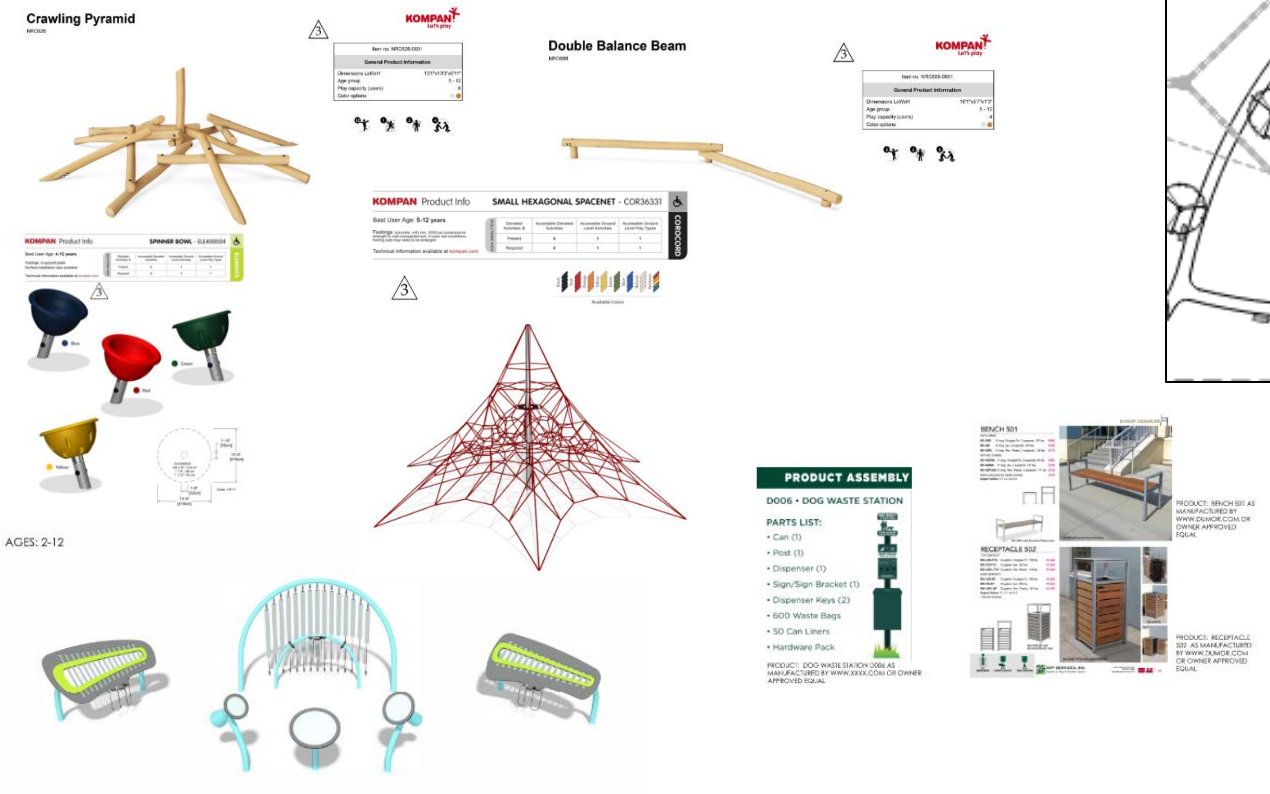


Open Space & Recreation

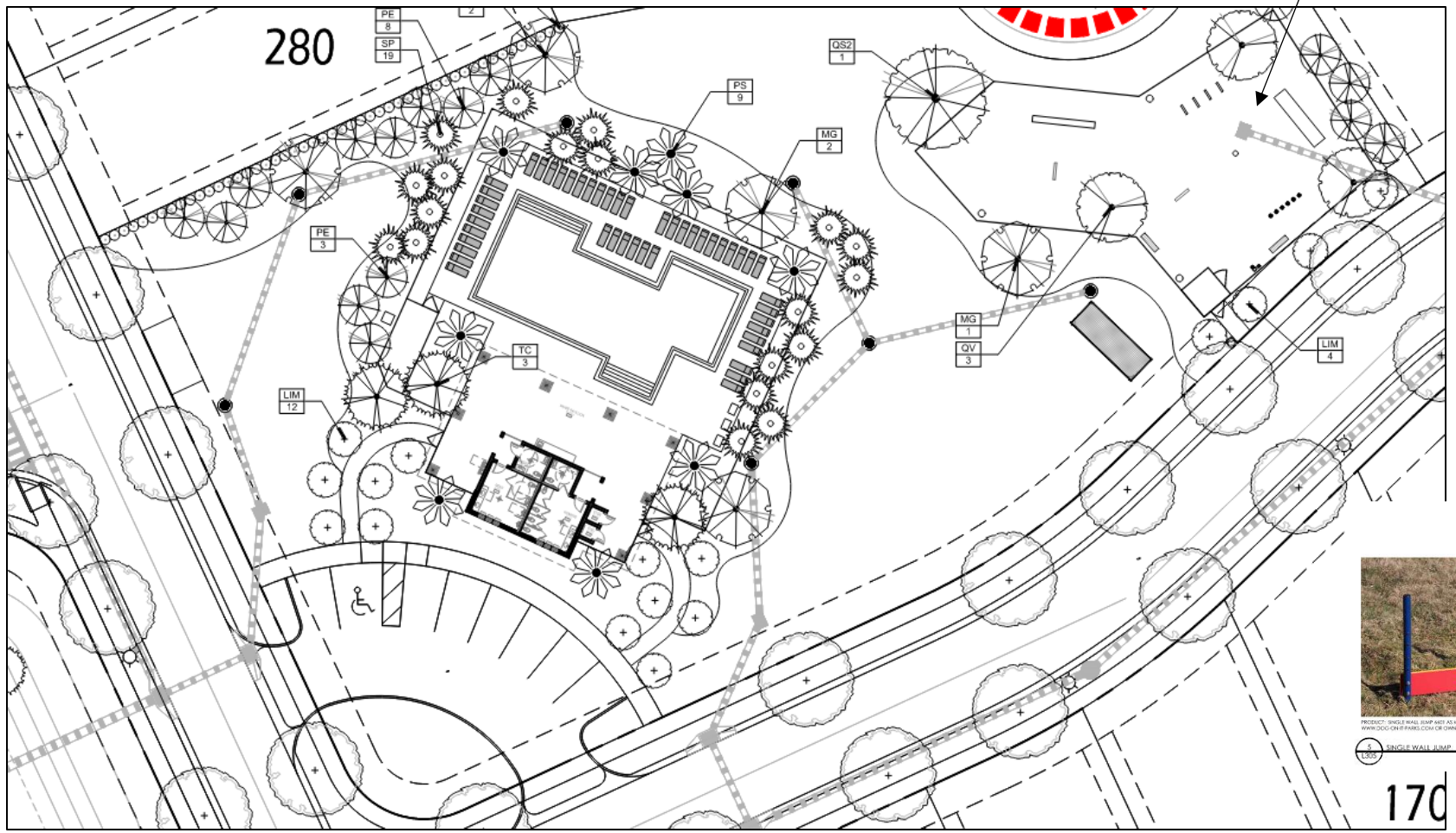
Nature Play Space – 6.28 acres on Tract G

“Naturalized playgrounds meant to activate children’s senses and encourage dynamic learning in an outdoor environment.” - National Wildlife Federation





Open Space & Recreation





PRODUCT: ADJUSTABLE TIRE JUMP 6520 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

1 L305 ADJUSTABLE TIRE JUMP SCALE: NTS



PRODUCT: DOG WALK RAMP 6402 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

2 L305 DOG WALK RAMP SCALE: NTS



PRODUCT: DOUBLE WALL JUMP 6602 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

3 L305 DOUBLE WALL JUMP SCALE: NTS



PRODUCT: HOUND HURTLES 6520 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

4 L305 HOUND HURTLES SCALE: NTS



PRODUCT: SINGLE WALL JUMP 6603 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

5 L305 SINGLE WALL JUMP SCALE: NTS



PRODUCT: TEETER TOTTER 6412 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

6 L305 TEETER TOTTER SCALE: NTS



PRODUCT: WEAVE POLES 6516 AS MANUFACTURED BY WWW.DOG-ON-IT-PARKS.COM OR OWNER APPROVED EQUAL

7 L305 WEAVE POLES SCALE: NTS

Open Space & Recreation



PROPOSED CLUBHOUSE FRONT ELEVATION

Streetscape

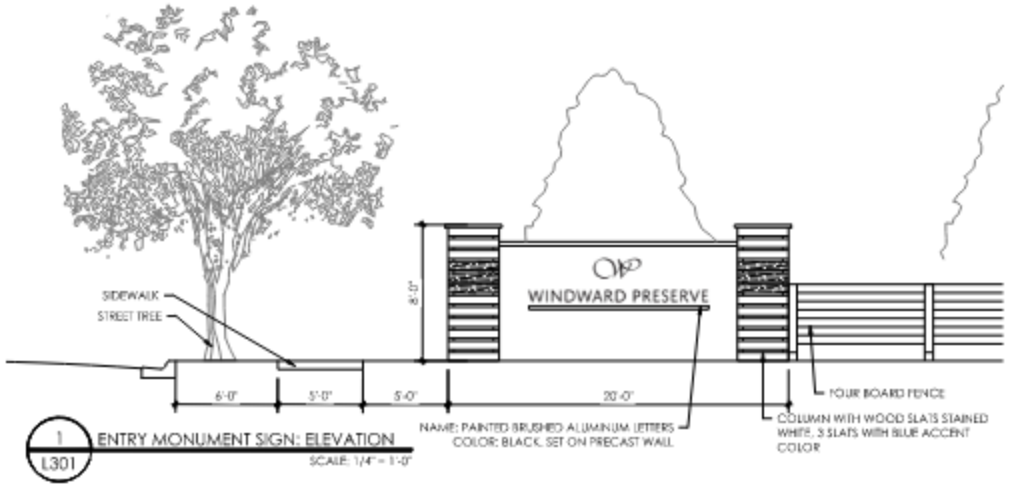
1 canopy tree every 50 lineal feet along internal streets

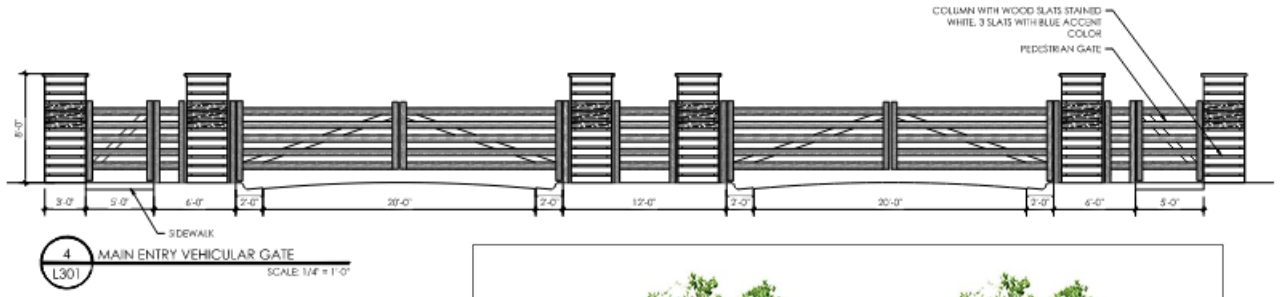
5-foot sidewalks on both sides of streets

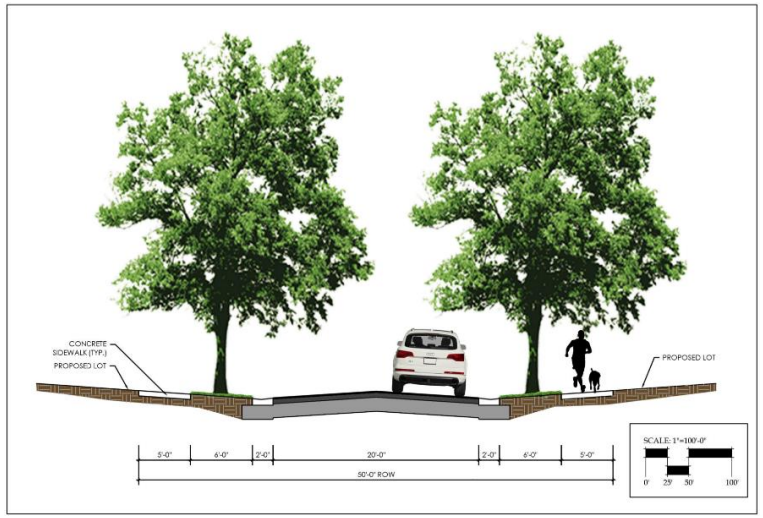
Monotony condition to prevent same house elevation from being built adjacent to, across the street, or diagonal from the same house elevation.

Designed with 98% of the trees being Florida Native.

- Red Maple – Native
- Muskogee Crape Myrtle – Non-native
- Bracken's Southern Magnolia – Native
- Wild Date Palm – Non-native
- Slash Pine – Native
- Shumard Oak – Native
- Live Oak – Native
- Sabal Palm – Native
- Golden Trumpet Tree – Non-native
- Bald Cypress - Native







Architectural Elevations



INCLUDED ELEVATION



ELEVATION A



INCLUDED ELEVATION



ELEVATION A



INCLUDED ELEVATION



ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION B



ELEVATION C



ELEVATION B



ELEVATION C

TRADITIONAL

CRAFTSMAN

MEDITERRANEAN

Amelia

4 BED, 3½ BATH, 3 CAR GARAGE, ONE-STORY - 2,755 SQ. FT.

COA #11. The same architectural elevation shall not be built on a lot that is adjacent to or directly across the street from, or diagonal to the lot.

We will be offering 8 models, each with multiple elevations based on architectural style.

Traffic Analysis

Table 5
Trip Generation
Silvestri Property

Time Period	Land Use	ITE LUC	Trip Rate Equation	Size	Units	Percent Entering	Percent Exiting	Trips Entering	Trips Exiting	Total Trips
Daily	Single-Family Detached Housing	210	Ln(T) = 0.92 Ln(X) + 2.68	385	DU	50%	50%	1,744	1,744	3,488
AM Peak Hour			Ln(T) = 0.91 Ln(X) + 0.12			26%	74%	66	188	254
PM Peak Hour			Ln(T) = 0.94 Ln(X) + 0.27			63%	37%	222	131	353

Impact Fees Generated

Brevard County Transportation Impact Fee is $4,353 per single-family unit.

385 * $4,353 = $1,675,905 generated by project

Recommended improvements based on approved Traffic Impact Study

- SR 524 at I-95 NB Ramps: Add free-flow yield for northbound right-turn approach
- SR524 at Friday Road: Add protected and permitted to eastbound left and westbound left phase & optimize splits

Brevard County just completed construction of an additional lane at the Friday Road/SR 524 intersection.

Intersections & Roadways Analyzed

Intersections:

- SR 524 at I-95 SB Off Ramp
- SR 524 at I-95 NB Off Ramp
- SR 524 at Friday Road
- SR 524 at Cox Road
- Friday Road at James Road
- James Road at Project Driveway 1
- James Road at Project Driveway 2

Roadway Segments:

- SR 524 from I-95 to Clearlake Road
- Friday Road from SR 524 to James Road
- James Road from Friday Road to Cox Road
- Cox Road f rom SR 524 to James Road

Drainage Analysis

The site discharges into closed wetlands onsite, which discharge to three tailwater nodes (JAM-120, Beachline CD-13, and 528 Culvert).

On-site wet retention ponds provide water quality and attenuation for the proposed improvements.

Portions of property are within Flood Zone A and Flood Zone X. Compensating storage is provided onsite for all floodplain areas impacted by development.

Reviews conducted by SJRWMD, City of Cocoa, Brevard County, and FDEP.

Discharge Rate Summary						
	Predevelopment		Postdevelopment		Difference	
	MA-24	25-24	MA-24	25-24	MA-24	25-24
Beachline CD-13	16.66	158.65	9.80	31.49	-6.86	-127.16
528 Culvert	7.37	51.23	0	3.46	-7.37	-47.77
JAM-120	4.68	22.23	0	0	-4.68	-22.23

The above table shows that the post-development discharge is equal or less than the predevelopment rates for each discharge location, and each required design storm.

School Analysis

School Capacity Analysis governed by the Interlocal Agreement for Public School Facility Planning & School Concurrency. Project will contribute $1.9M in school impact fees.

Karen Black, AICP, Manager of Facilities Planning & Intergovernmental Coordination, issued a capacity reservation letter on 11/28/23. Capacity is reserved for 24 months.

Single-Family Homes	385		
Students Generated	Student Generation Rates	Calculated Students Generated	Rounded Number of Students Generated
Elementary	0.24	92.4	92
Middle	0.07	26.95	27
High	0.12	46.2	46
Total	0.43		165

FISH Capacity (including relocatable classrooms) from the Financially Feasible Plan (FFP) Data and Analysis for School Years 2023-24 to 2027-28

School	2023-24	2024-25	2025-26	2026-27	2027-28
Saturn	998	998	998	998	998
Cocoa	2,097	2,097	2,097	2,097	2,097
Cocoa	2,097	2,097	2,097	2,097	2,097

Total Projected Student Membership (includes Cumulative Impact of Proposed Development)

School	2023-24	2024-25	2025-26	2026-27	2027-28
Saturn	649	717	901	897	912
Cocoa	1,536	1,565	1,544	1,544	1,503
Cocoa	1,536	1,575	1,564	1,569	1,532

Projected Available Capacity = FISH Capacity - Total Projected Student Membership

School	2023-24	2024-25	2025-26	2026-27	2027-28
Saturn	349	281	97	101	86
Cocoa	561	532	553	553	594
Cocoa	561	522	533	528	565

At this time, **there is projected to be sufficient capacity at every school level for the proposed Windward Preserve development.**

Q & A

Thank you!

Heather Isaacs
VP, Land Development
Taylor Morrison
Hisaacs@TaylorMorrison.com or 407-840-1175

Legislation Details (With Text)

File #:	24-097	**Version:**	1	**Name:**	
Type:	Awards/Presentations			**Status:**	Agenda Ready
File created:	2/21/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Presentation of CMC Pin to Monica Arsenault, City Clerk. (Gwen Pierce, FACC Central East District Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 22, 2024
Agenda Date: February 27, 2024
Prepared By:
Through: Gwen Pierce, FACC Central East District Director
Requested Action:
Presentation of CMC Pin to Monica Arsenault, City Clerk.

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

N/A

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Legislation Details (With Text)

File #:	24-107	**Version:**	1	**Name:**	
Type:	Awards/Presentations			**Status:**	Agenda Ready
File created:	2/22/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Historic Cocoa Village Main Street's Annual Report. (HCVMS)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 22, 2024
Agenda Date: February 27, 2024
Prepared By: Monica Arsenault, City Clerk
Through: Historic Cocoa Village Main Street
Requested Action:
Presentation of Historic Cocoa Village Main Street's Annual Report. (HCVMS)

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

N/A

powered by Legistar™

Legislation Details (With Text)

File #:	24-048	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	1/19/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approve a Resolution Amending the FY24 Budget, BAF# 24-046-A in the amount of $13,457 with the use of Federal Forfeiture funds to Train Police Officers in mandatory Active Assailant Training using Ultimate Training Munitions Contract # 47QSWA19D00AS for purchase of required equipment. (Police Chief)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	UTM Quote Q16989-2 (1).pdf Budget Resolution FY 2024- ADA Compliant.pdf BAF 24-046-A-PD- Fed Forfeiture_Active Assailant Training (02-13-24) Agenda 24-048.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 19, 2024
Agenda Date: February 13, 2024
Prepared By: Susan L. Lambert, CAP, OM, Administrative Technician
Through: Evander Collier, IV, Chief of Police
Requested Action:
Approve a Resolution Amending the FY24 Budget, BAF# 24-046-A in the amount of $13,457 with the use of Federal Forfeiture funds to Train Police Officers in mandatory Active Assailant Training using Ultimate Training Munitions Contract # 47QSWA19D00AS for purchase of required equipment.

BACKGROUND:

On April 3, 2023, Governor DeSantis signed House Bill 543 into law. This legislation became Ch. 2023-018, Laws of Florida, and in part requires each law enforcement agency in this state to have a written active assailant response policy by October 1, 2023. This policy is to be consistent with each agency's response capabilities and include response procedures specifying command protocol and coordination with other law enforcement agencies in each geographic region. Each agency is to ensure that all sworn personnel have been trained on the agency's existing active assailant response policy, and that sworn personnel are trained within 180 days (six months) after enacting a new or revised policy. Furthermore, each agency is to ensure that all sworn personnel receive annual training on the policy.

Budgets for FY24 have been finalized and are underway. However, the use of the Federal Forfeiture funds for the above Active Assailant training scenario, is permissible under the Guide to Equitable

Sharing, page 14, section B.1.b. which states: “Law enforcement training and education-Training of investigators, prosecutors, and sworn and non-sworn law enforcement personnel in any area necessary to perform official law enforcement duties, such as canine handler, narcotics, defensive tactics, criminal justice, language, constitutional law, accounting/finance, or forensics-provided that the employees’ regular duties require knowledge of these topics. Examples include training and conference registration fees, tuition, speaker fees, or costs to produce training curricula.” As an allowable expense, and requires that the Chief of Police certify it as a valid expenditure.

The multi-colored blanks, 9mm marking rounds, and helmets are needed to conduct live/realistic training scenarios. With this training equipment, our officers will be immersed in a realistic scenario utilizing role players and training weapons that utilize blank cartridges that simulate gunfire. During this training, due to the projectiles, helmets are required to protect the officer's/role player’s eyes and faces.

Our current Active Assailant Instructors are Commander Anthony Marchica and Lieutenant Michael Dellatorre. Both have attended the FDLE Active Assailant Instructors course, and have assisted in conducting this instructor course for the Department and the AAT to School Resource Officers (SROs) through Eastern Florida State College (EFSC). The Police Department currently has General Order 0602 covering the Active Assailant Event. Further, we have adopted Eastern Florida State College’s Lesson Plan regarding Active Assailant training.

The Police Department would be looking to expend these funds from Ultimate Training Munitions using quote Q16989, and contract number 47QSWA19D00AS for purchase of required equipment.

STRATEGIC PLAN CONNECTION:

Operational

BUDGETARY IMPACT:

Budgeted	No
If not budgeted, is amendment/transfer attached?	Yes

Amount Requested	$ 13,457
Account Number	_143-2100-521.52-00
Account Name	_Federal Forfeiture/Law Enforcement/Operating

Source of Funds:
____State Revolving Loan
____ Other Loan Source:_
____ Grant Source:_
____ Bond:_
__X__ Reserves Source:_143-0000-389.99-50
____ Transfer Acct #

PREVIOUS ACTION:

None.

RECOMMENDED MOTION:

Approve a Resolution Amending the FY24 Budget, BAF# 24-046-A in the amount of $13,457 with the use of Federal Forfeiture funds to Train Police Officers in mandatory Active Assailant Training using Ultimate Training Munitions Contract # 47QSWA19D00AS for purchase of required equipment.

Order Quotation

Ultimate Training Munitions
55 Readington Road
North Branch, NJ 08876
Phone: (908)725-9000
Fax: (908)725-0457

Quote#: 16989 Quote Date: **2024-01-16**

Customer	Service to
COCOA POLICE DEPARTMENT	COCOA POLICE DEPARTMENT 1226 W. KING ST. COCOA, FL, 32922, US

Contact	Phone Number	Email	Account#
DELLATORRE, MICHAEL	321-637-6367	mdellatorre@cocoapolice.com	33138

Quote Name	Quote Expiration Date	ARO Days	Terms
	2024-03-09		**30 NET**

Entered By	Sales Rep.	Currency	Freight Terms
GGARZA	**House account**	**USD**	**FCA TX**

Note:

Line	UTM PART# / Description / Note	Quantity	UOM	Unit Price	Total Net	Sales Tax	FET
1	01-3910 AR-15 5.56 MMR/BLANK KIT AND MAGAZINE ESTIMATED 120 DAYS LEAD TIME	2	Ea	375.00000	750.00000	0.00000	0.00000
2	01-3312 SIG SAUER P320 FULL 9MM MMR KIT ESTIMATED 120 DAYS LEAD TIME	8	Ea	700.00000	5,600.00000	0.00000	0.00000
3	01-0976 >> 9MM MMR RED ESTIMATED 120 DAYS LEAD TIME	4000	Ea	0.67000	2,680.00000	0.00000	0.00000

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GSA pricing available on contract items: Contract # 47QSWA19D00AS

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Entered By	Sales Rep.	Currency	Freight Terms
GGARZA	**House account**	**USD**	**FCA TX**

Note:

Line	UTM PART# / Description / Note	Quantity	UOM	Unit Price	Total Net	Sales Tax	FET
4	01-0971 >> 5.56MM MMR RED ESTIMATED 120 DAYS LEAD TIME	900	Ea	0.94000	846.00000	0.00000	0.00000
5	02-2849 AR-15 UNIVERSAL BLUE MAGAZINE ESTIMATED 120 DAYS LEAD TIME	2	Ea	21.00000	42.00000	0.00000	0.00000
6	69-HELMET-BLACK HELMET ESTIMATED 120 DAYS LEAD TIME	8	Ea	214.00000	1,712.00000	0.00000	0.00000

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Entered By	Sales Rep.	Currency	Freight Terms
GGARZA	**House account**	**USD**	**FCA TX**

Note:

Line	UTM PART# / Description / Note	Quantity	UOM	Unit Price	Total Net	Sales Tax	FET
7	01-3090 9MM BBR ESTIMATED 120 DAYS LEAD TIME	1000	Ea	0.60000	600.00000	0.00000	0.00000
8	01-0963 5.56MM BBR ESTIMATED 120 DAYS LEAD TIME	900	Ea	0.81000	729.00000	0.00000	0.00000
9	FREIGHT CHARGE FREIGHT CHARGES ADDED GROUND	1	Ea	497.50000	497.50000	0.00000	0.00000

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	2024-03-09		30 NET

Entered By	Sales Rep.	Currency	Freight Terms
GGARZA	House account	USD	FCA TX

Note:

Line	UTM PART# / Description / Note	Quantity	UOM	Unit Price	Total Net	Sales Tax	FET

For your convenience we also accept all major Credit Cards.
A 3% convenience charge will be added to the payment.

Total w/o Sales Tax or FET:	13,456.50
Sales Tax Total:	0.00
FET Total:	0.00
Quotation Total:	13,456.50

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GSA pricing available on contract items: Contract # 47QSWA19D00AS

UTM - GENERAL TERMS AND CONDITIONS

The following terms and conditions are those under which **Ultimate Training Munitions, Inc.** (hereinafter referred to as "Seller") shall quote for sale, or shall sell, non-lethal training ammunition and related conversion kits, along with related accessories and personal protective equipment (hereinafter collectively referred to as the "Products") to any person or entity (hereinafter referred to as "Buyer") offering to purchase or purchasing the Products. These terms and conditions supersede any contained in any prior proposals, negotiations and representations made by Seller, if any.

1. PRICES. Written Price quotations expire thirty (30) calendar days from the date on which they are issued and are subject to cancellation by the Seller within that period on notice to the Buyer.
   All Prices quoted for the Products are subject to change without notice. On orders calling for future delivery, Seller reserves the right to invoice the Buyer for the Products purchased at the Prices for those Products that are in effect at the time of shipment of those Products.
   Prices on the Products are exclusive of all city, state, and federal excise taxes including, without limitation, taxes on manufacture, sales, receipts, gross income, occupation, use and similar taxes. Wherever assessed in connection with the Buyer's purchase or use of the
   Products, the amount of any tax or taxes on the Products will be added to the invoice as a separate charge or charges to be paid by the Buyer. In order to eliminate the need for Seller to collect any such taxes, the Buyer agrees to provide Seller with a tax exemption certificate issued by the relevant taxing authorities.
2. TERMS OF PAYMENT. Unless otherwise agreed, payment for all Products will be Payment in Advance. If in Seller's sole opinion the financial condition of the Buyer at any time does not justify continuance of production or shipment on the terms of payment specified, Seller may require full or partial payment in advance. Buyer shall have no right to withhold or to set off against any payments to Seller to compensate for any claims Buyer allegedly has against Seller.
   Interest at the rate of one and one-half percent (1½%) per month, but not in excess of any applicable lawful maximum amount, may be assessed on, and added to, all invoices issued to Buyer that are considered overdue. All costs of collection, including reasonable attorney's fees, expended by Seller in connection with any outstanding amounts owed by Buyer shall be added to the unpaid balance of Buyer's account with Seller.
3. ORDERING: Complete model number and product description should be given for each Product ordered. To avoid possible errors and delays, orders initially entered by telephone should be confirmed by a follow-up written purchase order. All change or add orders must be received within two (2) working days of original order date.
4. ORDER ACKNOWLEDGEMENT AND ACCEPTANCE: Seller will acknowledge each purchase order with a Promise Ship Date based on availability at the time the order is placed. Buyer agrees to update their purchase order with the acknowledged Promise Ship Date. Seller will consider the order accepted after twenty-four (24) hours from acknowledgement unless changes are communicated by the Buyer. Once accepted, all orders become non-cancelable, and the Products non-returnable, at Seller's sole discretion.
5. RISK OF LOSS. Buyer assumes responsibility for all risk of loss and damage to the goods when Seller places the Products at the disposal of Buyer, or when Seller places the goods with a common carrier at Seller's place of business in Brownsville, Texas, or at such other location as Seller may designate. Identification of the goods to the contract shall occur as each shipment is placed in the hands of the carrier. All shipments are insured at the purchaser's expense.
6. DELIVERY. Unless freight is paid directly by the Buyer, the Buyer will be invoiced FCA Seller's warehouse or distribution location to point specified on the purchase order. When direct airfreight shipments are requested, freight will be invoiced FCA Seller's point of origin to delivery point specified on the purchase order. Buyer will be invoiced for freight on original invoice forwarded when goods are shipped. Shipments made within fifteen days after specified scheduled ship date shall constitute good delivery. Unless an order is marked "Complete Shipment Only", and unless otherwise agreed in writing at the time an order is placed, Seller reserves the right to make partial shipments to Seller independently of the remaining portion of the order, and to submit invoices for partial shipments in accordance with these terms and conditions.
   Stated delivery dates are non-binding estimates only unless specifically stated in writing by the Seller to be binding. In no event shall the contract of sale be subject to cancellation by the Buyer as a result of delays in delivery or for any other cause, except by mutual written agreement of the parties. In no event shall Seller be obligated to purchase goods from others in order to enable it to supply Products to Buyer.
   Seller shall not be liable for unavoidable delays in delivery caused indirectly or directly or in any manner by floods, accidents, riots, acts of God, war, government interference, embargoes, strikes, labor difficulties, shortage of labor, fuel, power, materials or supplies, transportation delays or any other cause or causes (whether or not similar in nature to any of the specified herein) either beyond Seller's control or which it cannot remedy without great economic hardship. Seller shall have the right, in the event of the happening of any of the above contingencies, at its option, to cancel this contract, or any part thereof, without any resulting liability.

If completion or delivery of the Products is delayed due to the fault of the Buyer, Buyer shall be charged for storage of the Products. Seller shall be entitled to dispose of the Products if Buyer delays delivery of the Products beyond a reasonable period of time. Any delivery not in dispute shall be paid for regardless of other controversies relating to other delivered or undelivered merchandise. If Buyer proves that Seller has failed to comply with a binding delivery date through its own fault, Buyer shall be entitled to actual damages suffered by it because of the late delivery. However, such damages shall not exceed five percent (5%) of the value of the Products delivered late.

Customer will not sell or ship any Products purchased from Ultimate Training Munitions, Inc. outside of the contiguous United States, Alaska and Hawaii unless Customer has the appropriate authorization and complies with all applicable laws, rules and regulations including but not limited to a) International Traffic in Arms Regulations (ITAR) and b) for Products that originate in United Kingdom, an authorization from UK Department of International Trade which among other things require a completed End User Certificate (EUC) per https://www.gov.uk/government/publications/end-user-undertaking-euu-form.
GSA pricing available on contract items: Contract # 47QSWA19D00AS

7. ACCEPTANCE OF ORDERS. All orders are subject to acceptance and approval at Seller's office in North Branch, New Jersey.
8. WARRANTY. Seller warrants the Products to be free from defects in material and workmanship under normal use and service for a period of six (6) months from the date of shipment. If the Products should fail to conform to this Agreement or to any warranty outlined herein, Buyer's remedies shall be limited to the repair or replacement, at Seller's option, of the nonconforming Products or parts thereof.
   Seller makes no representations or warranties except such as are expressly contained herein.
   Buyer shall return any defective Products or parts, freight prepaid, to the Seller's service facilities in the continental United States. Buyer shall bear all costs of labor and installation pertaining to any such defective Products or parts. No Products or parts may be returned without Seller's prior written approval. Any defective Products or parts that have been replaced by Seller shall become Seller's property.
   THE FOREGOING WARRANTIES ARE EXCLUSIVE AND SELLER DISCLAIMS ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS
   FOR A PARTICULAR PURPOSE. THE REMEDIES PROVIDED IN THIS PARAGRAPH SHALL BE THE SOLE AND EXCLUSIVE REMEDIES OF BUYER, OF SUBSEQUENT BUYERS, AND OF ANY OTHER PERSON, WITH RESPECT TO THE BREACH OF SUCH WARRANTIES.
9. EXCLUSION OF CERTAIN CLAIMS
   IN NO EVENT SHALL SELLER BE LIABLE UNDER THIS AGREEMENT, OR WITH RESPECT TO THE PRODUCTS OR THEIR USE,
   FOR ANY INCIDENTAL, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, WHETHER CLAIMED ON THE BASIS OF BREACH OF CONTRACT OR WARRANTY, TORT (INCLUDING STRICT LIABILITY) OR ANY OTHER LEGAL THEORY, EVEN IF SELLER IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
10. INSPECTION. Buyer shall, within ten (10) days after delivery of the Products to the Buyer, notify Seller of any claim or objection that would be reasonably discoverable upon inspection of the Products. All claims for breakage, damage and non-delivery should be made to the transportation company handling shipment. Seller will offer its reasonable assistance in presenting any such claims. The retention
    of the Products by Buyer beyond that time period, or the use of the Products by the Buyer for any purpose whatsoever shall, in either instance, constitute an unconditional acceptance of the Products by Buyer with respect to any such defects, and no claim or liability in this respect shall thereafter survive or be enforceable against Seller.
11. CHANGES AND CANCELLATION. Orders accepted by Seller are not subject to change, cancellation or suspension, except with Seller' s written consent, and upon terms that will indemnify Seller against loss.
12. SHORTAGES AND RETURNS. All claims for shortages must be made by Buyer to Seller within ten (10) days after receipt of shipment by Buyer. Seller must obtain prior written authorization from Seller's home office before any Products are returned. Seller reserves the right to refuse shipments of Products from Buyer that returned without authorization, and to return any such shipments to Buyer on a collect basis. Products that are returned by Buyer to Seller may be subject to a restocking fee.
13. AGREEMENT. The terms and conditions herein shall supersede any provisions, terms, and conditions contained on any Purchase Order, confirmation, or any other writing Buyer may give or receive, and the rights of the parties shall be governed exclusively by the provisions, terms, and conditions hereof. Seller hereby objects to and rejects any and all additional or different terms proposed by Buyer, no matter where contained.
    If this quotation is accepted and Buyer's order form is used for that purpose, it is expressly understood and agreed between the parties hereto that the terms and conditions herein set forth shall prevail insofar as the same may in any way conflict with the terms and conditions set forth in such order form, and the issuance of such order by Buyer shall be deemed to note Buyer's assent to the foregoing.
    In the event that this document is deemed to be an offer, acceptance is expressly conditioned on Buyer's assent to all terms hereof, including those which are additional to or different from the terms contained in any terms and conditions of Buyer. Acceptance of the Products sold hereunder shall constitute assent to these conditions. If these terms and conditions are not assented to, Buyer must notify Seller at once, but in any event, within five (5) days after receipt hereof.
14. MODIFICATION. No sales representative, agent or employee of Seller is authorized to alter, vary or waive any of the terms and conditions herein, and no terms or conditions other than those stated herein, and no agreement or understanding, oral or written, purporting to modify those terms and conditions, shall be binding on Seller unless hereafter made in writing and signed by an officer of Seller.
15. SEVERABILITY. If, for any reason, any of the terms or provisions of this Agreement are or hereafter become void, the other terms or provisions shall remain in force and effect.
16. NO WAIVER. The failure or omission of Seller to insist, in any instance, upon strict performance by Buyer of any terms or condition of this Agreement, or to exercise any of Seller's rights hereunder, shall not be deemed to be a modification of any terms hereof or a waiver or relinquishment of the future performance of any such terms or condition by Seller, nor shall such failure or omission constitute a waiver of the right of Seller to insist upon future performance by Buyer of any such term or condition.
17. APPLICABLE LAW. This quotation and the acceptance of it shall be governed by and construed in accordance with the laws of the State of Delaware. Exclusive jurisdiction over this Agreement, or otherwise relating to the commercial relationships of the parties, shall be vested in the federal or state courts located in the State of Delaware and, for this purpose, the parties hereby submit to the personal jurisdiction of such court(s)

Customer will not sell or ship any Products purchased from Ultimate Training Munitions, Inc. outside of the contiguous United States, Alaska and Hawaii unless Customer has the appropriate authorization and complies with all applicable laws, rules and regulations including but not limited to a) International Traffic in Arms Regulations (ITAR) and b) for Products that originate in United Kingdom, an authorization from UK Department of International Trade which among other things require a completed End User Certificate (EUC) per https://www.gov.uk/government/publications/end-user-undertaking-euu-form.
GSA pricing available on contract items: Contract # 47QSWA19D00AS

RESOLUTION NO. 2024-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AMENDING THE CITY OF COCOA BUDGET FOR FISCAL YEAR 2024; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Cocoa adopted the final budget for the fiscal year commencing on October 1, 2023, and ending on September 30, 2024, at a Regular meeting held on September 26, 2023; and

WHEREAS, in accordance with Article XII, Section 5 of the City of Cocoa Charter, whereby the Council may, at any time by resolution, transfer any unused and unencumbered appropriation or portion thereof from one office or department to another; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to amend its budget as provided in this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1. The 2023-2024 fiscal year budget shall be amended as detailed in the attached sheets.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, at a Regular City Council meeting assembled on the 13th day of February, 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, Interim City Clerk

City of Cocoa Budget Adjustment Form FY 2024 - 24-046-A

SELECT ADJUSTMENT TYPE: BUDGET AMENDMENT | REQUESTING DEPARTMENT #: 2100 | DATE PREPARED: 01/19/24

'REVENUE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 13,457	143-0000-389.99-50		Balance Forward/Cash Carryforward Rest.	$ 0	$ 0	$ 13,457	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 13,457	TOTAL						

'EXPENSE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 13,457	143-2100-521.52-00		Law Enforcement/Operating Supplies	$ 0	$ 0	$ 13,457	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 13,457	TOTAL						

REASON/JUSTIFICATION FOR ADJUSTMENT:

This amendment is necessary in order to expend Federal Forfeiture funds for "Active Assailant" training specified by Florida Law on April 3rd, 2023 (House Bill 543, CH 2023-018). The Guide to Equitable Sharing, section V, B, 1, b. allows for the ability to use these funds for this type of mandatory training and training curricula.
Agenda: 24-048

Council/Board APPROVAL REQUIRED? YES (●) NO ( ) DATE APPROVED: 02/13/24 RESOLUTION #:

City Council approval is needed for all transfers greater than $75,000 and transfers between Departments / Funds. All CRA adjustments are required to go their respective boards.

Susan Lambert Digitally signed by Susan Lambert Date: 2024.01.19 06:33:38 -05'00'	Dave Radford Digitally signed by Dave Radford Date: 2024.01.23 08:34:04 -05'00'	
Date Requestor's Signature	Date Finance Approval Signature	Date Finance Director's Signature
Evander Collier Digitally signed by Evander Collier Date: 2024.01.19 09:53:27 -05'00'	Lora Howell Digitally signed by Lora Howell Date: 2024.01.29 13:19:18 -05'00'	
Date Department Director's Signature	Date Deputy Fin. Director's Signature	Date City Manager's Signature

FINANCE USE ONLY:

Date Entered: _____ Entered By: _____ Group #: _____

Approved 07/13

Revised eform 8/3/23 - IT

Legislation Details (With Text)

File #:	24-070	**Version:**	1	**Name:**	
Type:	Contract			**Status:**	Agenda Ready
File created:	2/5/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	To Approve a Resolution Waiving the Competitive Bidding Process for the Purpose of Making an Exemption to Competitive Purchase through The Ford Meter Box Company, Inc. for the Replacement of the Existing Water Meter Test Bench and Related Appurtenances; To Approve the Purchase of the Water Meter Test Bench. (Utilities Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Ford Meter Box Company Quote No. 164140.pdf IATB113-RLRL-AMSII-RSC500 Meter Test Bench Specifications.pdf Ford Meter Box ISO9001:2015 Certificate - EXP 8/22/26.pdf Ford Meter Box Company Test Bench Sole Source Letter.pdf Resolution - Sole Source -The Ford Meter Box Company.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date:	February 5, 2024
Agenda Date:	February 27, 2024
Prepared By:	Melinda M. Keesee, Field Operations Technician
Prepared By:	Donnie Howard, Field Operations Manager
Through:	Chris M. Collier, Assistant Utilities Director
Through:	John A. Walsh, P.E., Utilities Director

Requested Action:

To Approve a Resolution Waiving the Competitive Bidding Process for the Purpose of Making an Exemption to Competitive Purchase through The Ford Meter Box Company, Inc. for the Replacement of the Existing Water Meter Test Bench and Related Appurtenances; To Approve the Purchase of the Water Meter Test Bench

BACKGROUND:

During the design phase of the existing Utilities Building, a decision was made to install two automated water meter test benches capable of testing small 5/8" X ¾" meters through large 8" meters. Installing this equipment would enable the Water Field Operations Division (WFO) team to test multiple meters simultaneously thus adding efficiency to the ongoing process of testing the metering infrastructure when a meter is pulled from the ground for replacement, or upon a customer's request. The data obtained from this valuable testing process assists the Utilities Department in determining when to replace older meters, thus ensuring the highest level of metering accuracy

which benefits the customer and the City.

On January 12, 2010, City Council approved the sole source purchase of two water meter test benches (one small and one large) manufactured by MARS Company (MARS) of Ocala, FL. This purchase was associated with the new construction of the main Utilities Department building located at 351 Shearer Blvd., and the benches were placed in service on or around November of 2010.

On December 31, 2016, MARS ceased to support the legacy computer software that operated the test benches requiring existing customers to 1) continue using the old software without software support (no annual fee up to this point), or 2) upgrade to MARS' new M3 software platform with a quoted annual software support cost of between $50K and $75K. It should be noted that the original equipment cost was $297,909.66 (PO# 53255 dated 1/19/10). The Utilities Department carefully considered the proposed cost increases and decided to continue using the old software until it was no longer operational. From December 31, 2016 until October of 2020, the Utilities Department maintained the operability of the water meter test bench through various software and hardware retrofits. During FY21, the water meter test bench became completely unusable, and residential water meters are currently tested individually on an as-needed basis with field test equipment. Due to the inoperable status of the water meter test bench, and the time associated with testing individual meters, only 10% of meters removed from the field are currently being tested. The goal is to test 100% of the meters that are removed for replacement.

Knowing the test benches needed to be replaced, the Utilities Department researched alternative solutions and determined that the water meter test bench manufactured by Ford Meter Box (Ford) is the most viable solution. The size, features, functionality, ease of maintenance, and reduced operating costs of the Ford bench were determined to be in the best interest of the City of Cocoa. In contrast with the MARs bench, the Ford bench will provide free software upgrades as long as the hardware will support the platform thus saving significant future operating costs. The Ford bench is compliant with ISO 9001 quality assurance standards and meets or exceeds American Water Works Association (AWWA) standards for water meter testing as outlined in the AWWA M6 Manual: *Water Meters-Selection, Installation, Testing, and Maintenance.* Although there are other water meter test bench manufacturers, MARS and Ford are the two primary suppliers for North America. The other manufacturers are located outside the United States.

The existing water meter bench testing equipment will be disposed of in accordance with the City of Cocoa property disposal guidelines.

Staff is recommending approval of the resolution waiving the competitive bidding process for The Ford Meter Box Company, Inc. and the approval of the purchase of the Water Meter Test Bench.

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

Budgeted	Yes
If not budgeted, is amendment/transfer attached?	N/A
Amount Requested:	$238,338.54
Account Number:	421-4025-536.64-00

powered by Legistar™

Project Number:	CA2402
Account Name:	Machinery and Equipment

PREVIOUS ACTION:

RECOMMENDED MOTION:

To Approve a Resolution Waiving the Competitive Bidding Process for the Purpose of Making an Exemption to Competitive Purchase through The Ford Meter Box Company, Inc. for the Replacement of the Existing Water Meter Test Bench and Related Appurtenances; To Approve the Purchase of the Water Meter Test Bench

Manufacturer of Quality Products for Water Distribution Systems

The Ford Meter Box Company, Inc.

775 Manchester Avenue, P.O. Box 443
Wabash, Indiana USA 46992-0443
Phone (260) 563-3171 / Fax (800) 826-3487

To: City of Cocoa
Chris M. Collier
351 Shearer Blvd
Cocoa FL 32922

Ford Quotation Number: **164140**
Job Name: **Cocoa City of-FL**
Bid Date: **1/5/2024**
Prices Firm: **3/5/2024**

LN#	Qty	Item Number	Description	Your Cost	Extended Amount	Stocking Type	Item Weight (lbs)/ea	Submittal Link
Note: This quote is an update of and supersedes our previous quotation number 160178. Please reference our new Ford quotation number 164140 on future orders.								
Note: Standard freight terms apply.								
Note: Please place our quote number on your purchase order to ensure you receive special pricing for these products.								
Note: Non-stock items are special made-to-order material. They are not returnable and manufacturing charges could be assessed in the event of a cancellation.								
1.000	1	0-MISC	INDY/AKRON COMBO BENCH IATB113-RLRL-AMSII-RSC500	$238,338.54	$238,338.54	Non-Stock		
Combination Test Bench with AMSII, Recirculation and 500 Gallon Tank (Discharge pipe (SDP-7-2-NL) included in this price)								
2.000	1	SDP-7-72-NL	2IN SWING DISCHARGE PIPE 72IN	$0.00		Non-Stock	17.7	

Discharge pipe is included in price on Line 1. At time of order, please advise the length needed for the discharge pipe.

Except as noted, all brass products manufactured by The Ford Meter Box Company meet, or exceed, the requirements of AWWA Standard C-800.

These are your costs, and your standard terms will apply. We appreciate the opportunity of quoting this project and would like to hear the outcome of your quotation.

Thanks,
Tom Philippsen, Quotation Department Manager

cc: Todd Keffaber

The Ford Meter Box Company, Inc.
775 Manchester Avenue • P.O. Box 398, Wabash, Indiana U.S.A. 46992-0398
Phone: 260-563-3171 • Fax: 800-826-3487 • Overseas Fax: 260-563-0167 • www.fordmeterbox.com

1/2/2024

City of Cocoa, FL

The following is a description of the proposed meter testing equipment.

IATB113-RLRL-AMSII-RSC500_ Combination Test Bench with AMSII, 500 Gallon Tank and Recirculation

SDP-7-72-NL _____ 2" Discharge Pipe

Indianapolis Akron Combination Test Bench

Features:

- Meter testing capability
  - (11) 5/8" & 5/8" x 3/4" Meters
  - (9) 3/4" Meters
  - (8) 1" Meters
  - (3) 1-1/4" Meters
  - (3) 1-1/2" Meters
  - (3) 2" Meters
- Bench rated for 150 psi working pressure
- Single Hydraulic clamp cylinder for small meter row
- Individual hydraulic clamp cylinders at each station on medium meter row
- Three piece in-line repairable 316 Stainless Steel ball valves
- Inlet water flow on same axis as water meters
- Hydraulic cylinder clamps are self-compensating in relationship to clamp pressure
- Spring loaded fork at each small row meter station to stabilize meter alignment
- Screw jack platform at each medium row station to align meter ports with bench ports
- Drip pan covers entire test area to collect all water during meter change out
- Drip pan and lower shelf made from Stainless Steel
- Bench legs made from heavy structural steel with fusion bonded e-coat
- Anchor holes in legs for securing to floor or leveling feet attachment

- Meter zeroing brass bleeder valve located at each station
- Large dual scale (kpa/psi) pressure gauge with pulse snubber located at the beginning and end of each row
- 2” Female Iron Pipe Inlet Connection

Included:

- All Adapters for testing 5/8” through 1” meters
- All adapters to test 1-1/4” through 2” meters

By Owner:

- Minimum 2” water supply line
- 1-1/4” drip pan sanitary drain line connection

AMSII 2” Outlet

Features:

- Flow Rates from 0.125 to 160.0+ gpm
- 3-piece in-line repairable 316 Stainless Steel Ball
  - Metal geared valve actuator
  - I/P valve positioner
  - Vee ported ball for precise control

Included:

- Flow control valve(s)

By Owner:

- Basic installation on outlet of bench
- Connect to electric enclosure via plug in cables

Automated Measuring System for High Volume Tests up to 500 gallon

Features:

- NEMA 4 Electrical enclosure with all controllers, relays, and electrical connections
- 650-gallon poly collection tank with temperature transmitter and powered drain valve
- 60” x 60” Rugged high resolution industrial floor scale with custom flow rate program
- Three piece Stainless Steel electrically controlled pneumatically actuated spring return inlet valve
- Three piece Stainless Steel electrically controlled pneumatically actuated row selection valves

- All Control valves equipped with pneumatic metal geared rack & pinon actuator
- Custom three piece Stainless Steel vee ported ball valve w/positioner for precise flow control from 0.125 to 160+ gpm
- Control valves designed to minimize water hammer
- Menu driven on screen meter testing guidance
- NTEP legal for trade scale
- Hermetically sealed IP67 scale load cells
- Weigh scales calibrated at the factory traceable to NIST
- Weigh scales can be calibrated by local service
- Factory calibration automatically corrects for latitude and altitude at installed location
- Water resistant Embedded Windows 10-based computer
- Touch screen monitor to facilitate easy data entry
- Computer mounted on sliding rail over the test meters for easy access
- Bar code imager to read water meter serial numbers.
- Modular construction for ease of service and upgrades
- All electrical components outside the enclosure 24 VDC for safety
- Switches and indicators IP69 marine grade
- Electronic connections IP67 rated
- Electric control cables have integral molded end connections
- Pre-programmed AWWA Tests with drop down menu for standard tests
- Automatically run one to five consecutive tests
- Capable of user defined tests that can be saved and recalled
- Bench is able to run additional series of tests without the need to re-purge the air or re-enter the start reading
- Automatically tares scale data at beginning of each test
- Automatically purges entrapped air from the test meters
- Monitors and prevents tank overflow
- Automatically drains collection tank at end of test
- Automatic correction for water temperature

- Automatically log every test to a csv file
- Multicolored status light visible from 360 degrees
- Warning buzzer before and during the clamping process
- Safe systematic meter release (internal pressure bled off before meters can unclamp)

Included:

- Electrical enclosure with all needed components
- Windows based human machine interface computer/terminal
- All mounting hardware for HMI
- Weigh scale platform and terminal
- Poly collection tank
- All control valves with solenoid operated pneumatic actuators
- All electrical cables required for operation
- Bar code imager to read data tags for control (serial) number entry
- Virtual Private Network for Ethernet security
- External Ethernet connection point
- OPC data server to incorporate collected test data into existing databases and spreadsheets
- All control hardware and software for recirculating or boost pump control
- Set up, Software and meter testing training included.

By Owner:

- 120 VAC 15 amp GFCI electrical outlet in close proximity (10') to the bench outlet
- Compressed air source 90 to 125 psi 5 cfm (large air storage tank preferred to minimize air compressor cycling)

Recirculating System for Akron and Combination Test Benches

Features:

- 650 gallon poly water supply tank 56" dia. X 72" high
- 25 hp vertical turbine pump with frequency speed control
- All equipment pre-mounted at factory on stainless steel skid 60" x 120"
- Reversible frequency drive mount to facilitate Left or Right hand mounting

Included:

- All electrical control cables required for operation
- Flow control bypass to allow pump to flow water between tests.
- Return pump with control relay

By Owner:

- 480 VAC 3-Phase 30 amp for main pump
- 120/240 VAC Single Phase 30/15 amp for drain pump

By Owner:

- 480 VAC 3-Phase 30 amp for main pump
- 120 VAC Single Phase 30 amp for drain pump or 208VAC 15 Amp
- Plumbing for all water connections

Notes:

Basic Installation Required before FMB technician arrives

- Unpack crates
- Position major components
  - Bench
  - Scale/Tank
  - Recirculating System components
- Connect water supply to inlet valve
- Connect to infrastructure
  - Compressed air
  - Electrical enclosure power
  - Recirculating/Boost pump power
  - Drain pump power
  - Water to clamp cylinders on bench

Training for Software and Bench Operation and Support:

- Ford Meter Box will provide full training for the City of Cocoa's meter testing staff. This will begin on day two of the installation for the designated lead and then the final two days we will be available to provide additional training as necessary to the remaining staff.

- Ford Meter Box will provide software support for the bench and will provide future standard upgrades at no charge. If a custom software change is requested or the software platform is changed the future the owner will be provided pricing for the upgrade. All past software version will be supported as long as hardware is capable of support it. Example: If a new version of our software only ran on a future version of Windows and the existing PC could not support that version, then an hardware upgrade would be necessary at the owners cost.

- Ford Meter Box will provide support for testing meters as well as necessary troubleshooting of any mechanical or electrical issues with the test bench. Any component that is under warranty will provided at no charge. Depending on the component it maybe be sent out with instructions to be replaced in the field by the owner or a representative of FMB will provide this service. This will be determined at the time of failure. Any component that is not covered by the warranty will be at the owner's expense. Any component that have failed due to abuse, improper usage, electrical damage, floods, fires etc, will not be covered under the warranty.

CERTIFICATE

This is to certify that

The Ford Meter Box Co., Inc.

775 Manchester Avenue
Wabash, IN 46992
United States of America
Reference No. 10002505

815 Miles Parkway
Pell City, AL 35125
United States of America
Reference No. 10004466

has implemented and maintains a **Quality Management System**.

Scope:

Wabash, IN: Design, manufacturing and distribution of valves, fittings, and meter setting and testing equipment for the water works industry. Sales of all products manufactured by Wabash, Indiana and Pell City, Alabama divisions.

Pell City, AL: Design, manufacturing and distribution of restraints and pipe products for the waterworks industry.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no.	10002505 QM15
Date of original certification	1996-10-04
Date of certification	2023-07-21
Valid until	2026-08-22

DQS IS A MEMBER OF

DQS Inc.

Brad McGuire
Managing Director

Accredited Body: DQS Inc., 1500 McConnor Parkway, Suite 400, Schaumburg, IL 60173 USA
The validity of this certificate can only be verified by the QR-code.

The Ford Meter Box Company, Inc.

775 Manchester Avenue • P.O. Box 443, Wabash, Indiana U.S.A. 46992-0433
Phone: 260-563-3171 • Fax: 800-826-3487 • Overseas Fax: 260-563-0167 • www.fordmeterbox.com

January 4, 2024

To: City of Cocoa, FL
Attn: Mr. Chris Collier

Subject: Ford Meter Box Water Meter Test Bench

All water meter test benches manufactured by The Ford Meter Box Company are special made to order items. The IATB113-RLRL-AMSII-RSC500 test bench is custom made to order and is only available from The Ford Meter Box Company, Inc.

Thank you for your interest in The Ford Meter Box Company and its products.

Sincerely,

Rodney A. Kelsheimer
Manager of Inside Sales

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, WAIVING THE COMPETITIVE BIDDING PROCESS AND SETTING FORTH THE BASIS OF THE CITY MANAGER'S RECOMMENDATION THEREOF BY EXHIBIT; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Section 2 of Article XIII of the City Charter of the City of Cocoa and Section 2-4 of the City Code of the City of Cocoa provides that competitive bidding is required for all purchases unless certain requirements are met for exceptions to the bidding requirement; and

WHEREAS, the City Manager has recommended that the competitive bidding requirement be waived for the purchase or public improvement described in Exhibit "A" attached to this Resolution and by this reference incorporated herein; and

WHEREAS, the City Council has determined that competitive bidding for the purchase or public improvement described in Exhibit "A" would not be in the City's best interest.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AS FOLLOWS:

SECTION 1. The purchase or public improvement described in Exhibit "A" is hereby approved and the competitive bidding requirement is hereby waived. The basis for the City Manager's recommendation that a competitive bidding procedure would not be in the City's best interest is attached to this Resolution and by this reference incorporated herein.

SECTION 2. All resolutions or parts of resolutions in conflict herewith are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon adoption by the Cocoa City Council.

ADOPTED by the City Council of the City of Cocoa, Florida, in a regular meeting assembled this 27th day of February, 2024.

_____

ATTEST: Michael C. Blake, Mayor

_____

Monica Arsenault, Interim City Clerk

EXHIBIT “A”

To Resolution No.

The City Manager recommends that the competitive bidding requirement be waived, by reason of sole source purchase, for the purpose of making a sole source purchase from The Ford Meter Box Company, Inc. for the Water meter Test Bench.

The Department Director provided supporting documentation toward justification of the waiver, based on sole source, as an exception to the sealed bidding process; and based on this documentation, I support approval of the Resolution.

_____

Stockton Witten, City Manager

Legislation Details (With Text)

File #:	24-085	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	2/14/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approve a Budget Resolution Amending the FY24 Budget, BAF#24-055-T, in the Amount of $110,000 for the Repairs of a VAC-CON Jet Vacuum Cleaner Truck System and a 2014 Tymco Street Sweeper. Authorize the City Manager to Approve Purchases up to the Budgeted Amount. (Public Works Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Budget Resolution FY 2024- ADA Compliant.pdf BAF 24-055-T-PW Repair Vacuum Tank Truck for SW (02-27-24) agenda 24-085.pdf 021424 - Southern Sewer Eq Sales - $73,109.77.pdf 022124 - Container Systems - $16,833.13.pdf 060623 - Journal - Page 2.pdf 2023-061 (Sole Source_ Southern Sewer, Inc.).pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 14, 2024
Agenda Date: February 27, 2024
Prepared By: Frank Mirabito, Streets & Stormwater Manager
Through: Abigail Morgan, P.E. - Public Works Director / City Engineer
Requested Action:
Approve a Budget Resolution Amending the FY24 Budget, BAF#24-055-T, in the Amount of $110,000 for the Repairs of a VAC-CON Jet Vacuum Cleaner Truck System and a 2014 Tymco Street Sweeper. Authorize the City Manager to Approve Purchases up to the Budgeted Amount.

BACKGROUND:

The Public Works Stormwater Utility owns and operates a 2014 VAC-CON Stormwater high water pressure jet and vacuum system, mounted to a 2021 Mack Cab & Chassis, for maintenance of the City's 65 miles of stormwater pipe and related infrastructure.

In 2022 the 12-yard debris tank was showing signs of rust deterioration on the inner walls of the tank. A steel liner was installed as a temporary repair. The tank is a VAC-CON specific custom factory tank that is designed and built by VAC-CON of Green Cove Springs, Florida. The temporary repair has now failed and a replacement tank is required. Southern Sewer Equipment Sales is the Sole Dealer for Sales, Parts & Service for the VAC-CON Factory in the State of Florida. City Council previously

approved a resolution to waive competitive bidding related to this repair on June 6, 2023 under agenda item 23-314. The estimate for the repairs of the VAC-Con truck it $73,110.

The other repair requested under this item will be to a 2014 Tymco Street Sweeper. The vehicle's pick-up assembly has rusted and needs replacement. The estimated cost of this repair is $16,834.

Funding for these repairs along with an additional $20,056 in case the actual costs of these repairs is greater than the initial estimates is being requested. BAF 24-055-T in the amount of $110,000 is attached to this agenda item. Should additional work be required, authorization is requested for the City Manager to be able to approve purchases up to the approved budget amount.

This equipment is essential to the daily operations of the Stormwater Division.

STRATEGIC PLAN CONNECTION:

The City's Stormwater Team prevents flooding and the corresponding economic impacts.

BUDGETARY IMPACT:

Budgeted	No
If not budgeted, is amendment/transfer attached?	Yes

BAF 24-055-T

Amount Requested	($110,000)
Account Number	_423-3570-528.39-00
Account Name	_Contingency

Amount Requested	$110,000
Account Number	_423-3570-528.46-03
Account Name	_Stormwater - Vehicle Repair & Maintenance

PREVIOUS ACTION:

On June 6, 2023 Council approved a resolution to waive competitive bidding, by way of Sole Source to Southern Sewer Equipment Sales of Orlando Florida for repairs to the Vac-Con.

RECOMMENDED MOTION:

Approve a Budget Resolution Amending the FY24 Budget, BAF#24-055-T, in the Amount of $110,000 for the Repairs of a VAC-CON Jet Vacuum Cleaner Truck System and a 2014 Tymco Street Sweeper. Authorize the City Manager to Approve Purchases up to the Budgeted Amount

RESOLUTION NO. 2024-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AMENDING THE CITY OF COCOA BUDGET FOR FISCAL YEAR 2024; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Cocoa adopted the final budget for the fiscal year commencing on October 1, 2023, and ending on September 30, 2024, at a Regular meeting held on September 26, 2023; and

WHEREAS, in accordance with Article XII, Section 5 of the City of Cocoa Charter, whereby the Council may, at any time by resolution, transfer any unused and unencumbered appropriation or portion thereof from one office or department to another; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to amend its budget as provided in this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1. The 2023-2024 fiscal year budget shall be amended as detailed in the attached sheets.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, at a Regular City Council meeting assembled on the 27th day of February, 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault,City Clerk

City of Cocoa Budget Adjustment Form FY 2024 - 24-055-T

SELECT ADJUSTMENT TYPE: BUDGET TRANSFER | REQUESTING DEPARTMENT #: 3570 | DATE PREPARED: 02/20/24

'FROM' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
($ 110,000)	423-3570-538.39-00		Stormwater Contingency	$ 0	$ 0	($ 110,000)	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
($ 110,000)	TOTAL						

'TO' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 110,000	423-3570-538.46-03		Repairs/Maintenance Vehicles	$ 0	$ 0	$ 110,000	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 110,000	TOTAL						

REASON/JUSTIFICATION FOR ADJUSTMENT:

Transferring $110,000 from contingency to vehicle repairs to replace the vacuum tank on the Stormwater Mack Vac-Con and the pickup assembly on the 2014 Tymco Street Sweeper. Vac-Con repair is $73,109.77, Street Sweeper repair should not exceed $30,000. Remaining funds to be used as a contingency for these two repairs. Contingency will not be included in either purchase order. Scheduled for Council on 02/27/2024. Agenda 24-085

Council/Board APPROVAL REQUIRED? YES (●) NO ( ) DATE APPROVED: 02/27/24 RESOLUTION #:

City Council approval is needed for all transfers greater than $75,000 and transfers between Departments / Funds. All CRA adjustments are required to go their respective boards.

2/20/24	Frank Mirabito (Digitally signed by Frank Mirabito Date: 2024.02.20 13:44:46 -05'00')	Dave Radford (Digitally signed by Dave Radford Date: 2024.02.20 14:49:38 -05'00')			
Date	Requestor's Signature	Date	Finance Approval Signature	Date	Finance Director's Signature
	Abigail Morgan (Digitally signed by Abigail Morgan Date: 2024.02.20 13:52:01 -05'00')	Lora Howell (Digitally signed by Lora Howell Date: 2024.02.23 10:11:33 -05'00')			
Date	Department Director's Signature	Date	Deputy Fin. Director's Signature	Date	City Manager's Signature

FINANCE USE ONLY:

Date Entered: _____ Entered By: _____ Group #: _____

Approved 07/13

Revised eform 8/3/23 - IT

Southern Sewer Equipment Sales

QUOTE

3409 Industrial 27th Street
Fort Pierce, FL 34946

1-800-782-4134

info@southernsewer.com

DATE
2/14/2024

NAME / ADDRESS	NUMBER	11133A
CITY OF COCOA ATTN: SUSAN (A/P) 65 STONE STREET COCOA, FLORIDA 32922 (email invs:a/p- no mail)		

SALESMAN	WRITTEN BY
JTB	
TERMS	PHONE #
NET 10 DAYS	

Ship To
CITY OF COCOA 301 SHEARER BLVD COCOA, FL 32922

ATTENTION	

PLEASE REFER TO QUOTE NUMBER WHEN PLACING ORDER

QTY	ITEM	DESCRIPTION	EACH	Total
0	MILEAGE	DATE/TIME:02/14/2024 VAC-CON #09115994 MODEL #V311SHA/1000 IN SERVICE DATE: FAILURE DATE: UNIT #: MILEAGE: PONY MOTOR: CHASSIS HOURS: VIN #:1FDZW82E6SVA75929	1.57	0.00
	MECHANI...	DEBRIS TANK NEEDS TO BE REPLACED.	0.00	0.00
1	711-12741	DEBRIS TANK STRUCTURE ASSEMBLY	29,442.09	29,442.09
1	711-12764	DOOR STRUCTURE ASSEMBLY	8,140.19	8,140.19
1	711-12776	WEAR PLATE ASSY 5 TO 14 YD DIA REAR DOOR	468.47	468.47
1	711-12826	DOOR SEAL AY 72" DIA REAR DOOR	427.34	427.34
1	711-12876	DOOR SAFETY PROP ASSY-5-16 YD-REAR DOOR	268.85	268.85
1	711-51441	REAR DOOR HINGE ASSY ADJUSTABLE	948.47	948.47
1	711-12984	DEBRIS TANK SCREEN ASSEMBLY (ROUND STYLE)	1,890.93	1,890.93
1	711-53365	VACUUM BREAKER STRUCTURE ASSEMBLY	3,541.36	3,541.36
1	711-38801	INLET TUBE ASSEMBLY ROUND STYLE 12" WITH HOLDING BRACKET	1,472.82	1,472.82
1	711-21703C...	FLOAT ARM ASSEMBLY 3-14 YARD UNITS (REPLACES 711-0238)	463.91	463.91
1	711-3356	HYD DOOR LOC ASSY.	2,621.40	2,621.40
1	711-14793D	TANK DOOR LOCK HYD ASSY-DOOR HOLDER	3,914.39	3,914.39
1	711-14426F4	DEB TANK FLUSHOUT ASSY-TAND NO AIR PURGE	1,278.80	1,278.80
1	711-12909	6" KNIFE VALVE ASSY VARIABLE A	2,729.59	2,729.59
1	711-0063	DOOR LOCK TEE HANDLE ASSY.	141.16	141.16
1	692-8007	DEBRIS TANK DECAL PKG	185.00	185.00

	Total
PRICES ARE SUBJECT TO CHANGE	FREIGHT NOT INCLUDED IN PRICING

CREDIT CARD PAYMENTS WILL NOT BE ACCEPTED ON INVOICES OVER $25,000
A 25% RESTOCK WILL BE CHARGED ON ALL RETURNED ITEMS.

Southern Sewer Equipment Sales

QUOTE

3409 Industrial 27th Street
Fort Pierce, FL 34946

1-800-782-4134

info@southernsewer.com

DATE
2/14/2024

NAME / ADDRESS	NUMBER	11133A
CITY OF COCOA ATTN: SUSAN (A/P) 65 STONE STREET COCOA, FLORIDA 32922 (email invs:a/p- no mail)		

SALESMAN	WRITTEN BY
JTB	
TERMS	PHONE #
NET 10 DAYS	

Ship To	
CITY OF COCOA 301 SHEARER BLVD COCOA, FL 32922	
ATTENTION	

PLEASE REFER TO QUOTE NUMBER WHEN PLACING ORDER

QTY	ITEM	DESCRIPTION	EACH	Total
1	PAINT	DEBRIS BODY ACCORDING TO SER # 09115994	6,425.00	6,425.00
45	LABOR	LABOR BY SOUTHERN SEWER: ESTIMATED @ THE ORLANDO SHOP.	150.00	6,750.00
	FREIGHT	SHIPPING	2,000.00	2,000.00
	NOTE	OTHER PARTS AND REPAIRS MAY BE FOUND WHEN DISMANTLED. IF OTHER NEEDED REPAIRS ARE FOUND ON YOUR EQUIPMENT, YOU WILL BE NOTIFIED AS SOON AS POSSIBLE. THIS IS NOT A COMPREHENSIVE LIST.	0.00	0.00

UPON REVIEWING THIS QUOTE, IF THERE ARE ANY QUESTIONS, PLEASE CONTACT US AT 1-800-782-4134.

	Total $73,109.77
PRICES ARE SUBJECT TO CHANGE	FREIGHT NOT INCLUDED IN PRICING

CREDIT CARD PAYMENTS WILL NOT BE ACCEPTED ON INVOICES OVER $25,000
A 25% RESTOCK WILL BE CHARGED ON ALL RETURNED ITEMS.

Container Systems & Equipment Co., Inc.
506 Bellevue Ave.
P.O. Box 249
Daytona Beach, FL 32115
(386) 253-5555

QUOTE

Page No.	Order No.	Order Date:	Customer No.
Page 1 of 1	0004665	2/21/2024	CCOCOA

Sold To:
CITY OF COCOA
301 SHEARER BLVD
COCOA, FL 32922

Ship To:
CITY OF COCOA
301 SHEARER BLVD
COCOA, FL 32922

DATE REQUESTED.	PURCHASE ORDER NO.	SHIP VIA	F.O.B.	TERMS
3/23/2024		ON SITE SERVICE	DAYTONA BEACH	CCNF
BUYER	**ORDER DATE**	**LOCATION**	**SALESPERSON**	**TERRITORY**
	2/21/2024	000	MIKE	

Item Key	Description	Qty Ordered	Unit Price	Gross Amount	Discount Amount	Extention Less Discount
506762..	BAH P/U HEAD SUB ASSY (**this	1	14,917.13	14,917.13	0.00	14,917.13
5010936..	MACHINED BLOWER HUB--600	1	319.00	319.00	0.00	319.00
11002..	SEALED BEARING/BLOWER	2	314.00	628.00	0.00	628.00
11108..	TAPER LOCK	1	69.00	69.00	0.00	69.00
11134..	BUSHING TAPER LOCK	1	159.00	159.00	0.00	159.00
11221..	BELT-BLOWER	1	682.00	682.00	0.00	682.00
505254L..	BLOWER HOUSING W LINER	0	0.00	0.00	0.00	0.00
CUSTOMER WILL SUPPLY						
500360..	SEAL ASSY--HOPPER	1	59.00	59.00	0.00	59.00
HOURS	SERVICE HOURS	10	0.00	0.00	0.00	0.00
SHIPPING	SHIPPING NOT DETERMINED	0	0.00	0.00	0.00	0.00
Cost can vary due to requirements to fulfill repairs						

Freight	Tax	SubTotal	Total
0.00	0.00	16,833.13	16,833.13

(A) General Consent Items:

1. Approve a Resolution to Waive Competitive Bidding, by way of Sole Source to Southern Sewers Inc of Orlando Florida for the repairs to the VACCON Jet - Vacuum Cleaner Truck System and authorize the City Manager to issue the purchase order. (23-314). (Public Works Director)

    - **Approved. Resolution to be executed and distributed as necessary.**

2. Approve a Budget Resolution, Amending the FY2023 Budget, BAF# 23-080-T in the amount of $231,146; Approve Change Order #1 for Elenis Contracting LLC/PO 80847 in the amount of $231,146; Approve Project Resolution Authorizing the City Manager to Issue Change Orders with a Total Project Contingency not to exceed $273,559 for the Dyal Ground Water Filter #3 Project (WS23DF). (23-321). (Utilities Director)

    - **Approved. Resolutions and Budget Amendment to be executed and distributed as necessary.**

3. Approve the First Amendment to Purchase Agreements with Atlantic Development of Cocoa, Inc., and Danus Utilities, Inc. under RFQ Q-20-18-COC; To Award RFQ Q-20-18-COC, General Contractor - Utility Systems, to Hinterland Group, Inc.; To Authorize the City Manager and City Attorney to Negotiate and Execute the Agreement for Utilities General Construction Contractor with Hinterland Group, Inc. (23-322). (Utilities Director)

    - **Amendments and Agreement to be executed and distributed as necessary.**

(B) Multi-Year Contracts:

4. Approve Participation in a Multi-Year Piggyback Agreement with Crom, LLC for Concrete Tank Repairs Utilizing the City of West Palm Beach Master Water Storage Tank Cleaning and Repair Services Agreement Amendment No. 1, Effective June 4, 2019 through June 3, 2024; To Authorize the City Manager to Execute the Piggyback Agreement and any Amendments and Renewals Under the Existing Contract; To Authorize the City Manager to Approve a Purchase Order to Crom, LLC in the Amount of $161,163.90. (23-281). (Utilities Director)

RESOLUTION NO. 2023-061

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, WAIVING THE COMPETITIVE BIDDING PROCESS AND SETTING FORTH THE BASIS OF THE CITY MANAGER'S RECOMMENDATION THEREOF BY EXHIBIT; PROVIDING FOR REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Section 2 of Article XIII of the City Charter of the City of Cocoa and Section 2-4 of the City Code of the City of Cocoa provides that competitive bidding is required for all purchases unless certain requirements are met for exceptions to the bidding requirement; and

WHEREAS, the City Manager has recommended that the competitive bidding requirement be waived for the purchase or public improvement described in Exhibit "A" attached to this resolution and by this reference incorporated herein; and

WHEREAS, the City Council has determined that competitive bidding for the purchase described in Exhibit "A" would not be in the City's best interest.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, that:

SECTION 1. The purchase described in Exhibit "A" is hereby approved and the competitive bidding requirement is hereby waived. The basis for the City Manager's recommendation that a competitive bidding procedure would not be in the City's best interest is attached to this resolution and by this reference incorporated herein.

SECTION 2. All resolutions or parts of resolutions in conflict herewith are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon adoption by the Cocoa City Council.

ADOPTED by the City Council of the City of Cocoa, Florida, in a Regular Meeting assembled on the 6th day of June, 2023.

Michael C. Blake

Michael C. Blake, Mayor

ATTEST:

CITY OF COCOA CORPORATE SEAL FLORIDA

Carie Shealy

Carie Shealy, MMC, City Clerk

EXHIBIT "A"

To Resolution No. 2023-061

The City Manager recommends that the competitive bidding requirement be waived, by reason of sole source, to perform services related to replacing the 12-yard debris tank on Storm Water 2014 VACCON MODEL# V311SHA SER.#09115994 Jet-Rod Vacuum unit. The work will be performed by Southern Sewer Inc, the sole provider for Sales, Service and Parts for VACCON Sewer and Storm Water equipment in the State of Florida.

Supporting documentation has been provided toward justification of the waiver, based on sole source, as an exception to the sealed bidding process; and based on this documentation, I support approval of this resolution.

Stockton Whitten
City Manager

Legislation Details (With Text)

File #:	24-093	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	2/20/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approve the FY 2023-2024 HOME Disbursement Agreement between the City of Cocoa and Brevard County in the amount of $310,488.38.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	2023-2024 HOME Disbursement Agreement.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 21, 2024
Agenda Date: February 27, 2024
Prepared By: Charlene Neuterman, Community Services Director
Through: Stockton Whitten, City Manager
Requested Action:
Approve the FY 2023-2024 HOME Disbursement Agreement between the City of Cocoa and Brevard County in the amount of $310,488.38.

BACKGROUND:

The City of Cocoa, in partnership with Brevard County and the cities of Melbourne, Palm Bay, and Titusville receives HOME Investment Partnership (HOME) funds through a consortium, called the Brevard County HOME Consortium. The allocation amount is determined by the U.S. Department of Housing and Urban Development (HUD) based on the following factors where the first and sixth factors are weighted 0.1; the other four factors are weighted 0.2:

1) Vacancy-adjusted rental units where the household head is at or below the poverty level.
2) Occupied rental units with at least one of four problems: a) overcrowding; b) incomplete kitchen facilities; c) incomplete plumbing; and d) high rent cost.
3) Rental units built before 1950 occupied by poor households.
4) Rental units described in factor 2 multiplied by the ratio of the cost producing housing for a jurisdiction divided by the national cost.
5) Number of families at or below poverty level.
6) Population of a jurisdiction multiplied by a net per capita income (pci).

Brevard County is responsible for the administration and compliance of regulations which govern

these funds, as lead entity for the HOME Consortium. The Brevard County HOME Consortium shall receive $1,297,107. A HOME Investment Partnership Program Disbursement Agreement between Brevard County and each of the four (4) cities is executed to ensure funds are administered in accordance with HOME regulations and allows Brevard County to reimburse the City for any funds expended during the fiscal year. The City's allocation is approximately 6.70% percent of the total HOME allocation the County receives.

Staff recommends Council approve the FY 2023-2024 Brevard County HOME Investment Partnership Program Disbursement Agreement between Brevard County and the City of Cocoa in the amount of $310,488.38 as follows:

FY 2023-2024 Allocation	$74,089.67
Carry Forward Balance	$236,398.71
*Program Income	$ 0
Total Contract Amount	**$310,488.38**

Staff will return to a later meeting to bring a Budget Amendment to true up the HOME Budget Account numbers for FY2024.

STRATEGIC PLAN CONNECTION:

Community Development - Improve residential development and rehabilitation programs to ensure diversity of housing options.

BUDGETARY IMPACT:

Budgeted N/A

PREVIOUS ACTION:

February 2023 - Council approved the FY2022-2023

RECOMMENDED MOTION:

Approve the FY 2023-2024 HOME Disbursement Agreement between the City of Cocoa and Brevard County in the amount of $310,488.38.

powered by Legistar™

2023-2024 HOME INVESTMENT PARTNERSHIPS PROGRAM DISBURSEMENT CONTRACT

BETWEEN BREVARD COUNTY AND THE CITY OF COCOA

THIS CONTRACT entered into this ____ day of _____ with an effective date of October 1, 2023 by and between Brevard County Board of County Commissioners, a political subdivision of the State of Florida, hereinafter referred to as "County," and the City of Cocoa, a municipality, hereinafter referred to as "City."

WHEREAS, the National Affordable Housing Act of 1990, as amended from time to time, authorized the HOME Investment Partnerships Program (hereinafter referred to as "HOME Program") to provide financial assistance through the U.S. Department of Housing and Urban Development (hereinafter referred to as "HUD") to local governments for the production of affordable housing; and

WHEREAS, Brevard County, the City of Cocoa, the City of Melbourne, the City of Titusville, and the City of Palm Bay, have entered into an agreement to form a Consortium to obtain funding through the HOME Program to provide affordable housing and subsequent monitoring for its residents; and

WHEREAS, the County, recognized by HUD as the Lead Entity of the Brevard County HOME Consortium, desires to establish a mechanism for the successful implementation of the HOME Program; and

WHEREAS, the City has requested funds from the Consortium for the benefit of the very low- and low-income citizens of Cocoa; and

WHEREAS, this Contract is authorized pursuant to the provisions of Section 163.01, Florida Statutes, and other applicable law, which authorized the exercise by agreement to two or more public agencies of any power common to them.

NOW, THEREFORE, in consideration of the mutual covenants, terms and conditions hereinafter set forth, the County and City mutually agree as follows:

SECTION I. DEFINITIONS:

A. "Approved Activities" means HUD approved activities as stated in the Brevard County HOME Consortium Consolidated Plan and Annual Action Plan.

B. "Consortium" means the Brevard County HOME Consortium.

C. "Consortium Approval" means the written approval of the HOME Consortium members.

D. "City" means the City of Cocoa.

E. "County" means the Board of County Commissioners of Brevard County, Florida, c/o Housing and Human Services Department.

F. "HUD" means the United States Department of Housing and Urban Development.

G. "HOME Administrator" means the Brevard County Housing and Human Services Department Director or his/her designee.

H. "HOME Program" means the United States Department of Housing and Urban Development's HOME Investment Partnerships Program.

I. "HOME Regulations" means 24 CFR Part 91 and 92 and supplemental, additional or successor provisions.

J. "Lead Entity" refers to the Board of County Commissioners of Brevard County, as required under 24 CFR Part 92.101(a)(ii).

K. "Program Income" means the gross income received by the participating jurisdiction, sub-recipient, or Community Housing Development Organization, which is directly generated from the use of HOME Program funds and matching contributions.

L. "Recaptured Funds" means HOME Program funds which are recouped by the participating jurisdiction, sub-recipient, or Community Housing Development Organization when HOME Program assisted housing does not comply with the affordability period required by 24 CFR 92.254(a)(4). The amount of recapture is determined in accordance with 24 CFR 92.254(a)(5)(ii). Any funds recouped in excess of the amount mandated by HOME Program regulations will constitute Program Income.

M. "Very Low and Low Income" means the definitions set by HUD for the HOME Program in 24 CFR Part 92.2.

SECTION II. PURPOSE: The purpose of this Contract is to state the covenants and conditions under which the County shall reimburse the City for eligible activities utilizing both HOME Program funds for Fiscal Year 2023-2024 and any carry-forward funds from previous fiscal years.

SECTION III. SCOPE OF SERVICES: The City shall carry out or cause to be carried out the following approved activities: Community Housing Development Organization, First Time Homebuyer Program, and Program Administration as described in the Annual Action Plan, as may be amended, which is incorporated herein by this reference. Such services shall be performed, except as otherwise specifically stated herein, by persons or instrumentalities solely under the dominion and control of the City. The City shall be responsible for all required HOME Program matching contributions, as outlined under 24 CFR Part 92.218, for approved activities carried out by the City. The City shall be responsible for administering a minimum 15% of this year's allotment, to be utilized by a Community Housing Development Organization, as outlined under 24 CFR 92 Subpart G.

SECTION IV. TERM OF CONTRACT: This Contract shall commence on October 1, 2023 and terminate on September 30, 2024, or on the date on which final completion of all projects funded through this Contract is established, whichever comes first. Notwithstanding the foregoing, all terms and conditions contained in Sections V. through XXV. of this Contract shall survive the termination of this Contract and shall remain in full force and effect throughout any required affordability period as defined in the funded projects.

SECTION V. USE OF FUNDS: The County shall reimburse the City an amount not to exceed $310,488.38 ($74,089.67 comprising of the current year's allocation, and $236,398.71 carry-forward funds. Any program income received throughout the year will be utilized in accordance with Section VI. Program Income). The parties recognize and agree that the funds shall be used for eligible expenses incurred while carrying out eligible HOME Program activities as outlined in Exhibit B. The schedule for committing and expending funds under this Contract are outlined in Exhibit C and D, respectively. Funds have up to two years to be encumbered and four years to be expended, except Community Housing Development Organization funds which have five years to be expended. The City shall encumber the funds, within two years, no later than September 30, 2026. Unless otherwise authorized by the Consortium, funds which remain un-encumbered shall be subject to Section XIV.

SECTION VI. PROGRAM INCOME:

A. All Program Income and recaptured funds generated by Approved Activities shall be retained, tracked and utilized for additional eligible activities by the City.

B. Program Income must be deposited internally within five business days. Program Income must be receipted in Integrated Disbursement and Information System within 30 days. Any available Program Income must be utilized prior to expending Entitlement Funds. A Program Income log must be submitted to the County on a quarterly basis (Exhibit G).

C. The County reserves the right to recapture and utilize Program Income funds, as defined in Section XIV, from member jurisdictions for non-performance or non-compliance. The funds will be used for other projects within the Consortium.

D. If the City is no longer a participant in the Brevard County HOME Consortium when the Program Income or Recaptured Funds are received, the proceeds shall be deposited in the Brevard County HOME Consortium Trust Fund and distributed proportionally among the remaining members of the Consortium; or in accordance with HOME Program regulations in place at that time.

SECTION VII. UNIFORM ADMINISTRATION REQUIREMENTS: The City shall comply with applicable uniform administrative requirements, as described in 24 CFR 92.505.

SECTION VIII. COMPLIANCE RULES, REGULATIONS AND LAWS: During the performance of this Contract, the City and County agree to comply with all applicable laws, rules, regulations and orders of their successors listed below which by reference are incorporated and made a part hereof. The City and County further agree to abide by all other applicable laws, rules, regulations and orders which are not referred to in this Contract under the HOME Program regulations.

SECTION IX. AFFIRMATIVE MARKETING POLICY: The City shall comply with the requirements of 24 CR 92.351. In the event the City does not have a policy in place, the County's Affirmative Marketing Policy attached hereto as Exhibit A shall be followed as it relates to marketing projects to income eligible households.

SECTION X. CONFLICT OF INTEREST: The City shall comply with the requirements of 24 CFR 92.356 relative to the Conflict of Interest provisions. The City, its officers, employees, agents, or consultants who exercise or have exercised any functions or responsibilities with respect to the project or who are in a position to participate in a decision making process or gain inside information with regard to any project, shall not obtain a financial interest or benefit from the project, or have an interest in any contract, subcontract or agreement with respect thereto, or the proceeds thereunder, either for themselves or those with whom they have family or business ties, during their tenure or for one year thereafter. The City, its officers, employees, agents, or consultants shall not occupy any HOME Program assisted unit provided for under this Contract. Any possible conflicting interest on the part of The City, its employees, or agents, shall be disclosed in writing to the County.

A. No employee, officer, agent of the City, or its sub-recipients shall participate in the selection, award, or administration of a contract supported by the HOME Program if a Conflict of Interest, either real or apparent, would be involved;

B. The City or sub-recipient employees, officers, and agents shall not accept gratuities, favors, or anything of monetary value from contractors, potential contractors, or parties to sub-agreements; and

C. Conflict of Interest violations will be subject to the terms of Section XX. Enforcement (Suspension/Termination).

SECTION XI. OTHER APPLICABLE LAWS, RULES AND REGULATIONS:

1. 24 CFR Part 92, as amended – The regulations governing the expenditure of HOME Investment Partnerships Program funds.

2. 24 CFR Part 58 – The regulations prescribing the Environmental Review procedure, including laws and procedures incorporated by reference.

3. National Flood Insurance Act of 1968.

4. 24 CFR Part 1 – The regulations promulgated pursuant to Title VI of the 1984 Civil Rights Act.

5. 24 CFR Part 107 – The regulations issued pursuant to Executive Orders 11063 which prohibits discrimination and promotes equal opportunity in housing.

6. Executive Order 11246 (and Revised Order Number 4), as amended by Executive Orders 11375 and 12086 – which establishes hiring goals for minorities and women on projects assisted with federal funds.

7. Title VII of the 1964 Civil Rights Act as amended by the Equal Employment Opportunity Act of 1972 – which prohibits discrimination in employment.

8. 24 CFR Part 135 – Regulations outlining requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended.

9. Age Discrimination Act of 1973.

10. 24 CFR Part 130 – Regulations which prohibit discrimination in employment in federally assisted construction contracts.

11. Contract Work – Hours and Safety Standards Act – where applicable.

12. Lead Based Paint Poisoning Prevention Act.

13. Section 504 of the Rehabilitation Act of 1973, as amended.

14. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

15. 29 CFR Parts 5 – Regulations which prescribe the payment of prevailing wages on federally assisted projects as mandated by the Davis-Bacon Act, where applicable.

16. Executive Order 11914 – Prohibits discrimination with respect to the handicapped in federally assisted projects.

17. Copeland Anti-Kickback Act.

18. 2 CFR, Part 200 which identifies allowable administrative costs and administrative requirements.

19. Florida Statutes, Chapter 112, Part III, code of Ethics for Public Officers and Employees.

20. Public Law 100-430 – The Fair Housing Amendments Act of 1988.

21. Section 109 of Public Law 100-202 – which restricts the awarding of public works contracts to firms from foreign countries with unfair trade practices.

22. HUD – required reports, circulars, and procedures.

23. 24 CFR Part 85 – the "common rule" containing fiscal and administrative requirements for grantees and sub-recipients which are local governments. This includes 2 CFR, Part 200.

24. 24 CFR Part 92.257 – concerning religious organizations, as applicable.

25. Section 92.504 – minimum standards of written contracts, as applicable. Including all project requirements, type of projects to be assisted, property standards, rents and recapture/resale provisions.

SECTION XII. FUND DISBURSEMENTS: The City shall not request reimbursement of HOME Program funds under this Contract until the funds are needed for the re-payment of eligible costs as described in 24 CFR 92.205. The requested amount shall not exceed the amount needed. Program income, interest earned, or loan repayments, hereinafter collectively referred to as ("recapture monies") as defined in 24 CFR 92.503 derived from any projects set forth in this Contract shall be accounted for by the City. Program Income received by the City from HOME Program eligible activities shall be deducted from HOME Program reimbursement & draw request (Exhibit F) submitted by the City for eligible costs. The remaining balance of eligible costs shall be requested from the County on the HOME Program reimbursement draw request (Exhibit F). HOME Program draw requests shall be submitted at least quarterly with supporting documentation (i.e. invoices for all requested disbursements; excluding administration). The final draw request shall be submitted no later than October 10, 2024.

SECTION XIII. REIMBURSEMENT:

A. This Contract and all rights and duties designated herein are contingent upon the release of HOME Program funds by HUD. Up to the limits of SECTION V. hereof, Brevard County shall reimburse the City for the services described in SECTION III., pending the City's commitment of HOME Program funds. All such work shall be performed by the City in accordance with applicable requirements of HUD and with all requirements of this Contract. Reimbursement shall be contingent thereupon.

1. Only Approved Activities, which have been set up in accordance with HUD established procedures, shall be reimbursed by the County.

2. The City shall be reimbursed by the County for allowable costs, in accordance with 24 CFR Part 92 and in accordance with SECTION V. of this Contract.

3. The City shall submit to the County during the performance hereof the following:

   a. A cumulative expenditure statement of all costs of the project(s), program income and recaptured funds, for the period from commencement through the end of the report period for which the reimbursement is being requested;
   b. This information shall be submitted in a format which meets the County's requirements for documentation used during audits and monitoring visits. Forms provided by the County shall be used when requested. Each request shall contain a cover sheet substantially equivalent to the *Payment Request Form* attached as Exhibit F.

4. Upon receipt of the above enumerated acceptable documentation, County shall initiate the reimbursement process. Upon determination by the HOME Administrator that the services or material have been invoiced pursuant to the terms of this Contract, the HOME

Administrator shall authorize the County Finance Department to make payment to the City in the amount it determines to be payable.

5. In the event a question or dispute arises regarding a request for reimbursement, the County shall withhold payment to the City for only that part of an invoice in dispute.

6. Pursuant to Section 218.74, Florida Statutes, the County Finance Department shall issue payment within 45 days after receipt of an acceptable invoice, and approval by the Housing and Human Services Department accepting the goods and/or services provided in accordance with the terms and conditions of this Contract.

7. If a payment request is disputed, the City shall provide adequate documentation within ten business days from receipt of a request which details the disputed charges.

8. Payment requests shall be made no less than quarterly, with the final draw for the federal fiscal year submitted no later than October 10, 2024. Payment requests submitted later than October 10, 2024 shall be credited to the following fiscal year.

B. The City shall take financial responsibility for any and all funds expended by the City on ineligible HOME Program activities, and shall reimburse the U.S. Department of Housing and Urban Development as mandated. The County shall take financial responsibility for any and all funds expended by the County on ineligible HOME Program activities.

SECTION XIV. RECAPTURE: In the event of noncompliance of this Contract, recapture of all or part of the allocation may be administered by the County. Any recaptured funds shall be utilized on eligible HOME Program activities within the County or another City within the Consortium. The City understands that HOME Program Community Housing Development Organization funds shall be reduced or recaptured by the federal government if not encumbered and/or expended as outlined under 24 CFR 92.500(d) and further detailed under Section V. Use of Funds.

SECTION XV. RECORDS AND REPORTS: Reimbursement is contingent upon the receipt and satisfactory evaluation by the Lead Entity, of the following reports:

A. **Project Set-Up Report:** The City shall initiate each proposed HOME Program activity by completing a Set-Up Report as required by HUD. The Set-Up Report shall be retained by the City and a copy submitted to the County with the initial reimbursement request.

B. **Reimbursement/Expenditure Report:** The City shall submit reimbursement requests along with an expenditure statement as outlined in SECTION XIII. of this Contract.

C. **Quarterly Progress Report:** The City shall complete and submit to the County Exhibit E, by the 15th day of January, April, July and October 2024.

D. **Project Completion Report:** At the time a project has been completed, the City shall complete a Project Completion Report and Quarterly Progress Report, within 120 days of the final draw down request for the project. The Completion Report shall be

retained by the City and a copy may be submitted to the County with the final reimbursement request.

E. **Substantial Amendments:** The City shall confirm the necessity of a substantial amendment with the County. If necessary, the City shall complete all applicable advertisement(s) and hearing(s). The City shall forward the substantial amendment documentation to the County for submission to the United Stated Department of Housing and Urban Development.

SECTION XVI. AUDITS AND INSPECTIONS: All records and contracts of whatever nature required by this Contract shall be available for audit, inspection or copying at any time during normal business hours and as often as the Lead Entity, the Consortium, HUD or Comptroller General of the United States, or other federal agency may deem necessary. Brevard County shall have the right to obtain and inspect any audit pertaining to the performance of this Contract made by any local, state or federal agency. The HOME Consortium shall have the right to inspect any of the County's records of whatever nature required by this Contract any time during normal business hours. The City shall retain all of its records and supporting documentation applicable to this Contract for five years after either the resolution of the final audit or the United Stated Department of Housing and Urban Development approval of the Close-out Report, whichever is later.

SECTION XVII. MONITORING: 2 CFR 200.93 defines a sub-recipient as a non-federal entity that receives a sub-award from a pass-through entity to carry out part of a Federal program. The City is required to monitor each sub-recipient to ensure that sub-awards are used for authorized purposes in compliance with Federal statutes, regulations, and the terms and conditions of the sub-award; and that sub-award performance goals are achieved. The City shall adhere to their existing monitoring policy which shall include the monitoring of sub-recipients annually throughout the affordability period. If applicable, updates should be provided to the County annually. Failure to monitor or insufficient sub-recipient monitoring may result in a finding of non-compliance. The lead entity will be required to monitor the project throughout its affordability period.

SECTION XVIII. SUBCONTRACTS: All contracts entered into by the City to carry out approved HOME Program activities shall be made in accordance with all applicable laws, rules and regulations stipulated in this Contract. Any additional work or services subcontracted hereunder shall be specified by written contract or agreement and shall be subject to each Section set forth in this Contract. The City must notify the County before they enter into an agreement with a sub-recipient, and the County must approve the Memorandum of Understanding before execution. Joint projects must be advertised and made available to all jurisdictions involved.

SECTION XIX. SCRUTINIZED COMPANIES:

a. The CONTRACTOR certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List. Pursuant to Section 287.135, Florida Statutes, the COUNTY may immediately terminate this Contract at its sole option if the CONTRACTOR or its subcontractors are found to have submitted a false certification; or if the CONTRACTOR, or its subcontractors are placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel during the term of this Contract.

b. If this Contract is for more than one million dollars, the CONTRACTOR further certifies that it and its subcontractors are also not on the Scrutinized Companies with Activities in Sudan, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or engaged with business operations in Cuba or Syria as identified in Section 287.135, Florida Statutes.
c. Pursuant to Section 287.135, Florida Statutes, the COUNTY may immediately terminate this Contract at its sole option if the CONTRACTOR, its affiliates, or its subcontractors are found to have submitted a false certification; or if the CONTRACTOR, its affiliates, or its subcontractors are placed on the Scrutinized Companies that Boycott the Scrutinized Companies with Activities in Sudan List, or Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged with business operations in Cuba or Syria during the term of the contract.
d. The CONTRACTOR agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under this Agreement.
e. As provided in Section 287.135(8), Florida Statutes, if federal law ceases to authorize these contracting prohibitions, then they shall become inoperative.

SECTION XX: EMPLOYMENT ELIGIBILITY VERIFICATION (E-VERIFY)

a. The CONTRACTOR shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the CONTRACTOR during the term of the contract. Upon Request, CONTRACTOR shall provide acceptable evidence of their enrollment. Acceptable evidence shall include, but not be limited to, a copy of the fully executed E-Verify Memorandum of Understanding for the business.
b. CONTRACTOR shall expressly require any subcontractors performing work or providing services pursuant to this Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the term of this Contract.
c. CONTRACTOR agrees to maintain records of its participation and compliance with the provisions of the E-Verify program, including participation by its subcontractors as provided above, and to make such records available to the COUNTY consistent with the terms of CONTRACTOR's enrollment in the program. This includes maintaining a copy of proof of CONTRACTOR's and any subcontractors' enrollment in the E-Verify Program.
d. Compliance with the terms of this section is made an express condition of this Contract and the COUNTY may treat a failure to comply as a material breach of this Contract.
e. A contractor who registers with and participates in the E-Verify program may not be barred or penalized under this section if, as a result of receiving inaccurate verification information from the E¬verify program, the contractor hires or employs a person who is not eligible for employment.
f. Nothing in this section may be construed to allow intentional discrimination of any class protected by law.

SECTION XXI. NON-ASSIGNABILITY: The City may not assign this Contract without prior written consent of the County.

SECTION XXII. ENFORCEMENT (SUSPENSION/TERMINATION):

A. In accordance with 24 CFR 85.43, suspension or termination may occur if the City materially fails to comply with any term of this Contract.

1. The City hereby agrees that the following events constitute a material failure sufficient to warrant suspension of payments:

a. Improper use of HOME Program funds;
b. Failure to commit or expend HOME Program funds according to this Contract (without written consent);
c. Failure to comply with the work, Program or terms of this Contract; specifically, the Approved Activities indicated in the Consolidated Plan and Annual Action Plan;
d. Failure to submit reports as required, including a favorable audit report, as well as documentation to complete HUD required reports, and
e. Intentional submittal of incorrect or incomplete reports in any material respect.

2. This Contract may also be terminated for convenience in accordance with 24 CFR 85.44, which provides for termination for mutual convenience or partial termination for specified reasons.

B. If payments are withheld, the Lead Entity shall specify in writing, the actions that shall be taken by the City as a condition precedent to resumption of payments provided that such notification shall specify a reasonable date not to exceed 20 days for compliance.

SECTION XXIII. INDEMNIFICATION: The City, to the extent allowed by law, shall at all times hereafter indemnify and hold harmless, the County, Brevard County HOME Consortium, its officers, agents and employees, against any and all claims, losses, liabilities, or expenditures of any kind including court costs, attorney's fees and expenses, occurring or resulting from any or all suits or damages of any kind resulting from injuries or damages sustained by any person or persons, corporation or property, by virtue of the performance of this Contract, except that the City shall not incur any liability for the negligence of the other parties named in this Section. Neither the County nor the City shall incur any liability for the negligence of the other.

The foregoing indemnification does not waive any defense of sovereign immunity and shall not waive the damage limits set forth in Section 768.28, Florida Statutes, nor shall it be construed to constitute an agreement by any party to indemnify any other party for such other party's negligent, willful, or intentional acts or omissions.

SECTION XXIV. INSURANCE: The City shall insure that either its insurance coverage or self-insurance program or the insurance coverage of its contracted agents is adequate and sufficient to cover the activities performed under this Contract, as the case may be as to the particular actions undertaken.

SECTION XXV. PROJECT PUBLICITY: Any news release, project sign, or other type of publicity pertaining to the project as stated herein, shall recognize the funding provided by HOME Program funds. The parties shall conduct affirmative marketing in accordance with 24 CFR Part 92.351.

SECTION XXVI. AMENDMENTS: This Contract may be amended through completion of an Amendment to Disbursement Contract form. The City shall be required to handle any amendment/adjustment according to their City policies, but shall acknowledge and accept execution of this document by the authorized County staff person.

SECTION XXVII. NOTICES: Formal notices under the terms of this Contract shall be sent, by U.S. mail, as follows:

Brevard County:
Ian Golden, Director
Housing and Human Services Department
2725 Judge Fran Jamieson Way, Bldg. B
Viera, Florida 32940

City of Cocoa:
Stockton Whitten
City Manager
65 Stone Street
Cocoa, Florida 32922

[Signature Page to Follow]

IN WITNESS WHEREOF, the parties have set their hand and seal the day and date first above written.

BOARD OF COUNTY COMMISSIONERS OF
BREVARD COUNTY, FLORIDA

_____
Frank Abbate, County Manager
(As approved by the Board on, _____).

Reviewed for legal form and content:

Rebecca 2/12/2024
L. Rebecca Behl-Hill, Assistant County Attorney

CITY OF COCOA

_____
Michael C. Blake, Mayor
(As approved by the Council on _____)

STATE OF FLORIDA
COUNTY OF BREVARD

ON THIS DAY personally appeared, by means of_____ physical presence or _____ online notarization, Michael C. Blake, known to me to be the person described in and who executed the foregoing instrument as the Mayor of the City of Cocoa, Florida for its act and deed, for the uses and purposes therein expressed.

NOTARY SEAL

_____
Notary Public - State of Florida
My Commission Expires: _____

Reviewed for legal form and content:

_____
Anthony A. Garganese, City Attorney

EXHIBIT A
AFFIRMATIVE MARKETING POLICY

The HOME Consortium will use affirmative housing marketing practices in soliciting owners/renters, determining eligibility and concluding all transactions. The Consortium members shall further affirmative marketing and fair housing in accordance with 24 CFR Part 92.351. Rental and HOME Program buyer projects containing five or more HOME Program assisted units shall comply with the Affirmative Marketing Policy described below.

1. The Consortium will require the owner to solicit applications for vacant units from persons in the housing market who are least likely to apply for the rehabilitated housing without benefit of special outreach efforts. In general, persons who are not of the race/ethnicity of the residents of the neighborhoods in which the rehabilitated building is located shall be considered those least likely to apply.

2. Owner's advertising vacant units shall include the equal housing opportunity logo or statement. Advertising media shall include contacting the newspapers, radio, television, brochures, leaflets, and/or include a sign in a window. In an effort to reach applicants least likely to apply, the owner may also use community organizations, places of worship, employment centers, fair housing groups, housing counseling agencies, social service centers or medical service centers as resources for this outreach.

3. The owner shall maintain a file containing all affirmative marketing efforts (i.e. copies of newspaper ads, memos of phone calls, copies of letters, etc.) to be available for inspection at least annually by the HOME Consortium.

4. The owner shall maintain a listing of all tenants residing in each unit at the time of the application submittal through the end of the affordability period.

5. The participating entity shall provide the HOME Consortium with an annual assessment of the affirmative marketing program of the development. The assessment shall include:

   a. Method used to inform the public and potential tenants about federal fair housing laws and affirmative marketing policy (i.e. the use of Equal Housing Opportunity logo type or slogan in print advertising);

   b. Method used to inform and solicit applications from persons in the housing market area who are not likely to apply without special outreach (i.e., use of community organizations, places of worship, employment centers, etc.); and

   c. Records describing actions taken by the participating entity and/or owner to affirmatively market units and records to assess the results of these actions.

6. The HOME Consortium will assess the affirmative marketing efforts of the owner by comparing predetermined occupancy goals to actual occupancy data that the owner is required to

maintain. Outreach efforts on the part of the owner will also be evaluated by reviewing marketing efforts.

7. The HOME Consortium will assess the efforts of the owners receiving loans during the rent-up and marketing of the units by use of a compliance certification or personal monitoring visits to the project at least annually.

8. Where an owner fails to follow the affirmative marketing requirements, corrective actions shall include extensive outreach efforts to appropriate contacts to achieve the occupancy goals or other sanctions which the HOME Consortium may deem necessary, up to and including the full repayment of the loan.

EXHIBIT B
BUDGET Fiscal Year 2023-2024

ACTIVITY	CURRENT ALLOCATION	CARRY FORWARD AMOUNT	TOTAL
Program Administration	$5,650.07	$885.53	$6,535.60
Community Housing Development Organization	$11,406.60	$12,746.57	$24,153.17
First Time Homebuyer	$57,033.00	$222,766.61	$279,799.61
Total HOME Funded Projects	$74,089.67	$236,398.71	$310,488.38

This Budget includes the City of Cocoa's Fiscal Year 23/24 HOME Program allocation of $74,089.67, $236,398.71 carry-forward funds for a total of $310,488.38. Any program income received throughout the year will be utilized in accordance with Section VI.

EXHIBIT C
ENCUMBRANCE SCHEDULE

ACTIVITY	Beginning Balance	1st Quarter Goal	2nd Quarter Goal	3rd Quarter Goal	4th Quarter Goal	Remaining Balance
HOME Admin	$6,535.60	$1,633.90	$1,633.90	$1,633.90	$1,633.90	$.0
Community Housing Development Organization Set- Aside	$24,153.17	$0	$0	$24,153.17	$0	$0
First Time Homebuyer	$279,799.61	$40,000.00	$40,000.00	$40,000.00	$40,000.00	$119,799.61

The encumbrance schedule is not based on total funding, but an estimated amount of funds to be encumbered this fiscal year.

EXHIBIT D
EXPENDITURE SCHEDULE

ACTIVITY	Beginning Balance	1st Quarter Goal	2nd Quarter Goal	3rd Quarter Goal	4th Quarter Goal	Remaining Balance
HOME Admin	$6,535.60	$1,633.90	$1,633.90	$1,633.90	$1,633.90	$0
Community Housing Development Organization Set- Aside	$24,153.17	$0	$0	$24,153.17	$0	$0
First Time Homebuyer	$279,799.61	$40,000.00	$40,000.00	$40,000.00	$40,000.00	$119,799.61

The expenditure schedule is not based on total funding, but estimated amount of funds to be expended this fiscal year.

EXHIBIT E
QUARTERLY PROGRESS REPORT

Period Covered: _____ to _____
Date Submitted: _____

A. **Project Information:**

Agency: City of Cocoa

Person Preparing the Report: _____

B. **Project Cost**

Activity	Estimated Expenditure	Actual Expenditure	% Expended	% Project Completion	Compliant with Encumbrance Schedule (Y/N)	Compliant with Expenditure Schedule (Y/N)

***If non-compliant with Encumbrance Schedule or Expenditure Schedule, please provide an explanation for corrective action.**

C. **Program Income (Attach your current program income log).**

Program Income/Recapture: _____
Source of Program Income/Recapture: _____

D. **Describe success or problems with meeting Goals (Attach Additional Sheets if Necessary):**

_____

_____

E. **Please specify total number of persons or households (as applicable) assisted/served this quarter.**

Households	Persons	Low to Moderate Income	Low Income	White/Non-Hispanic	American Indian or Alaskan Native	Hispanic	Asian Pacific Islander	Female Headed Household

EXHIBIT F
HOME PROGRAM REIMBURSEMENT & DRAW REQUEST

City of Cocoa

Date: _____

Request #: _____

Attached is documentation for _____ request number _____ for the reimbursement of HOME Program Expenditures described below:

Administrative Expenses:

Activity Year	Activity Number	Activity Description	Activity Address	Activity Funding Amount	Activity Total of Prior Draw	Activity Balance	Total Amount Expended	Program Income Used	Reimbursement Due from The County	Final Draw Y/N	Comments

Please provide a copy of the signed contract for each new subrecipient agreement.

_____

Signature/Date

EXHIBIT G
PROGRAM INCOME LOG

Period Covered: _____

Agency Name: _____

Balance Forward: _____

Date Received	Date Deposited	Amount Received	Amount Used	Amount Available

_____ _____

Signature **Date**

Legislation Details (With Text)

File #:	24-056	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	1/30/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	

Title: To Approve the Friday Road Utilities Extension Project - Construction Admin Services and the Osage/Angelica Street Utilities Extension Project - Construction Admin Services Scopes of Services and associated rates with DRMP, Inc for Engineering Services During Construction for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve A Resolution to Waive Competitive Bidding for the work; To Approve a 4th Amendment to the DRMP Continuing Services Agreement (RFQ No. 17-16-COC); To Approve as Multi-Year Contracts from FY2024 through FY2025. To Approve a Resolution Amending the FY24 Budget, BAF#24-059-ITF, in the Amount of $222,065 for Engineering Services (DRMP) and Replenishing Fund Balance (Fund 421) in the Amount of $1,223,744. (Utilities Director)

Sponsors:

Indexes:

Code sections:

Attachments:
Settlement Agreement.pdf
21-0540.002 Friday Road Utilites Project C.A. Services_020224.pdf
21-0540.002 Osage Angelica Utilites Project C.A. Services_020124.pdf
Cost Estimate 4-4-22.pdf
21-0540.002 DRMP Standard Rates Table C.A. Services_0211324.pdf
Bussen-Mayer 1st Amendment to RFQ No. 17-16-COC.pdf
2nd Amendment DRMP signed.pdf
02_14_2023_ 3rd Amendment DRMP signed.pdf
RFQ-17-16-COC AGREEMENT - Bussen-Mayer.pdf
Budget Resolution FY 2024- ADA Compliant.pdf
BAF 24-059-IFT-UT-DRMP Friday-Osage (2-27-24) Agenda 24-056.pdf
Tracking Sheet BAF#24-059-IFT.pdf
TO-DRMP 2024-26 $97,925.00 - UT-ENG.pdf
TO-DRMP 2024-25 $124,140.00 - UT-ENG.pdf
RFQ-17-16-COC Amendment # 4.pdf

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 30, 2024
Agenda Date: February 27, 2024
Prepared By: Katherine D. Ennis, P.E., Deputy Utilities Director
Through: John A. Walsh, P.E., Utilities Director

Requested Action:
To Approve the Friday Road Utilities Extension Project - Construction Admin Services and the Osage/Angelica Street Utilities Extension Project - Construction Admin Services Scopes of Services

and associated rates with DRMP, Inc for Engineering Services During Construction for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve A Resolution to Waive Competitive Bidding for the work; To Approve a 4th Amendment to the DRMP Continuing Services Agreement (RFQ No. 17-16-COC); To Approve as Multi-Year Contracts from FY2024 through FY2025. To Approve a Resolution Amending the FY24 Budget, BAF#24-059-ITF, in the Amount of $222,065 for Engineering Services (DRMP) and Replenishing Fund Balance (Fund 421) in the Amount of $1,223,744.

BACKGROUND:

The City of Cocoa and the Virgin Trains USA Florida, LLC executed a Settlement Implementation Agreement pursuant to two previous Development Agreements for the property located at I-95 and State Road 528. The City of Cocoa has agreed to design, permit and construct water, sewer and reclaim services to this property subject to certain terms for development.

In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allows for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.

The Friday Road Utilities Extension Project - Construction Admin Services (Friday Road Segment) and the Osage/Angelica Street Utilities Extension Project - Construction Admin Services Scopes of Work (Osage/Angelica Segment) will consist of providing construction administration, submittal review, inspections, RFI and Change Order assistance as-needed, review of testing results, as-builts, and permitting assistance for this project. The total cost for these services is $97,925.00 for the Friday Road Segment and $124,140.00 for the Osage/Angelica Segment.

At the time of the design, DRMP had an agreement with the City for Engineering Services for Conveyance Projects from RFQ 17-16COC with its time extension amendments, which expired May of 2023. However, the Agreement stayed in effect under the work under Task Order 2021-21 was completed in December of 2023.

Because DRMP was the original design firm for the projects, and has intimate knowledge of the projects, Staff is recommending one additional retroactive extension of the Agreement for the sole purpose of authorizing DRMP to perform Construction Administration Services for the Friday Road Utilities Extension Project and the Osage/Angelica Street Utilities Extension Project. Staff believes that DRMP is best suited to perform the construction administration services most efficiently because of DRMP's previous work completing the design. It has been common practice in Cocoa for the design professionals to also oversee the contractor charged with completing the construction of the project. As such, the Construction Administration Services performed by DRMP will be governed by the original terms and conditions of the Agreement awarded under RFQ 17-16COC along with the current task orders and fee schedule. No additional work unrelated to the Friday Road Utilities Extension Project and the Osage/Angelica Street Utilities Extension Project will be authorized under the Agreement.

STRATEGIC PLAN CONNECTION:

NA

BUDGETARY IMPACT:

Budgeted	Yes
If not budgeted, is amendment/transfer attached?	Yes - Adjustment to the Budget

BAF#24-059-ITF

Amount Requested	$97,925
Account Number	424-4055-536.63-00, WS24WP
Account Name	Infrastructure

Amount Requested	$124,140
Account Number	424-4055-536.63-00, WS24LC
Account Name	Infrastructure

Total Engineering Services: $222,065

Replenishing Fund Balance $1,223,744 See Tracking Sheet for more details.

Source of Funds: Water Impact Fees and Original Budget (WS21CG)

PREVIOUS ACTION:

February 9, 2021 - Approved Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; Approved a Resolution Amending the FY2021 Budget, BAF #21-045-T

RECOMMENDED MOTION:

To Approve the Friday Road Utilities Extension Project - Construction Admin Services and the Osage/Angelica Street Utilities Extension Project - Construction Admin Services Scopes of Services and associated rates with DRMP, Inc for Engineering Services During Construction for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; To Approve A Resolution to Waive Competitive Bidding for the work; To Approve a 4th Amendment to the DRMP Continuing Services Agreement (RFQ No. 17-16-COC); To Approve as Multi-Year Contracts from FY2024 through FY2025. To Approve a Resolution Amending the FY24 Budget, BAF#24-059-ITF, in the Amount of $222,065 for Engineering Services (DRMP) and Replenishing Fund Balance (Fund 421) in the Amount of $1,223,744.

City of Cocoa
65 Stone St
Cocoa FL 32922

21/17

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Anthony A. Garganese
City Attorney of Cocoa
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802

(407) 425-9566

CFN 2019226469, OR BK 8564 PAGE 2243,
Recorded 10/16/2019 at 03:17 PM, Scott Ellis, Clerk of
Courts, Brevard County
Pgs:21

FOR RECORDING DEPARTMENT USE ONLY

SETTLEMENT IMPLEMENTATION AGREEMENT

(Residential Subdivision and Lake Amenity Excavation)

THIS SETTLEMENT IMPLEMENTATION AGREEMENT ("Agreement") is made and executed this 10th day of July, 2019, by and between the **CITY OF COCOA,** a Florida Municipal Corporation ("City"), whose address is 65 Stone Street, Cocoa, Florida 32922, and **VIRGIN TRAINS USA FLORIDA, LLC**, a foreign limited liability company organized in the State of Delaware ("Developer"), whose address is 161 NW 6th Street, Suite 900 Miami, FL 33136.

WITNESSETH:

WHEREAS, Developer has entered into a contract to purchase approximately 246 acres, more or less, of real property located north of State Road 528 and east of Highway I-95, Cocoa, Florida, more particularly described in Section 3 and depicted in Section 8 of this Agreement ("Property"); and

WHEREAS, the Property is subject to that certain City of Cocoa/Florida Space Needle, LLC Preceding Development Agreement, dated August 24, 2004 ("Preceding Development Agreement"); and

WHEREAS, the Property is also subject to that certain Stipulated Settlement Agreement entered into in Brevard County v. City of Cocoa, Case No. 05-2005-018141, which was recorded on January 9, 2008 in Official Record Book 5837, Page 2226 of Brevard County, Florida ("Stipulated Settlement Agreement"); and

WHEREAS, Developer desires to proceed with the acquisition of the Property and permit and construct a low-density residential subdivision (approx. 320 units) on the Property consistent with the terms and conditions of the Preceding Development Agreement and the

Settlement Agreement and as more specifically required by this Settlement Implementation Agreement; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties mutually agree as follows:

1.0 Recitals. The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 Authority. This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act and in furtherance of implementing the terms and conditions of the Preceding Development Agreement and Stipulated Settlement Agreement.

3.0 The Property. The real property subject to this Agreement has tax parcel identification numbers of 24-35-10-00-3 and is legally described in **EXHIBIT "A"**, attached hereto and fully incorporated herein by this reference ("Property").

4.0 Condition Precedent - Acquisition of Property by Developer. Developer represents and warrants to the City that they have entered into a binding written contract to purchase the Property ("Purchase Agreement") and that the Developer intends to expeditiously pursue the completion of the closing on the Property upon the Effective Date of this Agreement. Based on this representation and warranty to the City, Developer further represents and warrants to the City that it is empowered to negotiate and enter into this Agreement. However, the acquisition of fee title to the Property by the Developer shall be a condition precedent to the Parties commitments and obligations set forth under this Agreement. As such, Developer shall keep the City fully apprised of the status of said closing and shall faithfully and expeditiously complete the closing within ninety (90) days of the Effective Date of this Agreement ('Closing Date"). At least ten (10) days prior to the Closing Date, the Developer shall provide the City Manager and City Attorney a complete copy of the title commitment (with copies of all supporting documents) for closing on the Property so the Parties can determine whether the title commitment including the items listed on Schedule B II Exceptions causes any impediment to the completion of the subdivision of the property as depicted on the Concept Plan described in Section 8.0 of this Agreement or the excavation of the lake amenity described in the Section 10.0 of this Agreement. The City in its reasonable and sole discretion may declare any such impediment as a default and Developer shall be afforded an opportunity to cure said default under Section 29.0 of this Agreement. If Developer fails to cure said default, the City Manager, in his sole discretion and by written notice, shall have the right to terminate this Agreement. Further, if Developer fails to complete the closing by the Closing Date, the City Manager shall have the right, in his sole discretion and by written notice, to either extend the Closing Date for a reasonable time period not to exceed one (1) year to allow Developer to complete the closing, or terminate this Agreement.

5.0 Project Description and Requirements. Developer shall design, permit and construct one of the premier, upscale low-density residential subdivisions in the City of Cocoa. The subdivision shall be created and constructed in a single phase and consist of approximately

320 residential lots and homes with a minimum living area under air of one thousand five hundred (1,500) square feet and an average living area under air of one thousand eight hundred (1,800) square feet, private streets, ample private recreational common area green space and amenities, including a private Amenity Center and a proposed 38-acre, more or less, amenity lake (the "Project"). The Developer may construct the homes in accordance with a phasing plan approved by the City. The Project shall have a homeowner's association, which shall be responsible for maintaining the common areas in perpetuity. The Project shall be constructed in accordance with the requirements set forth in this Agreement.

6.0 Zoning Application. Developer acknowledges that the current City Comprehensive Plan, Future Land Use Map designation on the Property is very low-density residential with several areas subject to a conservation overlay designation. Developer agrees to comply with the current Future Land Use Map designation. However, the Property does not currently have a City zoning designation. Therefore, in furtherance of compliance with the City's Comprehensive Plan, Developer agrees to seek a City zoning designation for the Property of RU-1-7, Single-Family Residential District, which is consistent with the very low-density residential Future Land Use Map designation. Within thirty (30) days of the Closing Date, , unless an extension is granted by the City Manager for good cause, Developer agrees to submit a complete rezoning application with the City to request approval of a RU-1-7 zoning designation. The City and Developer will process the application through completion within one hundred eighty (180) days of the date that a complete application has been submitted to the City, unless an extension is required and granted by the City Council. The City agrees to process said application consistent with the requirements of the City Code and law. Nothing contained herein shall be construed or interpreted as requiring the City Council to approve said application. The City Council will consider and act upon said application at its discretion at appropriate public hearings pursuant to the requirements of law. If the RU-1-7 application is denied by the City Council, the Developer shall submit and process a different rezoning application consistent with the very-low density residential Future Land Use Map designation until such time as the City Council approves an acceptable City zoning designation for the Property. Should a different zoning district be approved, Developer acknowledges that a modification to this Agreement may be required to comply with such approved district's dimensional and/or open space requirements.

7.0 Location of Ingress/Egress Points – North and Southeast Corner of Project. Pursuant to the Stipulated Settlement Agreement, the Project shall have two public road access points. The northern access point shall be at the existing southern terminus of Bahia Street. However, Brevard County is required to choose between two options for public road access at the southeastern corner of the Project: (1) Osage/Angelica Street or (2) south along the 100-foot wide drainage canal right-of-way connecting to Grissom Road. The Parties acknowledge that the County's choice will result in a small variation to the subdivision layout of several of the residential lots proposed within the southeast corner of the Project. To account for this variation, the Parties have agreed to two alternative Conceptual Development Plans for the Project, taking into account both options as more specifically set forth in Section 8.0 of this Agreement. Upon the Effective Date of this Agreement, the Parties agree to submit the two alternative Conceptual Development Plans to the County and formally request, in writing, that

the County choose one of the public road access options for the southeastern corner of the Project as required by the Stipulated Settlement Agreement. The Parties also agree to cooperate with each other in promptly obtaining the County's decision on the chosen public road access option at the southeastern corner of the Project. In addition, until the selection is made by the County, the Parties cannot estimate with reasonable certainty the potential cost to the Developer of the public road access to the Property, including the cost of any required land (especially if the drainage canal route is selected), road improvements, drainage, signalization at the Grissom Parkway, lighting or other special roadway requirement. As such, upon selection by the County, the Developer shall work with the County to promptly ascertain, in writing, the estimated cost of public road access, and provide a written copy of the same to the City, no later than six (6) months from the date of the County's selection. If the County's selected option results in unreasonably excessive estimated roadway costs on the Developer that are not economically feasible for the Project to financially support, using reasonable and customary home building industry standards relative to the density of the Project, the Developer may request, in writing, to meet with the City Manager to discuss and negotiate an alternative Concept Plan and any necessary amendments to this Agreement that make the Project economically feasible by reasonable and customary home building industry standards. Any alternative Concept Plan and amendments to this Agreement shall require City Council approval.

8.0 Two Alternative Conceptual Development Plans; Subdivision and Site Plan Approval.

8.1 Depending on the public road access point chosen by the County at the southeastern corner of the Project, the Project shall be substantially developed in accordance with one of the applicable alternative conceptual development plans which are attached hereto as **EXHIBIT "B"** and incorporated herein by this reference (**"Concept Plan"**). The Concept Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Concept Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. Developer shall have the obligation to further submit and obtain the City's approval of a final subdivision plat, final site plan and final engineering plans (**"Final Plans"**) consistent with the Concept Plan in all material respects and in compliance with the City Code and the amenities schedule required by Section 11.0 of this Agreement. Developer acknowledges and agrees that the Concept Plan was not created with specific surveyed dimensions and that during the Final Plans process such dimensions shall be surveyed, duly engineered, and provided to the City for consideration under applicable City Codes. The Concept Plan shall be subject to reasonable adjustments at the Final Plans phase in order to bring the Project into full compliance with the City Code, and as a result, the exact location, layout and dimensions of the lots, common areas, buildings, landscaping, entrances, utilities, parking and other site improvements may vary slightly between Concept Plan approval and approval of the Final Plans. Further, additional lots greater than the number of lots depicted on the Concept Plan may be approved at the City's discretion, provided the additional lots do not reduce the proposed amount of open space and recreational areas depicted on the Concept Plan. These changes shall be allowed as long as the changes are consistent with the development standards noted in this Agreement and preserve the

general character of the development shown on the Concept Plan. The City will not unreasonably withhold approval of the Final Plans and amenities schedule.

8.2 The Parties agree that time is of the essence to complete the Project. Therefore, if the County selects public road access on Osage/Angelica Street under the Stipulated Settlement Agreement, Developer shall have eighteen (18) months after said selection to obtain Final approval of the Final Plans unless otherwise agreed by the City Council. However, if the County selects public road access south along the 100 foot-wide drainage canal right-of-way, Developer shall have eighteen (18) months from the date that the County confirms to the Parties that it has received an order of taking or otherwise acquired the necessary lands or interests to allow the public road access to obtain Final approval of the Final Plans unless otherwise agreed to by the City Council.

9.0 Public Utilities; Project Completion and Reimbursement Obligations. Pursuant to Section 4.8 of the Preceding Development Agreement, the Developer has elected not to design, permit and construct the extension of the water, sewer and reclaimed utilities to the Property ("Utilities"). Therefore, the City will design, permit and construct the extension of the Utilities up to the point(s) of connection at the boundary of the Property as determined and deemed appropriate by the City, subject to the following terms and conditions:

(1) The City will design, permit, construct and make the Utilities available to the Property no later than the date that the Developer has: (a) completed and received a final completion certificate (e.g., evidence of final written approval) from the City for all on-site infrastructure to support the Project including, but not limited to, streets, street lights, on-site utilities, sidewalks, and stormwater facilities; (b) been issued and received building permits for at least ten (10) building permits approved by the City for residential units; and (c) commenced vertical construction of the ten residential homes on the Property ("Utility Completion Date"). Prior to commencing construction of the Utilities, the City shall provide the Developer a written estimate of the Total City Utility Expenses described in Subsection (2) below.

(2) Developer shall complete construction of the Project by obtaining all required certificates of occupancies within five (5) years from the Utility Completion Date ("Project Completion Obligation"). In furtherance of the Project Completion Obligation, within ninety (90) days from the date that the City completes the Utilities, the City will deliver written notice to the Developer documenting the expenses incurred by the City to design, permit and construct the extension of the Utilities to the Property ("Total City Utility Expenses"). Within sixty (60) days of receipt of said written notice, the Developer, at its expense, shall secure the reimbursement of the Total City Utility Expenses in the event the Developer fails to fully satisfy the Project Completion Obligation by providing the City with an irrevocable stand-by letter of credit in the amount of such expenses incurred by the City. The letter of credit shall be in favor of the City and shall be issued by a bank mutually agreed to by the Parties. The letter of credit shall be in a form acceptable to the City to effectuate the reimbursement, if required due to Developer's failure to make reimbursement pursuant to Subsection (3) below. The letter of credit shall be subject to being drawn upon by the City in the event that the Developer fails to fully satisfy the Project Completion Obligation. The letter of credit shall remain in effect until

such time the City provides written notice to the Developer that they have fully satisfied the Project Completion Obligation or the City receives reimbursement pursuant to Subsection (3) below, whichever occurs sooner. However, the City agrees that Developer may proportionately reduce the value of the letter of credit by the number of certificates of occupancies granted by the City for the homes constructed in the Project. Said reduction shall occur only at twenty percent (20%) intervals of construction. The letter of credit may also be reduced on an annual basis by the amount of any home rule special assessment collected on the Property pursuant to Subsection (4) below. Any reduction of the letter of credit shall require prior written notice to the City and confirmation by the City the reduction amount is accurate.

(3) Upon failure to fully satisfy the Project Completion Obligation, the City may provide Developer written notice declaring Developer in default under this Agreement and demanding full reimbursement, within thirty (30) days, of the Total City Utility Expenses, less any credits as a result of any home rule assessments paid pursuant to Subsection (4) below, if any. If Developer fails to timely make such payment, the City shall have the right to draw upon the letter of credit required by Subsection (2) above.

(4) The City shall have the right at any time to adopt and impose a home rule special assessment on the Property, and the lots created thereon, to recover the Total City Utility Expenses. In furtherance of said right, the Developer hereby voluntarily and irrevocably consents to said assessment and that the extension of Utilities constitutes a special benefit to the Property. Developer further agrees not to directly or indirectly contest or challenge such special assessment. The assessment, if imposed by the City, will be collected and enforced in accordance with the Uniform Method of Collection and Enforcement of Non-Ad Valorem Special Assessments under Florida law. In the event that a special assessment is imposed and the City collects the full amount of the Total City Utility Expenses by assessment, the City agrees to release the letter of credit obligation in full if still in effect pursuant to Subsection (2) above.

(5) Within one hundred eighty (180) days of the County's selection of the preferred public road access described in Section 7.0, the Developer shall convey a perpetual public utilities easement upon, over and under the Property that allows the City to connect the future public utilities constructed on the Property with the Barrera Property (approx. 267 acres) located south of State Road 528. It is anticipated that the easement will be a minimum of forty (40) feet and a maximum of sixty (60) feet in width and be located generally around the area where the Developer intends to construct the conveyance system under and over State Road 528 to support the excavation of the proposed lake pursuant to Section 10.0 of this Agreement. In conjunction with the Developer's construction of the conveyance system, Developer shall fully cooperate with the City to coordinate and assist the City's plans and efforts to permit, construct and install future public utilities under State Road 528 including the installation of one or more casings, conduits or culverts to support future water, sewer and reclaimed utilities. The Parties agree that the Developer's coordination, cooperation and assistance does not constitute permission, or the requirement to gain permission, for the City to place the casing, conduit or culverts in the said area which is not owned by the Developer. The Parties acknowledge that the property is not owned by the Developer and that the City must gain the necessary permissions and permits from

the property owner (Florida Department of Transportation) and any other required regulatory entity to perform the required utility work. However, the final location and required width of the easement area shall be required to satisfy the City's reasonable and necessary future utilities needs which shall be determined by the City's Utilities Director. The easement shall be in form approved by the City Attorney. During the construction of the required utility work by the City, the City agrees to coordinate its utility activities in a manner that does not interfere with the excavation operation or the construction and operation of the proposed future Brightline rail line.

(6) The Developer shall be responsible for the design, permitting and construction of all on-site utility infrastructure required to serve the Property including, but not limited to water, sewer, reclaimed stormwater pipes, sewer lift stations and pumps, electric lines and equipment, cable lines and equipment, phone lines and equipment, gas lines and equipment and other utility pipes, lines and equipment. Should City utility policy require that certain on-site water, sewer, reclaimed or stormwater utility infrastructure be conveyed to the City upon completion by the Developer, said conveyance of any such infrastructure shall be by written bill of sale along with any warranties and maintenance bonds or letters of credit.

(7) In the event the Developer fails to convey the utility easement required by Subsection (5) above, or obtain approval of the Final Plans required by Section 8.0 of this Agreement within the time schedule set forth in Section 8.2, or if the City declares, in writing, that Developer failed to complete the lake amenity as required by Section 10.0 either upon completion of the excavation or abandonment, the City's commitment to design, permit and construct the Utilities to the Property shall terminate and thereafter, the Developer, at Developer's sole expense, shall be fully responsible for the design, permitting and construction of the Utilities to the Property in accordance with City technical specifications and standards.

10.0 Permitting and Construction of Lake Amenity. Upon the Effective Date of this Agreement, the Developer shall be allowed to submit an application with the City for an excavation permit for purposes of constructing the proposed 38-acre, more or less, lake amenity as depicted on the Conceptual Plans. The excavation permit shall be subject to Chapter 12.5 of the City Code and shall be in the form of an Excavation Permit Agreement executed by the Parties. The Excavation Permit Agreement shall be subject to the terms and conditions of this Agreement, and any other applicable state and federal laws. The commencement of excavation shall be contingent upon the Developer closing on the Property and the City's determination that the title commitment does not identify any impediment to the completion of the subdivision of the Property or the excavation of the lake amenity as provided by Section 4.0 of this Agreement. The excavation site and Property shall be maintained and secured by the Developer in a safe and sanitary condition at all times in compliance with applicable laws, administrative rules, or City Code. Notwithstanding any other terms and conditions in this Agreement and the Excavation Permit Agreement, Developer, upon completion of the excavation, shall be required to complete the lake amenity in anticipation of, or in conjunction with, the residential subdivision required by this Agreement. Should the excavation be completed before the Final Plans are approved by the City, Developer shall be required to submit, for the City's approval, plans and specifications necessary for the Developer to complete the lake amenity including, but not limited to, bank

stabilization, seeding and final contouring and shaping of the lake to support the future subdivision and accommodate the future amenities required by amenity schedule approved by the City during Final Plans approval, including landscaping, walking trails, usable open space and other pedestrian friendly recreational and beautification features. The Excavation Permit Agreement shall be in a form approved by the City Manager and City Attorney, and the City Manager is authorized to execute the Excavation Permit Agreement on behalf of the City. In order to reduce and mitigate against any potential negative impacts of the excavation on surrounding properties, the Developer agrees to employ an excavation strategy that requires the excavation materials to be removed from the Property via a conveyance system running above or underneath State Road 528 for use by the future proposed Brightline railroad route along the State Road 528 corridor. Developer has represented to the City that they are pursuing a permit from the Florida Department of Transportation to employ this excavation strategy subject to the City permitting the excavation. However, during the excavation, access to and from the Property by excavation workers and to receive delivery of equipment and materials for the excavation shall be allowed via the existing public road network as specified in the excavation permit agreement. Notwithstanding the foregoing, should Developer choose to forego or substantially reduce the scope and size of the excavation, Developer acknowledges that a modification to this Agreement may be required by the City to at least modify the Concept Plan to incorporate more upland buildable areas and recreational space.

11.0 Other Project Recreational Amenities and Enhancements. As a condition of approval of the Final Plans, Developer shall design, permit and construct, at its own expense, the following minimum schedule of Project amenities and enhancements in scope and scale to adequately support the number of residential lots required for the Project:

(1) Central Amenity Center (community clubhouse) with a feature pool, open space area with a community pavilion (picnic tables and grills) along with a state-of-the-art modern tot-lot and playground. The City prefers that the tot-lot and playground be adequately covered from sun exposure by a playground UV rated canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(2) Multi-use sports field.

(3) Multipurpose courts (convertible for volleyball, basketball, pickleball and/or tennis).

(4) Smaller common open space lots and areas throughout the community that include small playgrounds and areas with benches. The City prefers that the playground and bench areas be adequately covered from sun exposure by a UV rated playground or other canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(5) Connected multipurpose trail throughout the community that connects to all recreational common open spaces including the existing lakes and lake amenity.

(6) A streetscape design deemed acceptable by the City, which emphasizes sidewalks, connectivity within the community, tree-lined streets, and decorative street lights to add appeal and security and decorative signage.
(7) Decorative and landscaped entrance features to the Project deemed acceptable to the City which may include a restricted gated entry feature.
(8) The City prefers that the residential driveways shall be constructed of stone or brick pavers, or stamped and stained concrete. The Developer shall seriously evaluate and consider providing such driveways during the approval of Final Plans.(9) All utilities constructed on the Property including, but not limited to, electric, water, sewer, reclaimed water, cable, phone, fiber optics, natural gas and other similar kinds of utilities to service the Property shall be constructed underground unless otherwise necessary to be above ground and approved by the City. Each lot and all common landscaped areas shall be equipped with in-ground reclaimed water irrigation systems to maximize the use of the City's reclaimed water service.
(10) The Project shall incorporate the use of energy efficient lighting systems, insulation and ENERGY STAR rated windows, low-flow water fixtures, modern heat pumps, energy efficient HVAC systems, and optional roof top solar panels.

Developer may also propose additional amenities for the City's consideration and approval. All Project amenities and enhancements shall be completed and finally accepted by the City in accordance with the written amenities construction schedule approved by the City in conjunction with the approval of the Final Plans. Upon approval, the written amenities construction schedule shall automatically be deemed incorporated within and made a part of this Agreement. All Project amenities and enhancements shall be maintained in perpetuity by the homeowner's association required to be created by this Agreement.

12.0 Building Elevations and Floor Plans. As condition of approval of the Final Plans, the Developer shall submit to the City for final approval building elevations and related floor plans for the proposed homes and Central Amenity Center (community clubhouse) to be constructed on the Property. Upon approval by the City, the building elevations and related floor plans shall be deemed incorporated herein by this reference and said buildings shall be constructed substantially in accordance with the approved building elevations and floor plans. Further, other aspects of the building façade and roof lines, color scheme, and architectural features depicted on the building may have to be adjusted during the City's final review and administrative approval procedures to issue a building permit. The design of the homes and Central Amenity Center (community clubhouse) shall create one aesthetically pleasing and unified Project.

13.0 Homeowner's Association. In conjunction with the approval of the final subdivision for the Project, the Developer shall create a mandatory homeowner's association to govern the Project in accordance with Chapter 720, Florida Statutes. The association shall also be governed by the covenants and restrictions created and recorded against the Property by the Developer as required by this Agreement. A copy of the association's articles of incorporation, by-laws and recorded covenants and restrictions shall be provided to the City prior to the

approval of the final subdivision. The homeowner's association shall be responsible for the perpetual maintenance and operation of all common areas and amenities constructed for the Project, shall govern the Project in accordance with the requirements of Florida law including the recorded covenants and restrictions and by-laws of the association, have the power to levy assessments and collect HOA fees, which are used to pay for the maintenance of the community common areas and any other designated areas that are detailed in the covenants and deeds applicable to the Project.

14.0 Model Homes. The City agrees to allow the Developer or Developer's chosen homebuilder(s) (hereinafter referred to in this Section as "Builder") for the Project to construct both a sales office and up to four (4) model homes to be used for the customary temporary marketing and sales activities of the Builder. The Builder shall have the right to utilize two garages in two model home units as the temporary sales office. The City represents that such marketing and sales activities shall be permitted through buildout of the Project. The City agrees to permit early construction of the model homes prior to or after plat approval, provided that, prior to construction of the model homes, stabilized access to the model home lots and adequate means of fire protection from a City-approved source of water are completed and the following conditions, which are deemed acceptable to Builder, are adhered to:

(a) The model homes shall remain under Builder's ownership and control until such time as a final certificate of occupancy for each model home unit is issued under the conditions set forth below. In other words, the Builder shall not contract for sale, sell, or lease any of the individual model home units until such time as the City issues a final certification of occupancy for each model home unit.

(b) The model homes shall be constructed on existing or proposed lots approved by the City, and any associated parking, pedestrian activity and other activities conducted by sales staff or the general public shall be adequately segregated from construction activities to ensure safety. Parking for the model homes shall be provided in a temporary parking lot to be located in an area approved by the City, which may consist of a mulch surface. Prior to a final certificate of occupancy being issued on the last remaining model home, the mulch surface shall be removed and the area shall either be prepared for home construction, open space or recreational amenity or seeded.

(c) The model sales office shall comply with all applicable state and city regulations regarding accessibility. In addition, Builder shall provide a minimal level of access to all model homes for potential homebuyers with disabilities by providing physical access (via ramp or lift) to the primary level each model home and making photographs of other levels within each home available to the customer.

(d) Prior to construction, the model homes shall be duly permitted by the City in accordance with the City's Code. As part of the building permit application, the Builder shall submit, along with all construction plans for the units, a duly certified boundary survey which shall depict the location and legal description of each individual model lot. The Builder acknowledges and agrees that this legal description is intended to coincide with the eventual

location of the lots as depicted and legally described on the final plat. The Builder shall assume full and complete responsibility in the event that said legal descriptions do not conform to the lot lines required by the City in the final plat. The Builder fully understands the construction of model homes before final plat is approved by the City may pose a risk to the Builder if the approved plat is not consistent with the layout of model home on the subject property, and that such risk may require modification or removal of the model home based on the approved plat before a final certificate of occupancy can be issued for the model home. The Builder agrees to defend, indemnify, and hold harmless the City from and against any and all damages, losses or claims arising from the layout and construction of the model home under this Agreement prior to preliminary and final plat approval as provided further in Section 32.0 of this Agreement.

(e) At such time as the City Building Official completes and approves a final inspection of the model homes, the City will issue a temporary certificate of occupancy. Said temporary certificate of occupancy shall be issued for each model home as a whole. Occupancy of the model home units shall be limited to the sales and marketing efforts for the Project until a final certificate of occupancy is issued for such model home units. It is intended that the model homes can be shown by sales staff to prospective buyers as long as the Building Official has issued the temporary certificate of occupancy and the model is not staffed continuously.

(f) Following completion of all required plat improvements, at the request of the Builder or at such time as the Project development is completed, whichever occurs sooner, the model home units shall be converted into permanent residential units and the City shall issue final certificates of occupancy for each model home unit, provided, that the City Building Official determines that such units are suitable for permanent residential occupancy and in compliance with the City Codes.

Nothing in this Section shall cause to limit the number of inventory homes (pre-sale, spec homes) that may be constructed on the Property. Violation of this Section will also constitute a violation of the City Code of Ordinances, and the provisions of this Section may also be enforced as provided therein. Any Builder desiring to construct a model home pursuant to this Section, other than Developer, shall be provided a copy of this Section by the Developer if Builder is not the owner of the subject property on which the model home will be constructed and shall automatically be deemed to have agreed to the terms and conditions herein as a condition of the issuance of a building permit by the City even if they are not the owner or have not consented, in writing, to the term and conditions of this Section.

15.0 Representations of the Parties. The City and Developer hereby each represent and warrant to the other that it has the power and authority to execute, deliver and perform the terms and provisions of this Agreement and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the City and Developer, constitute a legal, valid and binding obligation enforceable against the parties hereto. Upon acquisition of the Property by the Developer and the recording of this Agreement in the Public Records of Brevard County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developer represents that it has voluntarily and willfully executed

this Agreement for purposes of binding himself and the Property to the terms and conditions set forth in this Agreement.

16.0 Successors and Assigns. This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developer and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

17.0 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

18.0 Amendments. This Agreement shall not be modified or amended except by written agreement duly executed by both parties hereto (or their successors or assigns) and approved by the City Council.

19.0 Entire Agreement; Exhibits; Conflicts. This Agreement, the Preceding Agreement and Stipulated Settlement Agreement and all attached exhibits thereto supersede any other agreement, oral or written, regarding the development of the Property and contain the entire agreement between the City and Developer as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference. To the extent that a conflict exists between provisions of this Agreement and the Preceding Agreement, the conflicting provisions of this Agreement shall apply. However, to the extent a conflict exists between the provisions of this Agreement and the Stipulated Settlement Agreement, the conflicting provisions of the Stipulated Settlement Agreement shall apply.

20.0 Severability. If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

21.0 Effective Date. This Agreement shall become effective upon approval by the City Council and execution of this Agreement by both parties hereto.

22.0 Recordation. Upon full execution by the Parties and the closing required by Section 4.0 of this Agreement, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City.

23.0 Relationship of the Parties. The relationship of the Parties to this Agreement is contractual and Developer and any Builder described in Section 13.0 are independent contractors and not an agent of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties or any such Builder, and neither party nor Builder is authorized to, nor shall either party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

24.0 Sovereign Immunity. Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00).

25.0 City's Police Power. Developer agrees and acknowledges that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

26.0 Interpretation. The parties hereby agree and acknowledge that they have both participated equally in the drafting of this Agreement and no party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the parties.

27.0 Third-Party Rights. This Agreement is not a third-party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third party.

28.0 Specific Performance. Strict compliance shall be required with each and every provision of this Agreement. The Parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity.

29.0 Attorney's Fees. In connection with any arbitration or litigation arising out of this Agreement, each party shall be responsible for their own attorney's fees and costs.

30.0 Development Permits. Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the Effective Date of this Agreement. The failure of this Agreement to address any particular City, County, State and/or Federal permit, condition, term or restriction shall not relieve Developer or the City of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold, suspend or terminate any and all certificates of occupancy for any building, trailer, structure or unit if Developer is in breach of any term and condition of this Agreement.

31.0 Default. Failure by either party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, an action for specific performance and/or injunctive relief. Prior to any party filing any action or exercising any remedy or right expressly provided in this Agreement as a result of a default

under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting party shall be provided a forty-five (45) day (or such other time mutually agreed to in writing by the Parties) opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action.

32.0 Termination. Except as expressly provided in this Agreement, this Agreement may only be terminated by mutual written consent of the Parties. If the Parties terminate this Agreement and the Agreement was recorded in the Official Records of Brevard County, the City shall record a notice of termination against the Property in the Official Records of Brevard County, Florida.

33.0 Indemnification and Hold Harmless. Developer shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, in consideration of the rights and benefits afforded to and accepted by the Developer hereunder, Developer hereby agrees to indemnify, release, and hold harmless the City and its councilmembers, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developer and Developer's contractor's and subcontractor's performance of design, permit and construction activities in furtherance of constructing the Project under this Agreement and the operation and maintenance of the Project thereafter. This indemnification shall survive the termination of this Agreement.

34.0 Force Majeure. The Parties agree that in the event that the failure by either party to accomplish any action required hereunder within a specified time period ("Time Period") constitutes a default under the terms of this Agreement and, if any such failure is due to any unforeseeable or unpredictable event or condition beyond the control of such party, including, but not limited to, acts of God, acts of government authority (other than the City's own acts), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such party, severe adverse weather conditions or a United States economic recession declared by the National Bureau of Economic Research that temporarily makes it commercially impractical for Developer to complete the construction of the Project and sell the required residential homes ("Uncontrollable Event"), then, notwithstanding any provision of this Agreement to the contrary except as expressly provided below, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such party was unable to perform solely due to the Uncontrollable Event. The impacted party shall give notice to the other party, stating the period of time the occurrence is expected to continue, and he extended time period shall be agreed to in writing by the Parties and said agreement shall not be unreasonably withheld by either party. The impacted party shall use diligent efforts to end the failure or delay and ensure the effects of such force majeure event are minimized. The impacted party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. A force majeure event shall not excuse the Developer's requirement to

provide and maintain in effect a letter of credit under Section 9.0 of this Agreement or a performance and maintenance bond required by City Code. In addition, a United States economic recession force majeure event shall not excuse Developer from completing the Final Plans in accordance with the time periods required by Section 8.0 of this Agreement. The Parties agree that the provisions of Section 252.363, Florida Statutes do not apply to this Agreement or are hereby waived to the extent that such provisions are deemed to apply. Notwithstanding the aforesaid, the Parties may extend any Time Period as expressly provided elsewhere in this Agreement or as otherwise mutually agreed to in writing.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

CITY OF COCOA

By: _____
Jake Williams Jr., Mayor

ATTEST:

By: _____
Carie Shealy, MMC, City Clerk

APPROVED AS TO FORM AND LEGALITY
For the use and reliance of the City of Cocoa, Florida only.

Date: 7.10.2019
By: _____
Anthony A. Garganese, City Attorney for the City of Cocoa, Florida

CITY SEAL

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness

Samantha Johnson
Printed Name of Witness

Signature of Witness

Janice Cremarosa
Printed Name of Witness

VIRGIN TRAINS USA FLORIDA, LLC

Print name and title: Patrick Goddard
President
Virgin Trains USA

Date: 6/14/19

STATE OF Florida
COUNTY OF Miami-Dade

The foregoing instrument was acknowledged before me this 14th day of June, 2019, by Patrick Goddard the President of Virgin Trains USA a Florida LLC. He is personally known to me or produced _____ as identification.

(NOTARY SEAL)

JANICE LEON
MY COMMISSION # GG 263937
EXPIRES: February 1, 2023
Bonded Thru Notary Public Underwriters

(Notary Public Signature)

Janice Leon
(Print Name)

Notary Public, State of Florida
Commission No.: GG263937
My Commission Expires: 02/01/23

DEVELOPER IS HEREBY ADVISED THAT SHOULD DEVELOPER FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COUNCIL APPROVES THIS AGREEMENT, THIS AGREEMENT SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

Exhibits:

A – Legal Description
B – Two Alternative Concept Plans

EXHIBIT "A"

Legal Description

PARCEL 1

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 329.44 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line a distance of 2266.28 feet; thence departing said North line of Section 10, South 00 degrees 32 minutes 12 seconds East, a distance of 2235.09 feet to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), along said existing North right of way line a distance of 454.64 feet; thence North 87 degrees 19 minutes 06 seconds West, a distance of 638.49 feet, to a point of curvature of a curve concave to the Northeast, having a radius of 900.00 feet a central angle of 31 degrees 18 minutes 50 seconds (Calculated measurement) 31 degrees 18 minutes 48 seconds (Deed), thence Northwesterly along the arc of said curve a distance of 491.88 (calculated measurement) 491.87 (Deed) feet; thence North 56 degrees 04 minutes 39 seconds West (Calculated measurement) North 56 degrees 00 minutes 19 seconds West (Deed), a distance of 398.70 (Calculated measurement) 398.75 (Deed) feet to a point of curvature of a non-tangent curve concave to the North having a radius of 969.79 feet, a central angle of 37 degrees 46 minutes 38 seconds, thence Northwesterly along the arc of said curve a distance of 639.42 feet, to a point on the East right of way line of State Road No. 9 (Interstate 95); thence North 00 degrees 11 minutes 53 seconds West, along said East right of way line of State Road No. 9 (Interstate 95), a distance of 566.36 feet; thence North 01 degrees 55 minutes 04 seconds West, a distance of 300.93; thence North 01 degrees 20 minutes 38 seconds West, a distance of 476.50 feet to the POINT OF BEGINNING.

LESS AND EXCEPT THE AREA FOR BORROW PIT NO. 19 AND HAUL ROAD AS SET FORTH IN CIRCUIT COURT MINUTE BOOK 57, PAGE 479, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, OTHER THAN THE REVERSIONARY INTEREST, DESCRIBED AS FOLLOWS:

BORROW PIT NO. 19

A parcel of land in the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, described as follows:

Commence on the North boundary of said Section 10, at a point 150 feet East from the Northwest corner thereof, run thence South 00 degrees 12 minutes 38 seconds East 50 feet; thence North 89 degrees 59 minutes 22 seconds East, 499.83 feet to the Northwest corner of Borrow Pit No. 19 and the POINT OF BEGINNING; continue thence North 89 degrees 59 minutes 22 seconds East 600 feet; thence South 00 degrees 00 minutes 38 seconds East 550 feet; thence South 89 degrees 59 minutes 22 seconds West 600 feet; thence North 00 degrees 00 minutes 38 seconds West 550 feet to the POINT OF BEGINNING.

AND

HAUL ROUTE FOR BORROW PIT NO. 19

That part of the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, lying South and within 50 feet of a line described as follows:

Begin at the Northwest corner of Borrow Pit No. 19 as described above, run thence South 89 degrees 59 minutes 22 seconds West 499.83 feet to the end of said line as herein described.

PARCEL 2

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2595.72 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line of Section 10 a distance of 70.51 feet, to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet; thence departing said North line South 00 degrees 32 minutes 12 seconds East, a distance of 2404.54 feet, to a point on a curve on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence along said existing North right of way line and along said curve that is concave to the South, having a radius of 5879.58 feet, a central angle of 15 degrees 41 minutes 33 seconds; thence Westerly, along the arc of said curve, a distance of 1610.32 feet; thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), a distance of 404.03 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2235.09 feet, to the POINT OF BEGINNING.

PARCEL 3

A parcel of land lying in the North Half Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2666.23 feet to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet, to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 56 seconds East, along said North line of said Section 10, a distance of 738.58 feet to the Northeast corner of Section 10; thence South 00 degrees 32 minutes 12 seconds East, along the East line of said Section 10, a distance of 2602.18 feet, to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence North 74 degrees 59 minutes 21 seconds West, along said existing North right of way line, a distance of 693.63 feet, to a point of curvature of a curve concave to the South, having a radius of 5879.58 feet, a central angle of 00 degrees 42 minutes 35 seconds, thence Westerly, along the arc of said curve, a distance of 72.84 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2404.54 feet, to the POINT OF BEGINNING.

PARCEL 4

A parcel of land being the North 290 feet of the Southwest One Quarter of Section 12, Township 24 South, Range 35 East, Tallahassee Base Meridian, Brevard County, Florida, lying West of the Westerly right of way of Grissom Parkway, being part of the lands described in Official Records Book 549, Page 354 and being more particularly described by meets and bounds as follows:

Commence at a concrete monument occupying the Northwest corner of the Southwest One-Quarter of aforesaid Section 12; thence South 00 degrees 15 minutes 49 seconds East, along the West line of the Southwest One Quarter, a distance of 290.01 feet; thence South 89 degrees 54 minutes 34 seconds East, parallel to and 290.00 feet South of the North line of the Southwest One-quarter, a distance of 501.02 feet to a point on the Westerly right of way line of Grissom Parkway, said point lying on a radial circular curve, concave to the Northwest, having a radius of 1705.02 feet and a central angle of 11 degrees 38 minutes 02 seconds; thence Northwesterly, along said Westerly right of way line and the arc of said curve a distance of 346.20 feet (chord bearing North 32 degrees 51 minutes 07 seconds West) to the North line of the Southwest One-Quarter; thence North 89 degrees 54 minutes 34 seconds West, along said North line, a distance of 314.89 feet to the POINT OF BEGINNING.

LESS AND EXCEPT that portion conveyed to Brevard County Board of County Commissioners recorded in Official Records Book 2923, Page 1070; and in Official Records Book 2923, Page 1073, all of the Public Records of Brevard County, Florida.

PARCEL 5

The West 318 feet of the South Half of the South Half of the South Half of the North Half, LESS the North 30 feet for road and LESS the South 100 feet and the West 100 feet for canal, Section 11, Township 24 South, Range 35 East, Brevard County, Florida. Also known as Tract 6, Block 16, CANAVERAL GROVES SUBDIVISION, according to the Map thereof, as recorded in Survey Book 2, Page 621, Brevard County, Florida.

EXHIBIT
B
Page 1 of 2

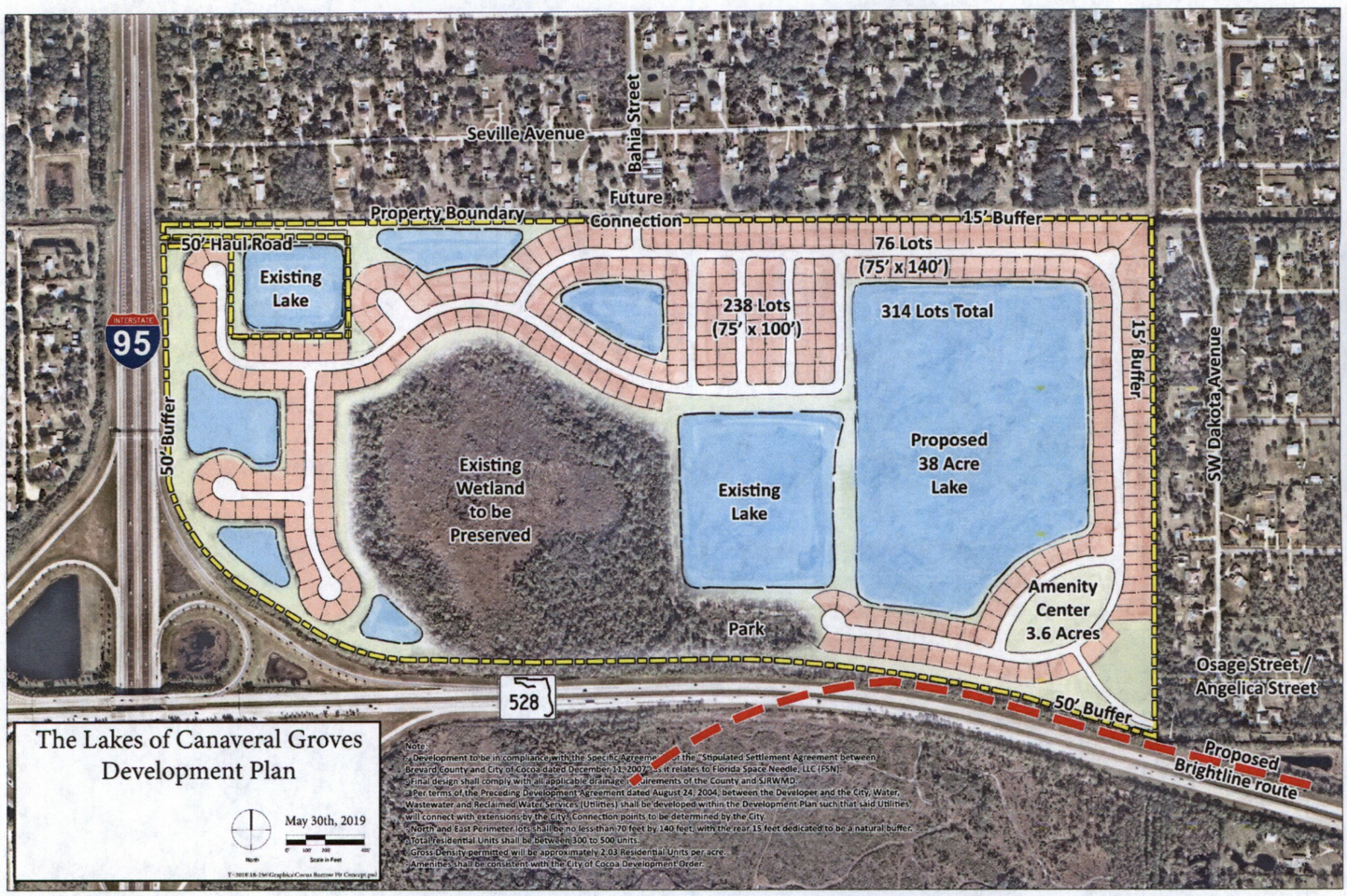
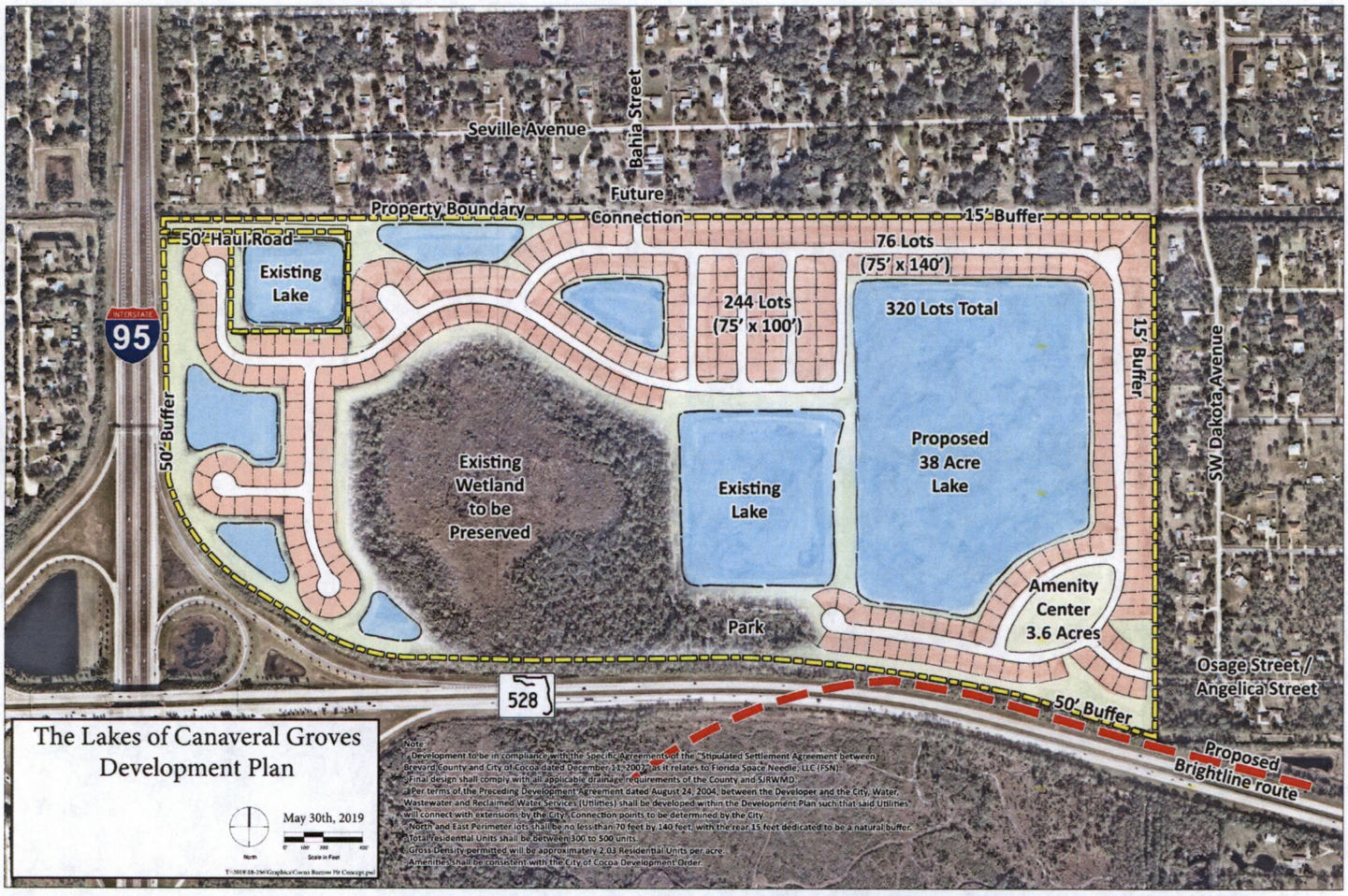


EXHIBIT
B
Page 2 of 2



The Lakes of Canaveral Groves Development Plan

May 30th, 2019

North

Scale in Feet

T:\2018\18-256\Graphics\Cocoa Burrow Plt Concept.psd

Note:

- Development to be in compliance with the Specific Agreement of the "Stipulated Settlement Agreement between Brevard County and City of Cocoa dated December 11, 2002, as it relates to Florida Space Needle, LLC (FSN)."
- Final design shall comply with all applicable drainage requirements of the County and SJRWMD.
- Per terms of the Preceding Development Agreement dated August 24, 2004, between the Developer and the City, Water, Wastewater and Reclaimed Water Services (Utilities) shall be developed within the Development Plan such that said Utilities will connect with extensions by the City. Connection points to be determined by the City.
- North and East Perimeter lots shall be no less than 70 feet by 140 feet, with the rear 15 feet dedicated to be a natural buffer.
- Total residential Units shall be between 300 to 500 units.
- Gross Density permitted will be approximately 2.03 Residential Units per acre.
- Amenities shall be consistent with the City of Cocoa Development Order.

DRMP

100 Parnell Street, Suite A, Merritt Island FL 32953
Phone: 321.453.0010

February 2, 2024

DRMP PROJECT NUMBER: 21-0540.002

Jack Walsh, P.E., Director
City of Cocoa Utilities Department
351 Shearer Blvd
Cocoa, FL 32922
(Via E-Mail jwalsh@cocoafl.org)

RE: **FRIDAY ROAD UTILITIES EXTENSTION PROJECT – CONSTRUCTION ADMINISTRATION SERVICES**

Dear Mr. Walsh,

DRMP, Inc. is pleased to present this proposal for Construction Administration services relating to the proposed Friday Road Utilities Extension Project (Task Order 2021-21). Our services will be based on the approved plans and permits previously prepared by DRMP. This construction project is to expand the City's utility service area, via extension of a sanitary force main, water main, and reclaimed water main from existing Cocoa Utilities Department (CCUD) utility systems located in the road rights-of-way of Friday Road, and Osage Street. The utility extensions are to be installed to ultimately provide service to The Lakes at Cocoa Groves Subdivision located at the northeast quadrant of Interstate 95 (I-95) and State Road 528 (S.R. 528), to the Beachline Partners LLC Subdivision (plans by others) located at the southeast quadrant of I-95 and S.R. 528. The proposed utility extension limits are as follows:

a. Water Main – connection of a 12" water main to the existing 12" watermain located at the intersection of Friday Road and James Road, and a northerly extension under S.R. 528, to Osage Street.

b. Sanitary Force Main – construction of an 8" force main from 1050 feet south of S.R. 528 within the Friday Road right of way, extending it northerly under S.R. 528, to Osage Street.

c. Reclaimed Water Main – construction of a 12" reclaimed water main from 1050 feet south of S.R. 528 within the Friday Road right of way, extending it northerly under S.R. 528, to Osage Street.

The basis of our scope of services and fee is commencement of work effort and 244 calendar days (8 months) to complete the project site work.

I. SCOPE OF SERVICES

TASK A - CONSTRUCTION ADMINISTRATION SERVICES

1. We will attend a pre-construction meeting with the City of Cocoa Utilities Department, as scheduled by the City.

2. We will attend a pre-construction meeting with FDOT.

3. We will attend a pre-construction meeting with Brevard County.

4. We will issue conformed (signed & sealed) plans to the Client for distribution to the contractor and City Inspector.

5. We will review contractor product submittals and issue approval, denial, or additional information needed requirements. Reviews will include piping and fittings required for the project, based upon the approved construction documents and the City's Approved Product List (APL).

6. We will complete site inspections during the course of construction activities, to review the progress of the construction work, review maintenance of traffic conditions, and confirm compliance with permit requirements. We will document our observations in written inspection reports with supporting photographs. It is anticipated that construction inspections and site visits will occur on average, 2 times per week during project construction (estimated 8 months). The inspection reports will be made available to the Client upon request.

7. We will attend up to 8 site meetings during construction to provide technical assistance to the City.

8. We will provide notification to the Client should we notice activities that we feel do not conform to project documents and/or permit conditions.

9. We will monitor erosion and sediment control measures during our construction inspections, and if deficiencies are noted, provide notice to the Client that corrective measures are required. Note that the contractor is responsible for obtaining NPDES permitting for the project, and providing all required groundwater testing results, additional settling and/or filtration measures needed to meet requirements, and all monitoring reports during construction. DRMP will not participate in inspection, reporting, compliance, or any other aspect of the NPDES permitting and/or monitoring process.

10. We will answer contractor written RFI's and will submit them to the City's Project Manager for distribution to the contractor. A $10,000 allowance, to be billed on a time and material basis, has been included to accommodate design drawing or permitting modifications that become necessary. We will provide those services as needed, to be invoiced to the Client based on our standard hourly rates.

11. We will attend up to 8 progress meetings (if necessary) with the City and Contractor to assess project progress versus the contract time period and assist the City with issuing project clarifications. We will also express any concerns related to construction or construction practices during these meetings.

12. We will review up to ten (10) Change Order Requests, and associated backup documentation submitted by the contractor and offer our recommendation for approval, denial or additional information needed, to the Client. We estimate 4 hours per review and will invoice on a time and materials basis.

13. We will review Contractor monthly Pay Applications as submitted by the contractor on standard AIA forms, or an approved equivalent and will certify approvals if justified, or issue written notification of required adjustments.

14. We will review certified pressure and bacteriological test results for the water mains, and pressure test results for the reclaimed water, and sanitary sewer force main systems, for compliance with permitting requirements.

15. We will review certified geotechnical testing results for density testing for backfill, base and subgrade materials, and concrete compression testing.

16. We will review certified as-built survey drawings provided by the contractor's Florida Licensed Surveyor. We will review draft as-built drawings and provide review comments. We will perform a second review of the revised draft as-built drawings if required and will request final certified as-built survey drawings upon acceptance of the draft as-built drawings. Note that we will not review contractor redline as-built drawings. We will issue to the City, comments relative to any deficiencies in the as-built drawings.

17. We will submit the contractor-supplied certified waterline as-built drawings, test results and FDEP Request for Clearance to the City of Cocoa for their review. We will forward City comments received to the contractor. We will submit revised documents to the City upon completion. Upon approval by City of Cocoa, we will issue an FDEP clearance request to FDEP for approval consideration.

18. We will submit the contractor-supplied certified sanitary sewer force main as-built drawings, test results and FDEP Request for Clearance to the City of Cocoa for their review. We will forward City comments received to the contractor. We will submit revised documents to the City upon completion. Upon approval by City of Cocoa, we will issue an FDEP dry line clearance request to FDEP for approval consideration.

19. We will coordinate with the City and attend the Pre-final inspection of the project. We will assist the client with preparing a Pre-final list of construction. Upon Contractor's notification that the Pre-final construction deficiency list items have been completely addressed, we will attend a Final inspection of the project. If necessary, we will issue a Final inspection construction deficiency list for issuance to the project Contractor and will attend a 2nd Final inspection of the project for verification of project completion.

20. Upon completion of the services described above, we will issue a letter to the City indicating that the project construction has been completed in substantial conformance with the approved plans, specifications and permits.

TASK B – FDOT Utility Permit Modification

1. We will revise plans to show 24" steel casing on all 3 bores with 10' C/L to C/L separation as requested. Plans and permit modification application will be submitted to FDOT for review and approval (note Brightline provides review of the FDOT submittal).

II. ASSUMPTIONS AND CONDITIONS

1. It is assumed that the Friday Road project will run concurrently with the Osage/Angelica project and that inspection trips for both projects can be combined during this overlap. The site inspection trips have been reduced from an estimated 3 hours to 2 hours per trip during this overlap.

2. Engineering design, re-permitting, and/or permitting services required in response to RFI's, or for Brevard County, FDOT, FDEP, or City of Cocoa will be invoiced to the client on a time and materials basis (based on standard hourly rates). An allowance of $10,000 has been included in this proposal.

3. Permitting is not included. If permit modifications are required as a result of changes made during construction, all design, plan preparation, application preparation, agency submittals, revisions, etc., will be performed and invoiced to the Client based upon our standard hourly rates.

4. Surveying services are not included.

5. Construction stakeout and/or preparation of as-built drawings are not included.

6. Material quantity measurements/verification is not included.

7. The project contractor is responsible for site specific Maintenance of Traffic (MOT) design services. If a reviewing agency (FDOT and/or Brevard County) requires a detailed, site-specific MOT plan, the project contractor will be responsible for submitting such a plan based upon their anticipated construction area footprint required to perform their work and obtaining appropriate agency approvals for their MOT plan.

8. NPDES permitting, inspections, reporting, and compliance is not included and is to be performed by the contractor.

9. The contractor is responsible for all water quality sampling to ensure turbidity levels are within allowable tolerances. Sampling records to be prepared and maintained by contractor for agency review if requested.

10. Contractor to provide passing pressure test and bacteriological tests in conformance with CCUD/FDEP requirements for water system clearance.

11. This proposal includes one FDEP submittal for the sanitary sewer and water system clearance. Partial clearances and additional as-built reviews are not included and will be performed and invoiced to the Client based upon our standard hourly rates.

12. Geotechnical testing services are to be provided to DRMP for review.

13. Utility relocation design and/or permitting is not included.

14. Consumptive Use permitting is not included and is the responsibility of the contractor should de-watering efforts trigger Consumptive Use Permitting thresholds.

15. Construction Administration and Certification services are intended to be the minimum required to meet permit conditions and provide periodic witness to construction activities during critical times of construction. Our site attendance during these times is

reliant on notification by the contractor and/or Client as to the scheduled specific construction operation. The services are not construction management services.

16. Re-permitting, permit modifications, Engineering Revisions for Brevard County, FDOT, FDEP, or City of Cocoa is not included. Any proposed deviations from the approved project design documents may require additional engineering and permitting.

17. The construction administration project timeframe is based on 244 calendar days (8 months). This timeframe commences with the first service performed. If construction services extend beyond this timeframe, additional compensation will be required and will be invoiced to the Client based upon our standard hourly rates.

18. It is assumed no CA support is needed until materials are on site and contractor is ready to commence with work.

III. FEES

A.	**Construction Administration Services**	**$ 86,325.00**
B.	**FDOT Utility Permit Modification**	**$ 1,600.00**
C.	**Design Drawing/Permitting Modifications (Allowance)**	**$ 10,000.00**
	Total:	**$97,925.00**

These fees are based on the estimated labor-hour breakdown attached and DRMP standard hourly rates, as itemized and reflected in Exhibit "A" attached.

IV. INVOICING PROCEDURES AND PAYMENT

DRMP, INC. shall submit invoices to the Client for work accomplished during each calendar month. For services provided on a Lump Sum basis, the amount of each monthly invoice shall be based on the percentage of task completion estimated by **DRMP, INC.** accomplished during the invoicing period.

This proposal is valid for a period of sixty (60) days from the date herein and subject to change thereafter. If the contents of this contract are acceptable, please issue an approved work order. Thank you for the opportunity to provide these services, and we look forward to working with you on this project.

Sincerely,

DRMP, INC.



Brandon Waller, PE
Senior Project Manager

Exhibit "A"
Labor-Hour Breakdown-Basic Scope
FRIDAY ROAD UTILITIES EXTENSION
DRMP# 21-0540.002
2/2/24

	Hours	Rate	Subtotal		
A. CONSTRUCTION ADMINISTRATION SERVICES					
1. Pre-Con w/Utility Companies, Contractor & City					
Senior Project Manager	2.00	$ 250	$ 500		
Project Inspector	2.00	$ 145	$ 290		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	910
2. FDOT Pre-Con Meeting					
Senior Project Manager	2.00	$ 250	$ 500		
Project Inspector	2.00	$ 145	$ 290		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	910
3. Brevard County Pre-Con Meeting					
Senior Project Manager	2.00	$ 250	$ 500		
Project Inspector	2.00	$ 145	$ 290		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	910
4. Issue Conformed Signed & Sealed Plans					
Senior Project Manager	0.50	$ 250	$ 125		
Project Inspector		$ 145	$ -		
Engineering Technician	1.00	$ 145	$ 145		
AutoCAD Technician	2.00	$ 145	$ 290		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	680
5. Review Contractor Product Submittals					
Senior Project Manager	4.00	$ 250	$ 1,000		
Project Inspector	4.00	$ 145	$ 580		
Engineering Technician	16.00	$ 145	$ 2,320		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	4,020
6. Site visits, Inspections & Inspection Reports					
Senior Project Manager	13.00	$ 250	$ 3,250		
Project Inspector	174.00	$ 145	$ 25,230		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	16.00	$ 120	$ 1,920		
			Subtotal	$	30,400
7. Site Meetings (up to 8 meetings)					
Senior Project Manager	8.00	$ 250	$ 2,000		
Project Inspector	16.00	$ 145	$ 2,320		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	2.50	$ 120	$ 300		
			Subtotal	$	4,620

8. Notification to Client of non-conformance							
Senior Project Manager	0.50	$	250	$	125		
Project Inspector	2.00	$	145	$	290		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant	2.00	$	120	$	240		
					Subtotal	$	655
9. Erosion Control Monitoring (Time included in Task 6)							
10. Respond to Contractor RFI's							
Senior Project Manager	8.00	$	250	$	2,000		
Project Inspector	8.00	$	145	$	1,160		
Engineering Technician	16.00	$	145	$	2,320		
AutoCAD Technician		$	145	$	-		
Office Assistant	1.00	$	120	$	120		
					Subtotal	$	5,600
11. Construction Progress Meetings (up to 8 meetings)							
Senior Project Manager	8.00	$	250	$	2,000		
Project Inspector	16.00	$	145	$	2,320		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant	4.00	$	120	$	480		
					Subtotal	$	4,800
12. Review Change Order Requests (up to 10)							
Senior Project Manager	40.00	$	250	$	10,000		
Project Inspector		$	145	$	-		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant		$	120	$	-		
					Subtotal	$	10,000
13. Review Monthly Contractor Pay Applications							
Senior Project Manager	2.00	$	250	$	500		
Project Inspector	26.00	$	145	$	3,770		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant	2.00	$	120	$	240		
					Subtotal	$	4,510
14. Review Bacteriological and Pressure Test Results							
Senior Project Manager	1.00	$	250	$	250		
Project Inspector		$	145	$	-		
Engineering Technician	6.00	$	145	$	870		
AutoCAD Technician		$	145	$	-		
Office Assistant	1.00	$	120	$	120		
					Subtotal	$	1,240
15. Review Backfill Density Test/Geotechnical Results							
Senior Project Manager	1.00	$	250	$	250		
Project Inspector	2.00	$	145	$	290		
Engineering Technician	4.00	$	145	$	580		
AutoCAD Technician		$	145	$	-		
Office Assistant	1.00	$	120	$	120		
					Subtotal	$	1,240

16. Certified As-built Reviews						
Senior Project Manager	4.00	$	250	$ 1,000		
Project Inspector	36.00	$	145	$ 5,220		
Engineering Technician	8.00	$	145	$ 1,160		
AutoCAD Technician		$	145	$ -		
Office Assistant	1.00	$	120	$ 120		
				Subtotal	$	7,500
17. FDEP Waterline Clearance						
Senior Project Manager	2.00	$	250	$ 500		
Project Inspector		$	145	$ -		
Engineering Technician	2.00	$	145	$ 290		
AutoCAD Technician		$	145	$ -		
Office Assistant	8.00	$	120	$ 960		
				Subtotal	$	1,750
18. FDEP Sanitary FM Dry Line Clearance						
Senior Project Manager	2.00	$	250	$ 500		
Project Inspector		$	145	$ -		
Engineering Technician	2.00	$	145	$ 290		
AutoCAD Technician		$	145	$ -		
Office Assistant	8.00	$	120	$ 960		
				Subtotal	$	1,750
19. Pre-final/Final Inspection and Punch List						
Senior Project Manager	4.00	$	250	$ 1,000		
Project Inspector	12.00	$	145	$ 1,740		
Engineering Technician	4.00	$	145	$ 580		
AutoCAD Technician		$	145	$ -		
Office Assistant	4.00	$	120	$ 480		
				Subtotal	$	3,800
20. Project Completion/Substantial Conformance Letter						
Senior Project Manager	2.00	$	250	$ 500		
Project Inspector	2.00	$	145	$ 290		
Engineering Technician		$	145	$ -		
AutoCAD Technician		$	145	$ -		
Office Assistant	2.00	$	120	$ 240		
				Subtotal	$	1,030
B. FDOT Utility Permit Modfication						
1. Drawing and Permit Modifications/Submittal						
Senior Project Manager	1.00	$	250	$ 250		
Project Inspector		$	145	$ -		
Engineering Technician		$	145	$ -		
AutoCAD Technician	6.00	$	145	$ 870		
Office Assistant	4.00	$	120	$ 480		
				Subtotal	$	1,600

A. CONSTRUCTION ADMINISTRATION SERVICES TOTAL:	**$86,325**
B. FDOT UTILITY PERMIT MODIFICATION TOTAL:	**$1,600**
C. DESIGN DRAWING/PERMITTING MODIFICATION (ALLOWANCE) TOTAL:	**$10,000**
PROJECT TOTAL:	**$97,925**

DRMP

100 Parnell Street, Suite A, Merritt Island FL 32953
Phone: 321.453.0010

February 1, 2024

DRMP PROJECT NUMBER: 21-0540.002

Jack Walsh, P.E., Director
City of Cocoa Utilities Department
351 Shearer Blvd
Cocoa, FL 32922
(Via E-Mail jwalsh@cocoafl.org)

RE: **OSAGE/ANGELICA STREET UTILITIES EXTENSTION PROJECT – CONSTRUCTION ADMINISTRATION SERVICES**

Dear Mr. Walsh,

DRMP, Inc. is pleased to present this proposal for Construction Administration services relating to the proposed Osage/Angelica Road Utilities Extension Project. Our services will be based on the approved plans and permits previously prepared by DRMP. This construction project is to expand the City's utility service area, via extension of a sanitary force main, water main, and reclaimed water main from existing Cocoa Utilities Department (CCUD) utility systems located in the road rights-of-way of Osage Street and Angelica Street. The utility extensions are to be installed to provide improved utility service to existing and future residential homes. The proposed utility extension limits are as follows:

a. Water Main – connection of a 12" water main to the proposed 12" watermain located at the west end of Osage Street continuing easterly to the intersection of Angelica Street and Cherokee Avenue.

b. Sanitary Force Main – construction of an 8" PVC and 10" HDPE force main from the west end of Osage Street, easterly to Angelica Street, continuing easterly and connecting to the existing 12" force main located on the east side of Grissom Parkway.

c. Reclaimed Water Main – construction of a 12" reclaimed water main from the west end of Osage Street, easterly to Angelica Street, continuing easterly and connecting to the existing 12" reclaimed water main located at the northwest corner of Angelica Street and Alan Shepard Ave.

The basis of our scope of services and fee is commencement of work effort and 395 calendar days (13 months) to complete the project site work.

I. SCOPE OF SERVICES

TASK A - CONSTRUCTION ADMINISTRATION SERVICES

1. We will attend a pre-construction meeting with the City of Cocoa Utilities Department, as scheduled by the City.

2. We will attend a pre-construction meeting with FDOT.

3. We will attend a pre-construction meeting with Brevard County.

4. We will issue conformed (signed & sealed) plans to the Client for distribution to the contractor and City Inspector.

5. We will review contractor product submittals and issue approval, denial, or additional information needed requirements. Reviews will include piping and fittings required for the project, based upon the approved construction documents and the City's Approved Product List (APL).

6. We will complete site inspections during the course of construction activities, to review the progress of the construction work, review maintenance of traffic conditions, and confirm compliance with permit requirements. We will document our observations in written inspection reports with supporting photographs. It is anticipated that construction inspections and site visits will occur on average, 2 times per week during project construction (estimated 13 months). The inspection reports will be made available to the Client upon request.

7. We will attend up to 13 site meetings during construction to provide technical assistance to the City.

8. We will provide notification to the Client should we notice activities that we feel do not conform to project documents and/or permit conditions.

9. We will monitor erosion and sediment control measures during our construction inspections, and if deficiencies are noted, provide notice to the Client that corrective measures are required. Note that the contractor is responsible for obtaining NPDES permitting for the project, and providing all required groundwater testing results, additional settling and/or filtration measures needed to meet requirements, and all monitoring reports during construction. DRMP will not participate in inspection, reporting, compliance, or any other aspect of the NPDES permitting and/or monitoring process.

10. We will answer contractor written RFI's and will submit them to the City's Project Manager for distribution to the contractor. A $10,000 allowance, to be billed on a time and material basis, has been included to accommodate design drawing or permitting modifications that become necessary. We will provide those services as needed, to be invoiced to the Client based on our standard hourly rates.

11. We will attend up to 13 progress meetings (if necessary) with the City and Contractor to assess project progress versus the contract time period and assist the City with issuing project clarifications. We will also express any concerns related to construction or construction practices during these meetings.

12. We will review up to ten (10) Change Order Requests, and associated backup documentation submitted by the contractor and offer our recommendation for approval, denial or additional information needed, to the Client. We estimate 4 hours per review and will invoice on a time and materials basis.

13. We will review Contractor monthly Pay Applications as submitted by the contractor on standard AIA forms, or an approved equivalent and will certify approvals if justified, or issue written notification of required adjustments.

14. We will review certified pressure and bacteriological test results for the water mains, and pressure test results for the reclaimed water, and sanitary sewer force main systems, for compliance with permitting requirements.

15. We will review certified geotechnical testing results for density testing for backfill, base and subgrade materials, and concrete compression testing.

16. We will review certified as-built survey drawings provided by the contractor's Florida Licensed Surveyor. We will review draft as-built drawings and provide review comments. We will perform a second review of the revised draft as-built drawings if required and will request final certified as-built survey drawings upon acceptance of the draft as-built drawings. Note that we will not review contractor redline as-built drawings. We will issue to the City, comments relative to any deficiencies in the as-built drawings.

17. We will submit the contractor-supplied certified waterline as-built drawings, test results and FDEP Request for Clearance to the City of Cocoa for their review. We will forward City comments received to the contractor. We will submit revised documents to the City upon completion. Upon approval by City of Cocoa, we will issue an FDEP clearance request to FDEP for approval consideration.

18. We will submit the contractor-supplied certified sanitary sewer force main as-built drawings, test results and FDEP Request for Clearance to the City of Cocoa for their review. We will forward City comments received to the contractor. We will submit revised documents to the City upon completion. Upon approval by City of Cocoa, we will issue an FDEP dry line clearance request to FDEP for approval consideration.

19. We will coordinate with the City and attend the pre-final inspection of the project. We will assist the client with preparing a pre-final list of construction. Upon Contractor's notification that the pre-final construction deficiency list items have been completely addressed, we will attend a Final inspection of the project. If necessary, we will issue a final inspection construction deficiency list for issuance to the project Contractor and will attend a 2nd Final inspection of the project for verification of project completion.

20. Upon completion of the services described above, we will issue a letter to the City indicating that the project construction has been completed in substantial conformance with the approved plans, specifications and permits.

II. ASSUMPTIONS AND CONDITIONS

1. It is assumed that the Osage/Angelica project will run concurrently with the Friday Road project and that inspection trips for both projects can be combined during this 8-month overlap. The site inspection trips have been reduced from an estimated 3 hours to 2 hours per trip during this overlap.

2. Engineering design, re-permitting, and/or permitting services required in response to RFI's, or for Brevard County, FDOT, FDEP, or City of Cocoa will be invoiced to the client on a time and materials basis (based on standard hourly rates). An allowance of $10,000 has been included in this proposal.

3. Permitting is not included. If permit modifications are required as a result of changes made during construction, all design, plan preparation, application preparation, agency submittals, revisions, etc., will be performed and invoiced to the Client based upon our standard hourly rates.

4. Surveying services are not included.

5. Construction stakeout and/or preparation of as-built drawings are not included.

6. Material quantity measurements/verification is not included.

7. The project contractor is responsible for site specific Maintenance of Traffic (MOT) design services. If a reviewing agency (FDOT and/or Brevard County) requires a detailed, site-specific MOT plan, the project contractor will be responsible for submitting such a plan based upon their anticipated construction area footprint required to perform their work and obtaining appropriate agency approvals for their MOT plan.

8. NPDES permitting, inspections, reporting, and compliance is not included and is to be performed by the contractor.

9. The contractor is responsible for all water quality sampling to ensure turbidity levels are within allowable tolerances. Sampling records to be prepared and maintained by contractor for agency review if requested.

10. Contractor to provide passing pressure test and bacteriological tests in conformance with CCUD/FDEP requirements for water system clearance.

11. This proposal includes one FDEP submittal for the sanitary sewer and water system clearance. Partial clearances and additional as-built reviews are not included and will be performed and invoiced to the Client based upon our standard hourly rates.

12. Geotechnical testing services are to be provided to DRMP for review.

13. Utility relocation design and/or permitting is not included.

14. Consumptive Use permitting is not included and is the responsibility of the contractor should de-watering efforts trigger Consumptive Use Permitting thresholds.

15. Construction Administration and Certification services are intended to be the minimum required to meet permit conditions and provide periodic witness to construction activities during critical times of construction. Our site attendance during these times is reliant on notification by the contractor and/or Client as to the scheduled specific construction operation. The services are not construction management services.

16. Re-permitting, permit modifications, Engineering Revisions for Brevard County, FDOT, FDEP, or City of Cocoa is not included. Any proposed deviations from the approved project design documents may require additional engineering and permitting.

17. The construction administration project timeframe is based on 395 calendar days (13 months). This timeframe commences with the first service performed. If construction services extend beyond this timeframe, additional compensation will be required and will be invoiced to the Client based upon our standard hourly rates.

18. It is assumed no CA support is needed until materials are on site and contractor is ready to commence with work.

III. FEES

A. Construction Administration Services		**$114,140.00**
B. Design Drawing/Permitting Modifications (Allowance)		**$ 10,000.00**
	Total:	**$124,140.00**

These fees are based on the estimated labor-hour breakdown attached and DRMP standard hourly rates, as itemized and reflected in Exhibit "A" attached.

IV. INVOICING PROCEDURES AND PAYMENT

DRMP, INC. shall submit invoices to the Client for work accomplished during each calendar month. For services provided on a Lump Sum basis, the amount of each monthly invoice shall be based on the percentage of task completion estimated by **DRMP, INC.** accomplished during the invoicing period.

This proposal is valid for a period of sixty (60) days from the date herein and subject to change thereafter. If the contents of this contract are acceptable, please issue an approved work order. Thank you for the opportunity to provide these services, and we look forward to working with you on this project.

Sincerely,

DRMP, INC.



Brandon Waller, PE
Senior Project Manager

Exhibit "A"
Labor-Hour Breakdown-Basic Scope
OSAGE/ANGELICA STREET UTILITIES EXTENSION
DRMP# 21-0540.002
2/1/24

	Hours	Rate	Subtotal		
A. CONSTRUCTION ADMINISTRATION SERVICES					
1. Pre-Con w/Utility Companies, Contractor & City					
Senior Project Manager	2.00	$ 250	$ 500		
Project Inspector	2.00	$ 145	$ 290		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	910
2. FDOT Pre-Con Meeting					
Senior Project Manager	2.00	$ 250	$ 500		
Project Inspector	2.00	$ 145	$ 290		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	910
3. Brevard County Pre-Con Meeting					
Senior Project Manager	2.00	$ 250	$ 500		
Project Inspector	2.00	$ 145	$ 290		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	910
4. Issue Conformed Signed & Sealed Plans					
Senior Project Manager	0.50	$ 250	$ 125		
Project Inspector		$ 145	$ -		
Engineering Technician	1.00	$ 145	$ 145		
AutoCAD Technician	2.00	$ 145	$ 290		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	680
5. Review Contractor Product Submittals					
Senior Project Manager	4.00	$ 250	$ 1,000		
Project Inspector	4.00	$ 145	$ 580		
Engineering Technician	16.00	$ 145	$ 2,320		
AutoCAD Technician		$ 145	$ -		
Office Assistant	1.00	$ 120	$ 120		
			Subtotal	$	4,020
6. Site visits, Inspections & Inspection Reports					
Senior Project Manager	14.50	$ 250	$ 3,625		
Project Inspector	326.00	$ 145	$ 47,270		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	16.00	$ 120	$ 1,920		
			Subtotal	$	52,815
7. Site Meetings (up to 13 meetings)					
Senior Project Manager	13.00	$ 250	$ 3,250		
Project Inspector	26.00	$ 145	$ 3,770		
Engineering Technician		$ 145	$ -		
AutoCAD Technician		$ 145	$ -		
Office Assistant	2.50	$ 120	$ 300		
			Subtotal	$	7,320

8. Notification to Client of non-conformance							
Senior Project Manager	0.50	$	250	$	125		
Project Inspector	2.00	$	145	$	290		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant	2.00	$	120	$	240		
					Subtotal	$	655
9. Erosion Control Monitoring (Time included in Task 6)							
10. Respond to Contractor RFI's							
Senior Project Manager	8.00	$	250	$	2,000		
Project Inspector	8.00	$	145	$	1,160		
Engineering Technician	16.00	$	145	$	2,320		
AutoCAD Technician		$	145	$	-		
Office Assistant	1.00	$	120	$	120		
					Subtotal	$	5,600
11. Construction Progress Meetings (up to 13 meetings)							
Senior Project Manager	13.00	$	250	$	3,250		
Project Inspector	26.00	$	145	$	3,770		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant	4.00	$	120	$	480		
					Subtotal	$	7,500
12. Review Change Order Requests (up to 10)							
Senior Project Manager	40.00	$	250	$	10,000		
Project Inspector		$	145	$	-		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant		$	120	$	-		
					Subtotal	$	10,000
13. Review Monthly Contractor Pay Applications							
Senior Project Manager	2.00	$	250	$	500		
Project Inspector	26.00	$	145	$	3,770		
Engineering Technician		$	145	$	-		
AutoCAD Technician		$	145	$	-		
Office Assistant	2.00	$	120	$	240		
					Subtotal	$	4,510
14. Review Bacteriological and Pressure Test Results							
Senior Project Manager	1.00	$	250	$	250		
Project Inspector		$	145	$	-		
Engineering Technician	6.00	$	145	$	870		
AutoCAD Technician		$	145	$	-		
Office Assistant	1.00	$	120	$	120		
					Subtotal	$	1,240
15. Review Backfill Density Test/Geotechnical Results							
Senior Project Manager	1.00	$	250	$	250		
Project Inspector	2.00	$	145	$	290		
Engineering Technician	4.00	$	145	$	580		
AutoCAD Technician		$	145	$	-		
Office Assistant	1.00	$	120	$	120		
					Subtotal	$	1,240

16. Certified As-built Reviews						
Senior Project Manager	4.00	$	250	$ 1,000		
Project Inspector	36.00	$	145	$ 5,220		
Engineering Technician	8.00	$	145	$ 1,160		
AutoCAD Technician		$	145	$ -		
Office Assistant	1.00	$	120	$ 120		
				Subtotal	$	7,500
17. FDEP Waterline Clearance						
Senior Project Manager	2.00	$	250	$ 500		
Project Inspector		$	145	$ -		
Engineering Technician	2.00	$	145	$ 290		
AutoCAD Technician		$	145	$ -		
Office Assistant	8.00	$	120	$ 960		
				Subtotal	$	1,750
18. FDEP Sanitary FM Dry Line Clearance						
Senior Project Manager	2.00	$	250	$ 500		
Project Inspector		$	145	$ -		
Engineering Technician	2.00	$	145	$ 290		
AutoCAD Technician		$	145	$ -		
Office Assistant	8.00	$	120	$ 960		
				Subtotal	$	1,750
19. Pre-final/Final Inspection and Punch List						
Senior Project Manager	4.00	$	250	$ 1,000		
Project Inspector	12.00	$	145	$ 1,740		
Engineering Technician	4.00	$	145	$ 580		
AutoCAD Technician		$	145	$ -		
Office Assistant	4.00	$	120	$ 480		
				Subtotal	$	3,800
20. Project Completion/Substantial Conformance Letter						
Senior Project Manager	2.00	$	250	$ 500		
Project Inspector	2.00	$	145	$ 290		
Engineering Technician		$	145	$ -		
AutoCAD Technician		$	145	$ -		
Office Assistant	2.00	$	120	$ 240		
				Subtotal	$	1,030
CONSTRUCTION ADMINISTRATION SERVICES TOTAL:						**$114,140**

Engineer's Estimate of Probable Cost

Friday Road Utilities

City of Cocoa, Florida

Date: 04/04/22

DRMP file # 21-0540.002 segments$

Summary of Estimated Costs:

Utility	Segment A	Segment B
Water Main	$617,400	$471,430
Force Main	$295,725	$527,900
Reclaimed Water Main	$280,950	$231,350
Subtotal	$1,194,075	$1,230,680
15% Contingency	$179,111	$184,602
Total	**$1,373,186**	**$1,415,282**

Notes:

1. See sketch for locations of proposed utilities and segments.
2. This estimate is preliminary only.
3. Does not include costs for surveying, engineering, permitting, etc.

Item	Qty.	Unit	Unit $	Ext. $	Totals
Segment A — Water Main					
Mobilization	1	LS	37,000.00	37,000.00	
Pre-construction video	1	LS	4,000.00	4,000.00	
Construction layout & as-builts	1	LS	8,000.00	8,000.00	
Maintenance of traffic	1	LS	3,000.00	3,000.00	
Erosion & sediment control	1	LS	2,800.00	2,800.00	
Clearing and grubbing	1	LS	4,000.00	4,000.00	
Flowable fill	16	CY	300.00	4,800.00	
Mill exist. asphalt, 1.5" avg. depth	320	SY	15.00	4,800.00	
Superpave asphalt, SP-12.5, traf. C	30	TN	250.00	7,500.00	
Sod	1,675	SY	5.00	8,375.00	
8" PVC	85	LF	45.00	3,825.00	
12" PVC	1,560	LF	60.00	93,600.00	
8" DIP	60	LF	80.00	4,800.00	
Jack & bore 12" DIP	435	LF	500.00	217,500.00	
Direct bore 12" fusible PVC	940	LF	110.00	103,400.00	
12" Gate valve	7	EA	6,000.00	42,000.00	
8" Gate valve in manhole	2	EA	5,500.00	11,000.00	
6"×6" Wet tap	1	EA	5,000.00	5,000.00	
12"×12" Wet tap	1	EA	7,000.00	7,000.00	
Fittings	1	LS	45,000.00	45,000.00	**$617,400**
Segment A — Force Main					
Mobilization	1	LS	18,000.00	18,000.00	
Pre-construction video	1	LS	2,000.00	2,000.00	
Construction layout & as-builts	1	LS	5,000.00	5,000.00	
Maintenance of traffic	1	LS	1,000.00	1,000.00	
Erosion & sediment control	1	LS	1,400.00	1,400.00	
Clearing and grubbing	1	LS	2,000.00	2,000.00	
Sod	315	SY	5.00	1,575.00	
8" PVC	90	LF	45.00	4,050.00	
Jack & bore 8" DIP	435	LF	400.00	174,000.00	
Direct bore 8" fusible PVC	650	LF	70.00	45,500.00	
8" Gate valve	4	EA	2,300.00	9,200.00	
Air/vac assembly	2	EA	7,500.00	15,000.00	
Fittings	1	LS	17,000.00	17,000.00	**$295,725**
Segment A — Reclaimed Water Main					
Mobilization	1	LS	17,000.00	17,000.00	
Pre-construction video	1	LS	2,000.00	2,000.00	
Construction layout & as-builts	1	LS	5,000.00	5,000.00	
Maintenance of traffic	1	LS	1,000.00	1,000.00	
Erosion & sediment control	1	LS	1,400.00	1,400.00	
Clearing and grubbing	1	LS	2,000.00	2,000.00	
Sod	335	SY	5.00	1,675.00	
8" PVC	115	LF	45.00	5,175.00	
Jack & bore 8" DIP	435	LF	400.00	174,000.00	
Direct bore 8" fusible PVC	650	LF	70.00	45,500.00	
8" Gate valve	4	EA	2,300.00	9,200.00	
Fittings	1	LS	17,000.00	17,000.00	**$280,950**

DRMP file # 21-0540.002 segments$

Item	Qty.	Unit	Unit $	Ext. $
Segment B — Water Main				
Mobilization	1	LS	27,000.00	27,000.00
Pre-construction video	1	LS	3,500.00	3,500.00
Construction layout & as-builts	1	LS	7,500.00	7,500.00
Maintenance of traffic	1	LS	9,000.00	9,000.00
Erosion & sediment control	1	LS	4,000.00	4,000.00
Clearing and grubbing	1	LS	5,000.00	5,000.00
Signing & pavement markings	1	LS	3,000.00	3,000.00
Flowable fill	47	CY	300.00	14,100.00
Superpave SP-12.5, 1.5"	9	TN	250.00	2,250.00
Concrete driveway repair	1	EA	1,200.00	1,200.00
Sod	1,660	SY	5.00	8,300.00
12" PVC	2,000	LF	60.00	120,000.00
12"×12" Wet tap	1	EA	7,000.00	7,000.00
4" Gate valve	4	EA	1,250.00	5,000.00
6" Gate valve	2	EA	1,800.00	3,600.00
12" Gate valve	3	EA	6,000.00	18,000.00
4" Line stop assembly	4	EA	5,500.00	22,000.00
6" Line stop assembly	2	EA	6,200.00	12,400.00
Fittings	1.22	TN	17,000.00	20,740.00
			Subtotal	$293,590
			Lakes at Cocoa Grove Added Cost (see below)	$177,840
			Total	**$471,430**

Lakes at Cocoa Grove — Original Plan Design

Item	Qty.	Unit	Unit $	Ext. $
8" PVC	4,490	LF	40.00	179,600.00
10" PVC	370	LF	50.00	18,500.00
8" DIP	140	LF	60.00	8,400.00
10" DIP	60	LF	70.00	4,200.00
8" Gate valve	10	EA	2,300.00	23,000.00
10" Gate valve	2	EA	2,900.00	5,800.00
Fittings	3.41	TN	17,000.00	57,970.00
			Subtotal	$297,470

Lakes at Cocoa Grove — Upsize to 12"

Item	Qty.	Unit	Unit $	Ext. $
12" PVC	4,860	LF	60.00	291,600.00
12" DIP	200	LF	80.00	16,000.00
12" Gate valve	12	EA	6,000.00	72,000.00
Fittings	5.63	TN	17,000.00	95,710.00
			Subtotal	$475,310
			Lakes at Cocoa Grove Added Cost	**$177,840**

Estimated Costs for Friday Road Utilities

Date: 04/04/22

DRMP file # 21-0540.002 segments$

Item	Qty.	Unit	Unit $	Ext. $	Totals
Segment B — Force Main					
Mobilization	1	LS	32,000.00	32,000.00	
Pre-construction video	1	LS	3,000.00	3,000.00	
Construction layout & as-builts	1	LS	5,000.00	5,000.00	
Maintenance of traffic	1	LS	5,000.00	5,000.00	
Erosion & sediment control	1	LS	6,000.00	6,000.00	
Clearing and grubbing	1	LS	15,000.00	15,000.00	
Sod	1,200	SY	5.00	6,000.00	
8" PVC	400	LF	45.00	18,000.00	
Direct bore 8" fusible PVC	5,400	LF	70.00	378,000.00	
12"×8" Wet tap	1	EA	6,000.00	6,000.00	
8" Gate valve	3	EA	2,300.00	6,900.00	
Air/vac assembly	2	EA	7,500.00	15,000.00	
Fittings	1	LS	32,000.00	32,000.00	**$527,900**
Segment B — Reclaimed Water Main					
Mobilization	1	LS	14,000.00	14,000.00	
Pre-construction video	1	LS	2,000.00	2,000.00	
Construction layout & as-builts	1	LS	2,500.00	2,500.00	
Maintenance of traffic	1	LS	3,000.00	3,000.00	
Erosion & sediment control	1	LS	2,500.00	2,500.00	
Clearing and grubbing	1	LS	7,000.00	7,000.00	
Sod	550	SY	5.00	2,750.00	
8" PVC	200	LF	45.00	9,000.00	
Direct bore 8" fusible PVC	2,400	LF	70.00	168,000.00	
8" Gate valve	2	EA	2,300.00	4,600.00	
Fittings	1	LS	16,000.00	16,000.00	**$231,350**

CANAVERAL GROVES BLVD
CONNECTION
ATLANTA ST
CANTON ST
DETROIT ST
ERIE ST
FELDA ST
GREENVILLE ST
SW BAYFIELD ST
BANNOCK ST
ONEIDA ST
OSAGE ST
ANGELICA ST
BREEZY POINT LN
CITRUS BLVD
VANCOUVER AVE
SHERIDAN AVE
SEVILLE AVE
LEE ST
HARTVILLE AVE
ALAN SHEPARD AVE
SW ALAN SHEPARD AVE
SW DAKOTA AVE
GRISSOM PKWY
TEMPLE ST
BAHIA ST
PINE ST
INTERSTATE 95
CANAL
STATE ROAD 528
FRIDAY LANE
FRIDAY RD
JAMES RD
COX RD

SEGMENT B
12" Water main
(replace 8" main)

LAKES AT COCOA GROVE
(PLANS UNDER DESIGN)

SEGMENT B
12" water main
(upsize from plan design)

SEGMENT B
8" reclaimed water main

SEGMENT B
8" force main

SEGMENT A
12" water main
8" reclaimed water main
8" force main

NORTH

0' 250' 500' 1000'
1 INCH = 500 FEET

LEGEND

- Existing water main & size
- Existing 12" Water main
- Existing 30" Concrete water main
- Proposed water main (Segment A)
- Proposed water main (Segment B)
- Existing Reclaimed water main
- Proposed reclaimed water main (Seg. A)
- Proposed reclaimed water main (Seg. B)
- Existing Force main
- Proposed force main (Segment A)
- Proposed force main (Segment B)

NOTES:

1. The purpose of this concept plan is to illustrate proposed utilities routes in conjunction with the cost estimates. This plan is not to be used for construction.
2. Location of all existing utilities shown is approximate only, and was provided by City of Cocoa Utilities Dept.
3. "Connection" denotes locations where smaller existing water main is connected to the existing 30" water main.
4. All existing pipe material is PVC, unless denoted otherwise.
5. Proposed utilities are shown offset, for clarity purposes.

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
JWM	GM	---	---

PROPOSED UTILITIES ROUTES

CONCEPT PLAN FOR
Friday Road Utilities Improvements
CITY OF COCOA, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 Fax:321.454.6885 WWW.DRMP.COM
DRMP, Inc.

PROJECT NO.: 21-0540.002
SCALE: 1" = 500'
DATE: APRIL 2022
DRAWING: 1 of 1

C:\Users\gmatchett\AppData\Local\Temp\AcPublish_18028\402208 Utilities Segments Sketch.dwg Plotted: Apr 04, 2022 – 7:36am by gmatchett

DRMP Standard Rate Summary:	
Title	Hourly Rate
Senior Project Manager	$ 250.00
Project Inspector	$ 145.00
Engineering Technician	$ 145.00
AutoCAD Technician	$ 145.00
Office Assistant	$ 120.00

City of Cocoa

AMENDMENT TO PURCHASE AGREEMENT

1st AMENDMENT

RFQ No. 17-16-COC

This FIRST Amendment to the purchase agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansions is made and entered into as of February 23, 2018 by and between the **City of Cocoa** and **Bussen-Mayer Engineering Group, Inc.**, 100 Parnell Street, Suite A, Merritt Island, Florida 32953.

The agreement entered into on February 23, 2018, is hereby amended to renew for the 1st of 2 renewal option available under the original contract documents for twelve (12) additional months, at the same rates, terms, and conditions commencing on February 23, 2021 and terminating on February 22, 2022

The parties hereto duly execute this FIRST Amendment to become effective as of the date and year first above written.

BUSSEN-MAYER ENGINEERING GROUP	CITY OF COCOA
By: Joseph W. Mayer	By: Jake Williams Jr. Michael C. Blake, Mayor
(Name) Printed	(Name) Printed
Pres.	Mayor
(Title)	(Title)
Signature Date	Signature 1/26/2021 Date

CC: Carie Shealy, City Clerk
Diane Kozlak, Senior Buyer & Contracts Agent
Kevin Joseph, MSCE, E.I., Utilities Associate Engineer II

Finance Department
Purchasing Division
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8775 I Fax: (321) 433-8860

CITY OF COCOA
AMENDMENT TO CONTINUING SERVICE AGREEMENT
2nd AMENDMENT
DRMP, INC.
RFQ No. 17-16-COC

This SECOND Amendment to the Continuing Service Agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansions is made between the City of Cocoa and DRMP, Inc, formerly Bussen-Mayer Engineering Group, Inc., 100 Parnell Street, Suite A, Merritt Island, FL, 32953.

The agreement entered into on February 23, 2018, is hereby amended to renew for the second of two (2) renewal options available for twelve (12) additional months, commencing on February 23, 2022 and terminating on February 22, 2023.

The agreement is also amended to change the name of acquired company Bussen-Mayer Engineering Group, Inc, to DRMP, Inc. which the City of Cocoa acknowledged on October 12, 2021. All references to Bussen-Mayer Engineering Group, Inc. are now replaced with DRMP, Inc..

All other terms, conditions, provisions, and scope of services remain unchanged. By signing below, each party indicates its approval of this Renewal Notice for Contract.

DRMP, INC.	**CITY OF COCOA**
By: Mark E. Puckett, P.E.	**By:** Michael C. Blake
(Print Name)	(Print Name)
Vice President	Mayor
(Title)	(Title)
12/29/21	
Signature / Date	Signature / Date

CC: Carie Shealy, City Clerk
Brian Dale, Purchasing / Contracts Division Manager
Jack Walsh, Director, Utilities

Finance Department
Purchasing Division
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8775 I Email: csavage@cocoafl.org

CITY OF COCOA
AMENDMENT TO CONTINUING SERVICE AGREEMENT
3rd AMENDMENT
DRMP, INC.
RFQ No. 17-16-COC

This THIRD Amendment to the Continuing Service Agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansions is made between the City of Cocoa and DRMP, Inc., formerly Bussen-Mayer Engineering Group, Inc., 100 Parnell Street, Suite A, Merritt Island, FL, 32953.

The agreement entered into on February 23, 2018, is hereby amended to extend for three (3) additional months, commencing on February 23, 2023, and terminating on May 31, 2023.

All other terms, conditions, provisions, and scope of services remain unchanged. By signing below, each party indicates its approval of this Renewal Notice for Contract.

DRMP, INC.	**CITY OF COCOA**
By: Scott Nickle	**By:** Michael C. Blake
(Name) Printed	(Name) Printed
Vice President	Mayor
(Title)	(Title)
Signature 1/24/23	Signature 2/14/2023
Date	Date

CC: Carie Shealy, City Clerk
Katherine D. "Katie" Ennis, P.E., Utilities Deputy Director
Christine Savage, Junior Buyer & Contract Specialist

Attest: Carie Shealy 2/14/23
Carie Shealy
City Clerk, City of Cocoa

Original Term: 02/23/18 - 02/22/21 - Approved by Council 12/12/17, Item V.1 17-496

1st (12 Month) Renewal Option: 02/23/21 - 02/22/22 - Approved by Council 01/26/21, Item V.2 21-72

2nd (12 Month) Renewal Option: 02/23/22 - 02/22/23

City of Cocoa

AMENDMENT TO PURCHASE AGREEMENT

1st AMENDMENT

RFQ No. 17-16-COC

This FIRST Amendment to the purchase agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansions is made and entered into as of February 23, 2018 by and between the **City of Cocoa** and **Bussen-Mayer Engineering Group, Inc.**, 100 Parnell Street, Suite A, Merritt Island, Florida 32953.

The agreement entered into on February 23, 2018, is hereby amended to renew for the 1st of 2 renewal option available under the original contract documents for twelve (12) additional months, at the same rates, terms, and conditions commencing on February 23, 2021 and terminating on February 22, 2022

The parties hereto duly execute this FIRST Amendment to become effective as of the date and year first above written.

BUSSEN-MAYER ENGINEERING GROUP

By: Joseph W. Mayer
(Name) Printed

Pres.
(Title)

Signature Date

CITY OF COCOA

By: Jake Williams Jr. Michael C. Blake, Mayor
(Name) Printed

Mayor
(Title)

Signature 1/26/2021
Date

CC: Carie Shealy, City Clerk
Diane Kozlak, Senior Buyer & Contracts Agent
Kevin Joseph, MSCE, E.I., Utilities Associate Engineer II

TERM: EXPIRES 02/22/2021
1ST Renewal Opt: 12 Month Exp:02/22/22
2nd Renewal Opt: 12 Month Exp:02/22/23

Approved By Council 12/12/17
Item: V.1 17-496

CONTINUING SERVICES AGREEMENT

Engineering Design, Permitting & Services For Construction of Utility Conveyance Systems Upgrades & Expansion

THIS CONTINUING SERVICES AGREEMENT ("Agreement") is made and entered into this 23rd day of February 2018, by and between the **City of Cocoa,** a Florida municipal corporation ("City"), located at 65 Stone Street, Cocoa, Florida 32922, and **Bussen-Mayer Engineering Group, Inc.**, a Florida corporation ("Engineer"), whose address is 100 Parnell Street, Suite A, Merritt Island, Florida 32953.

WITNESSETH:

WHEREAS, City desires to obtain engineering design, permitting and services for construction of utility conveyance systems upgrades and expansion from time to time on an as-needed, task oriented basis; and

WHEREAS, the City has followed the selection and negotiation process set forth in the Florida's Consultants' Competitive Negotiation Act, Section 287.055, Florida Statutes; and

WHEREAS, Engineer participated in the selection and negotiation process; and

WHEREAS, Engineer is willing to provide such utility engineering services to the City under the terms and conditions stated herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties covenant and agree as follows:

1.0 TERM AND DEFINITIONS

1.1 Unless sooner terminated by either Party pursuant to the terms and conditions herein, this Agreement shall terminate on the third (3rd) anniversary of the Effective Date. The Parties shall have the option to extend the term for two (2) additional one (1) year terms. Any such extension shall only be by written amendment to this Agreement executed by both parties hereto.

1.2 The terms and conditions of any Task Order, as described in Section 2.0 hereof, shall be as set forth in such Task Order. Any Task in effect at the termination of this Agreement shall remain in effect until completion of said Task Order, and all of the terms and conditions of this Agreement shall survive until completion of all Task Orders.

1.3 Definitions. The following words and phrases used in this Agreement shall have the

following meaning ascribed to them unless the context clearly indicates otherwise:

a. "Agreement" or "Contract" shall be used interchangeably and shall refer to this Continuing Services Agreement, as may be amended from time to time, which shall constitute authorization for the Engineer to provide the engineering services approved by Task Order by the City and is also sometimes referred to herein to include all Task Orders approved hereunder.

b. "Effective Date" shall be the date on which the last signatory hereto shall execute this Agreement, and it shall be the date on which this Agreement shall go into effect. The Agreement shall not go into effect until said date.

c. "Engineer" shall mean Bussen-Mayer Engineering Group, Inc., a Florida corporation, and its principals, employees, resident project representatives (and assistants).

d. "Public Record" shall have the meaning given in Chapter 119, Florida Statutes.

e. "Reimbursable Expenses" shall mean the actual expenses incurred by Engineer or Engineer's independent professional associates and consultants which are directly related to travel and subsistence at the rates, and under the requirements of, Section 112.061, Florida Statutes, or any other actual and direct expenses the City agrees to reimburse by Task Order.

f. "Work" or "Services" shall be used interchangeably and shall include the performance of the work agreed to by the parties in a Task Order.

g. "Task Order" shall mean a written document approved by the parties pursuant to the procedure outlined in Section 2.0 of this Agreement, and any amendments thereto approved pursuant to the procedures outlined in Section 3.0 herein, which sets forth the Work to be performed by Engineer under this Agreement, and shall include, without the necessity of a cross-reference, the terms and conditions of this Agreement.

1.4 Engagement. The City hereby engages the Engineer and Engineer agrees to perform the Services outlined in this agreement for the stated fee arrangement. No prior or present representations shall be binding upon any of the parties hereto unless incorporated in this Agreement.

2.0 DESCRIPTION OF SERVICES

2.1 The City shall make request of Engineer to perform engineering services on a "task" basis. The City will communicate with Engineer, verbally or in writing, a general description of the task to be performed. The Engineer will generate a detailed Scope of Work document, prepare a Schedule, add a Not-to-Exceed-Budget or Lump Sum Fee to accomplish the task with a detailed cost breakdown based on the hourly rate schedule attached hereto as **Attachment "A"**, and send the thus

developed "Task Proposal" to the City. The detailed cost breakdown of the lump sum fee shall consist of a list of major sub-tasks and a man-hour breakdown for all work to be performed. The cost breakdown shall include all sub-consultant work and the Task Proposal shall include the written price proposals from all sub-consultants. The detailed cost breakdown shall include a line item for Reimbursable Expenses and the list of the expenses proposed to be eligible for reimbursement. The City will review the Task Proposal, and if the description is mutually acceptable, the parties will enter into a written "Task Order". The Scope of Services generally to be provided by the Engineer through a Task Order may include any engineering services for any City project and may contain written terms and conditions which are deemed supplemental to this Agreement.

The City will issue a notice to proceed to the Engineer in the form of a letter and an executed City purchase order. Upon receipt of the signed Task Order and the written notice to proceed from the City, the Engineer shall perform the services set forth in the Task Order.

2.2 The City reserves the right, at its discretion, to perform any services related to this Agreement or to retain the services of other engineering companies to provide professional engineering services. Further, the City does not guarantee that any Work will be assigned to Engineer under this Agreement. The City reserves the right to assign or contract for engineering services with any party at its sole discretion. No provision of this Agreement shall be construed to require the City to assign any Work or task to Engineer under this Agreement.

2.3 The Engineer may be asked to perform any engineering services related to conveyance projects. Utility conveyance projects will be related to water supply pipelines; potable water transmission and distribution pipeline systems, storage and pump stations; wastewater collection and force main pipelines, and transfer/lift stations; and reclaimed water storage and pumping systems, transmission and distribution pipeline systems. The Services that are required for conveyance projects shall include, but are not limited to, the following:

1. Planning Evaluations/Studies
2. Geotechnical Investigations
3. Land Surveying Services/Aerial Photography
4. GIS Support
5. Materials Testing
6. Condition Assessment of Pipelines and Conveyance Systems
7. Public Information Assistance
8. Cost Estimating Services
9. Grants assistance and state/federal funding assistance
10. Permitting Services
11. SCADA services per the City's Control Systems Configuration Standards
12. Design Services
    (a) 30 percent design completion submittals

(b) 60 percent design completion submittals
(c) 90/100 percent design completion submittals

13. Bidding Support Services
14. Construction Phase Services
    a) Engineering Services During Construction such as shop drawing review, responses to requests for information and progress meetings
    b) Periodic site visits
    c) Testing
    d) Certification of construction
    e) Record drawings
    f) Resident engineer, if required
    g) Construction management and inspection, if required
    h) Startup assistance/training
    i) O&M Manual Preparation, if required.
15. Additional services as requested

Projects types that may be presented for Engineer evaluation may include, but are not limited to:

- **Project Type A-Potable water distribution pipeline project**. The project shall involve new installation or upgrade/rehabilitation of potable water distribution pipeline(s). The project shall include pipeline(s) less than 20-inches in diameter and greater than 1,000 feet of installed pipe.
- **Project Type B- Water transmission pipeline project**. The project shall involve new installation or upgrade/rehabilitation of water transmission pipeline(s), carrying either raw or finished potable water. The project shall include pipeline(s) greater than or equal to 20-inches in diameter and greater than 1,500 feet of installed pipe.
- **Project Type C- Condition assessment.** The project shall involve determining appropriate testing methods, implementing a testing plan and assessing results to determining remaining life of an asset.
- **Project Type D-Wastewater collection or transmission pipeline project.** The project shall involve new installation or upgrade/rehabilitation of a wastewater collection system (gravity) or transmission pipeline (force main). The project shall include a minimum of 500 feet of pipe installed within public rights of way.
- **Project Type E-Wastewater lift station or water pump station project.** The project shall involve a new or upgraded wastewater lift station or water pump station project. Lift station or water pump station projects shall have at least two pumps. The firm capacity of the station shall be a minimum of 300 gallons per minute.

2.4 The maximum hourly rates and certain direct charges or unit prices, as applicable, that can be charged under this Agreement by Engineer, unless otherwise agreed by the City in writing, are set forth in Engineer's Response to the City's Request for Qualifications, which is attached hereto as

Exhibit "A" and fully incorporated herein by this reference.

3.0 CHANGES IN THE SCOPE OF WORK

3.1 City may make changes in the Services at any time by giving written notice to Engineer. If such changes increase (additional services) or decrease or eliminate any amount of Work, City and Engineer will negotiate any change in total cost or schedule modifications. If the City and the Engineer approve any change, the Task Order will be modified in writing to reflect the changes; and Engineer shall be compensated for said services in accordance with the terms of Section 5.0 herein. All change orders shall be authorized in writing by City's and Engineer's designated representative.

3.2 All of City's said Task Orders and amendments thereto shall be performed in strict accordance with the terms of this Agreement insofar as they are applicable.

4.0 SCHEDULE

4.1 Engineer shall perform services in conformance with the mutually agreed schedule set forth in the negotiated Task Order. Engineer shall complete all of said services in a timely manner and will keep City apprised of the status of work on at least a monthly basis or as otherwise reasonably requested by the City. Should Engineer fall behind the agreed upon schedule, it shall employ such resources so as to comply with the agreed-upon schedule.

4.2 No extension for completion of services shall be granted to Engineer without City's prior written consent, except as provided in Sections 3.1 and 19.1 herein.

4.3 Any cost caused by defective or ill-timed services shall be borne by the party responsible therefore.

5.0 METHODS OF PAYMENT FOR SERVICES AND EXPENSES OF ENGINEER

5.1 General Services. For basic and additional Services performed by Engineer's principals, employees, and resident project representatives (and assistants) pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Engineer an amount equal to that agreed upon by the parties for a particular Task Order. However, payment terms must be consistent with the terms and conditions in this Agreement. To the extent that the payment terms in any Task Order conflict with the payment terms set forth in this Agreement, the conflicting provisions of this Agreement shall prevail.

5.2 Additional Services Performed by Professional Associates and Consultants. For additional Services and Reimbursable Expenses of independent professional associates and

consultants employed by Engineer to render additional Services pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Engineer an amount equal to that billed Engineer by the independent professional associates and consultants. Prior to payment by the City, the Engineer shall submit to the City a copy of any written invoice received by Engineer from all independent professional associates and consultants which clearly evidences the amount billed by the independent professional associates and consultants for additional Services and any Reimbursable Expenses.

5.3 Witness Services. For witness or expert services rendered by Engineer's principals, employees, resident project representatives (and assistants), and independent professional associates and consultants on behalf of the City in any litigation, arbitration, or other legal or interested administrative proceeding in which the City is a named interested party, City agrees to pay the Engineer or independent professional associate or consultant, which is used as a witness or expert, an amount equal to that agreed upon by the party for a particular Task Order.

5.4 Florida Prompt Payment Act. Payment shall be due and payable as provided by the Florida Prompt Payment Act, Section 218.70 et. seq., Florida Statutes.

5.5 Miscellaneous. Under no circumstances shall actual or direct costs under this Agreement include costs associated with inefficiency, offsite or home office overhead, loss of productivity, consequential damages, legal or consulting costs, or costs associated with delays caused in whole or in part by the Engineer.

5.6 Errors and Deficiencies. Engineer shall not invoice the City or seek any compensation from the City to correct or revise any errors or deficiencies in Engineer's services provided under this Agreement.

5.7 Payment Offsets. To the extent that Engineer owes the City any money under this or any other Agreement with the City, the City shall have the right to withhold payment and otherwise back charge the Engineer for any money owed to the City by Engineer.

5.8 Payment not Waiver. The City's payment of any invoice under this Agreement shall not be construed or operate as a waiver of any rights under this Agreement or any cause of action arising out of the performance of this Agreement and Engineer shall remain liable to the City in accordance with applicable law for all damages to the City caused by Engineer's performance of any services provided under this Agreement.

5.9 Delay Remedy. The risk of any monetary damages caused by any delays in performing the Services under this Agreement and any Task Order are accepted and assumed entirely by the Engineer, and in no event shall any claim relating thereto for an increase in compensation be made or recognized. Engineer shall not make any claim nor seek any damages of any kind against the City for any delays, impacts, disruption or interruption caused by any delay. Engineer's remedy

for a delay shall be an equitable extension of time to perform the Services for each day of such delay that impacts the critical path of the schedule established under this Agreement or specific Task Order.

5.10 Acceptance of Payment. Acceptance of final payment by the Engineer for a specific Task Order shall constitute a release of all claims for payment which the Engineer may have against the City for that Task Order unless such claims are specifically reserved in writing and transmitted to the City by the Engineer prior to its acceptance. Said final payment shall not, however, be a bar to any claims that the City may have against the Engineer or to any remedies the City may pursue with respect to such claims.

5.11 Payment Adjustments. It is agreed that payment by the City of any billing will not constitute agreement as to the appropriateness of any item and that at the time of any final audit, all required adjustments will be made and reflected in a final payment. In the event that such final audit reveals an overpayment to the Engineer, the Engineer agrees to refund such overpayment to the City within ninety (90) days of notice of any such overpayment. Such refund shall not constitute a waiver by the Engineer for any claims relating to the validity of a finding by the City of overpayment.

5.12 Partial Payments. Payment made to the Engineer shall not constitute acceptance of the work or any portion thereof which is not in accordance with this Agreement. The City retains the right to pay only that percentage of the total contract amount that equals the same percentage that work completed bears to the total amount of work required to be performed under this Agreement. If the City objects to all or any portion of any invoice, it shall notify the Engineer of the same within five (5) days from the date of receipt and shall pay that portion of the invoice not in dispute. The parties shall immediately make every effort to settle the disputed portion.

6.0 RIGHT TO INSPECTION

6.1 City or its affiliates shall at all times have the right to review or observe the Services performed by Engineer.

6.2 No inspection, review, or observation shall relieve Engineer of its responsibility under this Agreement.

7.0 PROGRESS MEETING

7.1 City's designated Project Manager may hold periodic progress meetings on a monthly basis, or more frequently if required by the City, during the term of any Task Order entered into under this Agreement. Engineer's Project Manager and all other appropriate personnel shall attend such meetings as designated by City's Project Manager.

8.0 SAFETY

8.1 Engineer shall be solely and absolutely responsible and assume all liability for the safety and supervision of its principals, employees, resident project representatives (and assistants) while performing Services provided hereunder.

9.0 REASONABLE ACCESS

9.1 During the term of this Agreement, City shall grant Engineer reasonable access to the City's premises, records, and files for purposes of fulfilling its obligations under this Agreement.

10.0 INSURANCE

10.1 Liability Amounts. During the term of this Agreement, Engineer shall be responsible for providing the types of insurance and limits of liability as set forth below.

a. Professional Liability. Proof of professional liability insurance shall be provided to the City for the minimum amount of $3,000,000.00 per occurrence and in the aggregate with a deductible not greater than $50,000.00.

b. The Engineer shall maintain comprehensive general liability insurance in the minimum amount of $1,000,000.00 as the combined single limit for each occurrence, with a deductible no greater than $5,000.00, to protect the Engineer from claims of property damages and personal injury which may arise from any Services performed under this Agreement, whether such Services are performed by the Engineer or by anyone directly employed by or contracting with the Engineer.

c. The Engineer shall maintain comprehensive automobile liability insurance in the minimum amount of $1,000,000.00 combined single limit bodily injury and minimum $50,000.00 property damage as the combined single limit for each occurrence to protect the Engineer from claims for damages for bodily injury, including wrongful death, as well as from claims from property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the Engineer or by anyone directly or indirectly employed by the Engineer.

d. The Engineer shall maintain, during the life of this Agreement, adequate Workers' Compensation Insurance and Employers' Liability Insurance in at least such amounts as are required by law for all of its employees performing Work for the City pursuant to this Agreement.

10.2 Special Requirements. Current, valid insurance policies meeting the requirements herein identified shall be maintained during the term of this Agreement. Renewal certificates shall be sent to the City thirty (30) days prior to any expiration date. There shall also be a thirty (30) day

advance written notification to the City in the event of cancellation or modification of any stipulated insurance coverage. **The City shall be an additional named insured on stipulated insurance policies included in article l0.l.b and l0.l.c herein, as its interest may appear, from time to time.**

10.3 The insurance required by this Agreement shall include the liability and coverage provided herein, or as required by law, whichever requirements afford greater coverage. All of the policies of insurance so required to be purchased and maintained shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty (30) days' prior written notice has been given to the City, and the Engineer by certified mail, return receipt requested. All such insurance shall remain in effect until final payment. In the event that the Engineer shall fail to comply with the foregoing requirement, the City is authorized, but in no event shall be obligated, to purchase such insurance, and the City may bill the Engineer. The Engineer shall immediately forward funds to the City in full payment for said insurance. It is expressly agreed that neither the provision of the insurance referred to in this Agreement nor the City's acceptance of the terms, conditions or amounts of any insurance policy shall be deemed a warranty or representation as to adequacy of such coverage. All insurance coverage shall be with insurer(s) rated as A+ by Best's Rating Guide (or equivalent rating and rating service as reasonably determined by the City Manager) and licensed by the State of Florida to engage in the business of writing of insurance or provided through the London Market for Professional Liability Insurance. The Engineer shall cause its insurance carriers, prior to the effective date of this agreement to furnish insurance certificates specifying the types and amounts of coverage in effect pursuant hereto, the expiration dates of such policies, and a statement that no insurance under such policies will be canceled without thirty (30) days' prior written notice to the City in compliance with other provisions of this Agreement. Further copies of all relevant policies will be provided to the City within thirty (30) days of the effective date of this agreement. If the City has any objection to the coverage afforded by or other provision of the insurance required to be purchased and maintained by the Engineer in accordance with this Article on the basis of its not complying with the Agreement, the City shall notify the Engineer in writing thereof within thirty (30) days of the date of delivery of such certificates to the City. For all Work performed pursuant to this Agreement, the Engineer shall continuously maintain such insurance in the amounts, type, and quality as required by the Agreement.

10.4 Independent Associates and Consultants. All independent associates and consultants employed by Engineer to perform any Services hereunder shall fully comply with the insurance provisions contained in this paragraph.

11.0 COMPLIANCE WITH LAWS AND REGULATIONS

11.1 Engineer shall comply with all requirements of federal, state, and local laws, rules, regulations, standards, and/or ordinances applicable to the performance of Services under this Agreement.

12.0 REPRESENTATIONS

12.1 Engineer represents that the Services provided hereunder shall conform to all requirements of this Agreement and any Task Order, shall be consistent with recognized and sound engineering practices and procedures; and shall conform to the customary standards of care, skill, and diligence appropriate to the nature of the Services rendered. Engineer shall perform as expeditiously as is consistent with professional skill and care and the orderly progress of the Services performed hereunder. Engineer's services shall be consistent with the time periods established under this Agreement or the applicable Task Order. Engineer shall provide City with a written schedule for services performed under each Task Order and such schedule shall provide for ample time for the City to review, for the performance of consultants (if any), and for the approval of submissions by authorities having jurisdiction over the services. The Engineer's designated representative shall have the authority to act on Engineer's behalf with respect to the Services. In addition, Engineer's representative shall render decisions in a timely manner in order to avoid unreasonable delay in the orderly and sequential progress of the Services. Except with the City's knowledge and consent, the Engineer shall not engage in any activity, or accept any employment, interest or contribution that would reasonably appear to compromise the Engineer's professional judgment with respect to the Services. The Engineer shall review laws, codes, and regulations applicable to Engineer's Services. The Engineer's services and design shall comply with all applicable requirements imposed by all public authorities. The Engineer represents and warrants that it is familiar with, and accepts that it will perform the Services hereunder in a manner that complies with all applicable requirements of law, codes, and regulations. Engineer shall be responsible for the professional quality, technical accuracy and the coordination of all plans, studies, reports and other services furnished to the City under this Agreement. Unless this Agreement is terminated by the City, or terminated by Engineer for nonpayment of any proper invoices, or the City exercises its rights to perform the Services pursuant to Section 2.2 herein, Engineer shall be responsible for the satisfactory and complete execution of the Services described in this Agreement and any Task Order. The Engineer represents that it will carefully examine the scope of services required by the City in and Task Order, that it will investigate the essential requirements of the services required by the Task Order, and that it will have sufficient personnel, equipment, and material at its disposal top complete the services set forth in the Task Order in a good professional and workmanlike manner in conformance with the requirements of this Agreement.

12.2 Engineer represents that all principals, employees, and other personnel furnishing such Services shall be qualified and competent to perform the Services assigned to them and that such guidance given by and the recommendations and performance of such personnel shall reflect their best professional knowledge and judgment.

13.0 GUARANTEE AGAINST INFRINGEMENT

13.1 Engineer guarantees that all Services performed under this Agreement shall be free from claims of patent, copyright, and trademark infringement. Notwithstanding any other provision of this Agreement, Engineer shall indemnify, hold harmless, and defend City, its officers, directors, employees, agents assigns, and servants from and against any and all liability, including expenses, legal or otherwise, for actual or alleged infringement of any patent, copyright, or trademark resulting from the use of any goods, Services, or other item provided under this Agreement. Notwithstanding the foregoing, Engineer may elect to provide non-infringing services.

14.0 DOCUMENTS

14.1 Public Records. Pursuant to Section 119.0701, Florida Statutes and other applicable public records laws, Engineer agrees that any records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics, or means of transmission, of Engineer related, directly or indirectly, to the services provided to the City under this Agreement and made or received pursuant to law or ordinance or in connection with the transaction of official business by the City, may be deemed to be a public record, whether in the possession or control of the City or the Engineer. Said records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics, or means of transmission of Engineer are subject to the provisions of Chapter 119, Florida Statutes, and may not be destroyed without the specific written approval of the City's designated custodian of public records.

IF THE ENGINEER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE ENGINEER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS, THE CITY CLERK, AT (321) 433-8484, cshealy@cocoafl.org, City Clerk's Office, 65 Stone Street, Cocoa, FL 32922.

Engineer is required to and agrees to comply with public records laws. Engineer shall keep and maintain all public records required by the City to perform the services as agreed to herein. Engineer shall provide the City, upon request from the City Clerk, copies of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law. Engineer shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term. Upon completion of the Agreement, Engineer shall transfer to

the City, at no cost, all public records in possession of the Engineer, provided the transfer is requested in writing by the City Clerk. Upon such transfer, Engineer shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. However, if the City Clerk does not request that the public records be transferred, the Engineer shall continue to keep and maintain the public records upon completion of the Agreement and shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City. Should the City not possess public records relating to this Agreement which are requested to be inspected or copied by the City or any other person, the City shall immediately notify Engineer of the request and the Engineer shall then provide such records to the City or allow the records to be inspected or copied within a reasonable time. If the Engineer does not comply with a public records request, the City may enforce this Section to the extent permitted by law. Engineer acknowledges that if the Engineer does not provide the public records to the City within a reasonable time, the Engineer may be subject to penalties under Section 119.10, Florida Statutes. The Engineer acknowledges that if a civil action is filed against the Engineer to compel production of public records relating to this Agreement, the court may assess and award against Engineer the reasonable costs of enforcement, including reasonable attorney fees. All public records in connection with this Agreement shall, at any and all reasonable times during the normal business hours of the Engineer, be open and freely exhibited to the City for the purpose of examination, audit, or otherwise. Failure by Engineer to grant such public access and comply with public records laws and/or requests shall be grounds for immediate unilateral cancellation of this Agreement by the City upon delivery of a written notice of cancellation. If the Engineer fails to comply with this Section, and the City must enforce this Section, or the City suffers a third party award of attorney's fees and/or damages for violating Chapter 119, Florida Statutes, due to Engineer's failure to comply with this Section, the City shall collect from Engineer prevailing party attorney's fees and costs, and any damages incurred by the City, for enforcing this Section against Engineer. And, if applicable, the City shall also be entitled to reimbursement of all attorneys' fees and damages which the City had to pay a third party because of the Engineer's failure to comply with this Section. The terms and conditions set forth in this Section shall survive the termination of this Agreement.

a. Reuse of Documents. All documents, including but not limited to, drawings, specifications, and data, or programs stored electronically or otherwise, prepared by the Engineer and its independent contractors and associates pursuant to this Agreement or related exclusively to the Services described herein shall be owned by the City and may be reused by the City for any reason or purpose at anytime. However, the City agrees that the aforesaid documents are not intended or represented to be suitable for reuse by the City or others on any undertaking other than the Work outlined in this Agreement. Any reuse for an undertaking other than for the Work without verification or adaptation by the Engineer, or its independent contractors and associates if necessary, to specific purposes intended will be at the City's sole risk and without liability or legal exposure to the Engineer.

b. Ownership of Documents. The City and the Engineer agree that upon payment of fees due to the Engineer by the City for a particular design, report, inventory list, compilation, drawing, specification, model, recommendation, schedule or otherwise, said design, report, inventory list, compilation, drawing, specification, technical data, recommendation, model, schedule and other instrument produced by the Engineer in the performance of this Agreement, or any Work hereunder, shall be the sole property of the City, and the City is vested with all rights therein. The Engineer waives all rights of copyright in said design, report, inventory list, compilation, drawing, specification, technical data, recommendation, model, schedule and other instrument produced by the Engineer in the performance of this Agreement, and hereby assigns and conveys the same to the City whether in the possession or control of the Engineer or not.

c. Preexisting Ownership Rights to Documents. Notwithstanding any provisions to the contrary contained in this Agreement, Engineer shall retain sole ownership to its preexisting information not produced and paid for by the City under this Agreement including, but not limited to computer programs, software, standard details, figures, templates and specifications.

15.0 ASSIGNMENT

15.1 Engineer shall not assign or subcontract this Agreement, any Task Order hereunder, or any rights or any monies due or to become due hereunder without the prior, written consent of City.

15.2 If, upon receiving written approval from City, any part of this Agreement is subcontracted by Engineer, Engineer shall be fully responsible to City for all acts and/or omissions performed by the subcontractor as if no subcontract had been made.

15.3 If City determines that any subcontractor is not performing in accordance with this Agreement, City shall so notify Engineer, which shall take immediate steps to remedy the situation.

15.4 If any part of this Agreement is subcontracted by Engineer, prior to the commencement of any Work by the subcontractor, Engineer shall require the subcontractor to provide City and its affiliates with insurance coverage as set forth by the City.

16.0 INDEPENDENT CONTRACTOR

16.1 At all times during the term of this Agreement, Engineer shall be considered an independent contractor and not an employee of the City.

17.0 DEFAULT BY ENGINEER AND CITY'S REMEDIES

17.1 The City reserves the right to revoke and terminate this Agreement, without incurring penalty, and to rescind all rights and privileges associated with this Agreement in the following circumstances, each of which shall represent a default and breach of this Agreement:

a. Engineer defaults in the performance of any material covenant or condition of this Agreement and does not cure such other default within thirty (30) calendar days after written notice from the City specifying the default complained of, unless, however, the nature of the default is such that it cannot, in the exercise of reasonable diligence, be remedied within thirty (30) calendar days, in which case the Engineer shall have such time as is reasonably necessary to remedy the default, provided the Engineer promptly takes and diligently pursues such actions as are necessary therefor; or

b. Engineer is adjudicated bankrupt or makes any assignment for the benefit of creditors or Engineer becomes insolvent, or is unable or unwilling to pay its debts; or

c. Engineer has acted grossly negligent, as defined by general and applicable law, in performing the Services hereunder; or

d. Engineer has committed any act of fraud upon the City; or

e. Engineer has made a material misrepresentation of fact to the City while performing its obligations under this Agreement; or

f. Engineer has assigned this Agreement or any Task Order without the City's prior written consent.

17.2 Notwithstanding the aforementioned, in the event of a default by Engineer, the City shall have the right to exercise any other remedy the City may have by operation of law, without limitation, and without any further demand or notice.

17.3 In the event of such termination upon default and breach of this Agreement, any completed services performed by the Engineer under this Agreement shall, at the option of the City, become the City's property and the Engineer shall be entitled to receive equitable compensation for any work completed to the satisfaction of the City. The Engineer, however, shall not be relieved of liability to the City for damages sustained by the City by reason of any breach of the Agreement, and the City may withhold any payments to the Engineer for the purpose of setoff until such time as the amount of damages due to the City from the Engineer can be determined.

18.0 TERMINATION

18.1 Notwithstanding any other provision of this Agreement, City may, upon written notice to Engineer, terminate this Agreement, without penalty, if: (a) Engineer is in default pursuant to Section 17.0; (b) Engineer fails to comply with any condition or provision of this Agreement; or (c) Engineer is experiencing a labor dispute which threatens to have a substantial, adverse impact upon performance of this Agreement, without prejudice to any other right or remedy City may have under this Agreement.

18.2 In addition, either party may terminate for convenience without penalty at any time upon thirty (30) days advance written notice.

18.3 In the event of termination, City shall be liable only for the payment of all unpaid charges, determined in accordance with the provisions of this Agreement, for Work properly performed prior to the effective date of termination.

19.0 FORCE MAJEURE

19.1 Any delay or failure of either party in the performance of its required obligations hereunder shall be excused if and to the extent caused by acts of God; fire; flood; windstorm; explosion; riot; war; sabotage; strikes (with the exception of Engineer's labor force); extraordinary breakdown of or damage to City's affiliates' generating plants, their equipment, or facilities; court injunction or order; federal and/or state law or regulation; order by any regulatory agency; or cause or causes beyond the reasonable control of the party affected; provided that prompt notice of such delay is given by such party to the other and each of the parties hereunto shall be diligent in attempting to remove such cause or causes. If any circumstance of Force Majeure remains in effect for 60 days, either party may terminate this Agreement.

20.0 GOVERNING LAW & VENUE

20.1 This Agreement is made and shall be interpreted, construed, governed, and enforced in accordance with the laws of the State of Florida. Venue for any state action or litigation shall be Brevard County, Florida. Venue for any federal action or litigation shall be Orlando, Florida.

21.0 HEADINGS

21.1 Paragraph headings are for the convenience of the parties only and are not to be construed as part of this Agreement.

22.0 SEVERABILITY

22.1 In the event any portion or part of thereof this Agreement is deemed invalid, against public policy, void, or otherwise unenforceable by a court of law, the parties shall negotiate an equitable adjustment in the affected provision of this Agreement. The validity and enforceability of the remaining parts of this Agreement shall otherwise by fully enforceable.

23.0 WAIVER AND ELECTION OF REMEDIES

23.1 Waiver by either party of any term, condition or provision of this Agreement shall not be considered a waiver of that term, condition, or provision in the future.

23.2 No waiver, consent, or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of each party hereto.

24.0 THIRD PARTY RIGHTS

24.1 Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Engineer.

25.0 PROHIBITION AGAINST CONTINGENT FEES

25.1 Engineer warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Engineer, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Engineer, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, the City shall have the right to terminate the agreement without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift, or consideration.

26.0 ENTIRE AGREEMENT

26.1 This Agreement, including any Task Orders and Schedules, Attachments, Appendix's and Exhibits attached hereto, constitute the entire agreement between City and Engineer with respect to the Services specified and all previous representations relative thereto, either written or oral, are hereby annulled and superseded.

27.0 NO JOINT VENTURE

27.1 Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties and neither party is authorized to, nor shall either party act toward third persons or the public in any manner which would indicate any such relationship with the other.

28.0 ATTORNEY'S FEES

28.1 Should any litigation arise concerning this Agreement between the parties, the parties agree to bear their own costs and attorney's fees, whether at settlement, trial or on appeal.

29.0 COUNTERPARTS

29.1 This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be considered an original agreement; but such counterparts shall together constitute but one and the same instrument.

30.0 DRAFTING

30.1 City and Engineer each represent that they have both shared equally in drafting this Agreement and no party shall be favored or disfavored regarding the interpretation of this Agreement in the event of a dispute between the parties.

31.0 NOTICE

31.1 Any notices required to be given by the terms of this Agreement shall be delivered by hand or mailed, postage prepaid to:

For Engineer:
Bussen-Mayer Engineering Group, Inc.
Attention: Joseph W. Mayer, P.E.
100 Parnell Street, Suite A
Merritt Island, FL 32953
(321) 453-0010 Phone

For City:
City of Cocoa
Attention: City Manager
65 Stone Street
Cocoa, FL 32922
(321) 433-8688 Phone
(321) 433-8698 Fax

31.2 Either party may change the notice address by providing the other party written notice of the change.

31.3 Any Notice given as provided herein shall be deemed received as follows: if delivered by personal service, on the date so delivered; if delivered to an overnight courier service, on the business day immediately following delivery to such service; and if mailed, on the third business day after mailing.

32.0 SOVEREIGN IMMUNITY

32.1 The City intends to avail itself of the benefits of Section 768.28, Florida Statutes and any other statutes and common law governing sovereign immunity to the fullest extent possible. Neither this provision nor any other provision of this Agreement shall be construed as a waiver of the City's right to sovereign immunity under Section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. Engineer agrees that City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, City shall not be liable for any claim or judgment, or portion thereof, to any one person for over two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds three hundred thousand dollars ($300,000.00). Nothing in this Agreement is intended to inure to the benefit of any third party for the purpose of allowing any claim which would otherwise be barred under the doctrine of sovereign immunity or by operation of law. This paragraph shall survive termination of this Agreement.

33.0 CORPORATE REPRESENTATIONS BY ENGINEER

33.1 Engineer hereby represents and warrants to the City the following:

a. Engineer is duly registered and licensed to do business in the State of Florida and is in good standing under the laws of Florida, and is duly qualified and authorized to carry on the functions and operations set forth in this Agreement.

b. The undersigned representative of Engineer has the power, authority, and legal right to execute and deliver this Agreement on behalf of Engineer.

34.0 INDEMNIFICATION AND LIMITATION OF LIABILITY

34.1 The Engineer shall defend, indemnify and hold the City, its elected officials, officers, employees, agents, and volunteers harmless from any and all claims, injuries, damages, losses, costs or suits, including attorney fees, arising out of or resulting from the acts, errors or omissions of the

Engineer in performance or non-performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

The Engineer specifically assumes potential liability for actions brought by the Engineer's own employees against the City and, solely for the purpose of this indemnification and defense, the Engineer specifically waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. This waiver has been specifically and mutually negotiated by the parties.

34.2 Engineer shall also indemnify and hold harmless the City, and its officers (including its City Attorneys) and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by Engineer's breach caused by other persons employed by the Engineer in the performance of the Agreement and any Task Order.

The indemnity provisions set forth in Paragraphs 34.1 and 34.2 shall be considered separate and independent indemnity provisions.

34.3 For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Engineer expresses its willingness to enter into this Agreement with the knowledge that the Engineer's recovery from the City to any action or claim arising from the Agreement is limited to a maximum amount of the sum of any Agreement amount that is owed by the City for services actually performed by the Engineer to the City's complete satisfaction, and in no case shall exceed the amount provided in article 32.1 herein. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended either to be a waiver of the limitation placed upon the City's liability as set forth in Section 768.28 Florida Statutes, or to extend the City's liability beyond the limits established in said Section 768.28 Florida Statutes; and no claim or award against the City shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.

35.0 ENGINEER'S PERSONNEL AT CONSTRUCTION SITE

35.1 The presence or duties of Engineer's personnel at a construction site, whether as onsite representatives or otherwise, do not make Engineer or Engineer's personnel in any way responsible for those duties that belong to City and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the applicable construction contract documents and any health or safety precautions required by such construction work. Engineer and Engineer's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting,

noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except Engineer's own personnel.

35.2 The presence of Engineer's personnel at a construction site is for the purpose of providing to City a greater degree of confidence that the completed work will conform generally to the applicable contract documents and that the integrity of the design concept as reflected in the contract documents has been implemented and preserved by the construction contractor(s). Engineer neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the contract documents. For this Agreement only, construction sites include places of manufacture for materials incorporated into the construction work, and construction contractors include manufacturers of materials incorporated into the construction work.

36.0 RECORD DRAWINGS

36.1 Record drawings, if required, will be prepared, in part, on the basis of information compiled and furnished by others, and may not always represent the exact location, type of various components, or exact manner in which the project was finally constructed. Engineer is not responsible for any errors or omissions in the information from others that is incorporated into the record drawings.

37.0 ADDITIONAL ASSURANCES

37.1 The Engineer for itself and its Sub-consultants, if any, certifies that:

a. No principal (which includes officers, directors, or executive) or individual holding a professional license and performing work under this Agreement is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in any architecture, landscape architecture, engineering, or surveying activity by any Federal, State, or local governmental commission, department, corporation, subdivision, or agency;

b. No principal (which includes officers, directors, or executive) or individual holding a professional license and performing work under this Agreement, employee, or agent has employed or otherwise provided compensation to, any employee or officer of the City;

c. No principal (which includes officers, directors, or executive) or individual holding a professional license and performing work under this Agreement, employee, or agent has willfully offered an employee or officer of the City any pecuniary or other benefit with the intent to influence the employee or officer's official action or judgment; and

d. The undersigned is authorized to execute this Agreement on behalf of the Engineer and said signature shall bind the Engineer to this Agreement. No further action is required by the Engineer to enter into this Agreement other than Engineer's undersigned representative's execution of the Agreement.

IN WITNESS WHEREOF, the parties hereto caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

CITY:	**ENGINEER:**
CITY OF COCOA	**BUSSEN-MAYER ENGINEERING GROUP, INC.**
By:	By:
Print Name/Title: John A. Titkanich Jr., City Manager	Print Name/Title: Joseph W. Mayer President

ATTEST:

By: _____
Carie Shealy, City Clerk

SEAL
CITY OF COCOA
FLORIDA

EXHIBIT A

Engineer's Response to City's Request for Qualifications

ATTACHMENT "A"

BUSSEN-MAYER ENGINEERING GROUP, INC.
STANDARD HOURLY RATES

Position	Rate
Chief Design Engineer	$135.00
Project Manager	$115.00
Project Engineer	$ 95.00
Surveyor	$105.00
Ecologist	$ 80.00
Engineer-Expert Witness	$150.00
Engineering Technician	$ 85.00
AutoCAD Technician	$ 70.00
2-Man Survey Crew	$100.00
Construction Inspector	$ 65.00
Clerical/Office Assistant	$ 45.00

Bussen-Mayer Engineering Group
100 Parnell St • Merritt Island, FL 32953
Phone 321/453-0010 • Fax 321/454-6885

Letter of Transmittal

To: City of Cocoa Utilities Dept.
Attn: John "Jack" Walsh, P.E., Director
351 Shearer Blvd
Cocoa, FL 32922
(Hand delivered)

Date 02/12/18

Job no. 402201

City of Cocoa Utilities Department

Copies	Description
1	Executed Contract w/ Attachment "A" hourly rates

These are transmitted:

- x For approval
- x For your use
- x As requested
- For review & comment

Comments:

Jack,
Let me know of you have any questions. Our proposed rates did not change from the previous contract.

Copy to:

Signed:

Joseph W. Mayer, P.E./ President

Office of the City Clerk
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8480 I Fax: (321) 433-8455

February 28, 2018

Bussen-Mayer Engieering Group, Inc.
ATTN: Joseph W. Mayer, P.E.
100 Parnell Street, Suite A
Merritt Island, FL 32953

Re: Continuing Services Agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansion

To Whom It May Concern:

Enclosed is a fully executed and certified copy by the City of Cocoa of the above referenced agreement for your records.

If you have any questions or need further assistance, please contact my office at (321) 433-8484.

Sincerely,

Carie Shealy, MMC
City Clerk

RESOLUTION NO. 2024-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AMENDING THE CITY OF COCOA BUDGET FOR FISCAL YEAR 2024; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Cocoa adopted the final budget for the fiscal year commencing on October 1, 2023, and ending on September 30, 2024, at a Regular meeting held on September 26, 2023; and

WHEREAS, in accordance with Article XII, Section 5 of the City of Cocoa Charter, whereby the Council may, at any time by resolution, transfer any unused and unencumbered appropriation or portion thereof from one office or department to another; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to amend its budget as provided in this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1. The 2023-2024 fiscal year budget shall be amended as detailed in the attached sheets.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, at a Regular City Council meeting assembled on the 27th day of February, 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, City Clerk

City of Cocoa Budget Adjustment Form FY 2024 - 24-059-ITF

SELECT ADJUSTMENT TYPE: INTERFUND TRANSFER | REQUESTING DEPARTMENT #: UT | DATE PREPARED: 02/22/24

'REVENUE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 97,925		WS24WP	See Tracking Sheet	$ 0	$ 0	$ 97,925	$ 0
$ 124,140		WS24LC		$ 0	$ 0	$ 124,140	$ 0
$ 1,223,744			Replenish Fund Balance (421 Budget)	$ 0	$ 0	$ 1,223,744	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 1,445,809	TOTAL						

'EXPENSE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 97,925			See Tracking Sheet	$ 0	$ 0	$ 97,925	$ 0
$ 124,140				$ 0	$ 0	$ 124,140	$ 0
$ 1,223,744		WS21CG		$ 0	$ 0	$ 1,223,744	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 1,445,809	TOTAL						

REASON/JUSTIFICATION FOR ADJUSTMENT:

This BAF is for DRMP Engineering Services during construction for both Friday and Osage/Angelina Utility Improvement Projects. Source of Funds Water Impact Fees (422) and the Original Budget (421) Project WS21CG. In addition to these two projects, the remaining funds from the Original Budget Balance in (421),total $1,223,744, which will replenish the Fund Balances in the Utility Operating Fund (421). Agenda 24-056.

Council/Board APPROVAL REQUIRED? *YES* (●) ***NO*** ( ) ***DATE APPROVED:*** 02/27/24 ***RESOLUTION #:***

City Council approval is needed for all transfers greater than $75,000 and transfers between Departments / Funds. All CRA adjustments are required to go their respective boards.

Lora Howell Digitally signed by Lora Howell Date: 2024.02.22 16:49:52 -05'00'	Dave Radford Digitally signed by Dave Radford Date: 2024.02.23 08:41:11 -05'00'	
Date Requestor's Signature	Date Finance Approval Signature	Date Finance Director's Signature
John "Jack" Walsh Digitally signed by John "Jack" Walsh Date: 2024.02.22 17:02:01 -05'00'	Lora Howell Digitally signed by Lora Howell Date: 2024.02.22 16:50:10 -05'00'	
Date Department Director's Signature	Date Deputy Fin. Director's Signature	Date City Manager's Signature

FINANCE USE ONLY:

Date Entered: _____ Entered By: _____ Group #: _____

Friday Road Road Utility Improvements - Windward WS24WP BAF#24-059-IFT 2-27-24 Agenda 24-056-ITF

Revenue

Adjustment Amount	Account	Project Number	Account Name	
$ 41,730	424-0000-381-91.21		Interfund Transfer From 421	(Sewer)
$ 56,195	422-0000-389.99-50		Fund Balance - Impact Fees 422	(Water)
$ 56,195	424-0000-381-91.42		Interfund Transfer From 422	(Water)
$ 154,120	**Total Revenue Fund 424**			
	Total Sewer	**$ 41,730**		
	Total Water	**$ 56,195**		
		$ 97,925		

Expense

$ (41,730)	421-4055-536.63-00	WS21CG	Infrustructure	(Sewer)
$ 41,730	421-4010-581-91.24		Interfund Transfer To 424	(Sewer)
$ 41,730	424-4055-536.63-00	WS24WP	Infrustructure	(Sewer)
$ 56,195	422-4010-581.91-24		Interfund Transfer to R&R (424)	(Water)
$ 56,195	424-4055-536.63-00	WS24WP	Infrustructure	(Water)
	Total Infrustructure Fund 424			
	Total Sewer	**$ 41,730**		
	Total Water	**$ 56,195**		
		$ 97,925		
$ 154,120				
	$ -			

Osage/Angelica Road Utility Improvements - Lakes at Cocoa-WS24LC

Revenue

Adjustment Amount	Account	Project Number	Account Name	
$ 73,243	424-0000-381-91.21		Interfund Transfer From 421	(Sewer)
$ 50,897	422-0000-389.99-50		Fund Balance - Impact Fees 422	(Water)
$ 50,897	424-0000-381-91.42		Interfund Transfer From 422	(Water)
$ 175,037	**Total Revenue Fund 424**			
	Total Sewer	**$ 73,243**		
	Total Water	**$ 50,897**		
		$ 124,140		

Expense

$ (73,243)	421-4055-536.63-00	WS21CG	Infrustructure	(Sewer)
$ 73,243	421-4010-581-91.24		Interfund Transfer To 424	(Sewer)
$ 73,243	424-4055-536.63-00	WS24LC	Infrustructure	(Sewer)
$ 50,897	422-4010-581.91-24		Interfund Transfer to R&R (424)	(Water)
$ 50,897	424-4055-536.63-00	WS24LC	Infrustructure	(Water)
	Total Infrustructure Fund 424			
	Total Sewer	**$ 73,243**		
	Total Water	**$ 50,897**		
		$ 124,140		
$ 175,037				

Remaining Original Budget

Original Project Budget Balance			
$ (1,223,744)	421-0000-389.99-50		Infrastructure
$ (1,223,744)	421-4055-536.63-00	WS21CG	Infrastructure

Task Order Request Form

P-Form 2021.09 Revised 07/14/2023

Engineering, Design, Permitting, & Services for Utility Conveyance Systems Upgrades & Expansions	2024-26
Name of CSA (Continuing Service Agreement)	TASK ORDER NUMBER

Date: 02/22/24 City Bid Number: RFQ-17-16-COC Amendment #4 AMOUNT: $ 97,925.00

Vendor Name: DRMP, Inc Quote/Proposal Number: 21-0540.002

Dept. Number/Division Name: 421-4055

Project Name: FRIDAY ROAD UTILITIES EXTENSTION Project Number: WS24WP

Please use this section only if you are revising the original task order, which will generate a change order.

AMENDMENT

Amendment to Original Task Order No. : Requested Amendment Amount:

Original Task Order Amount: Total Revised Amount including all Amendments:

Total number of Amendments including this one:

Scope of Services; Justification for Amendment

This Task Order is for the Friday Road Segment of the Lakes at Cocoa Groves project. In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allow for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.This TO is for Engineering Services During Construction will consist of providing construction administration, submittal review, inspections, RFI and Change Order assistance as-needed, review of testing results, as-builts, and permitting assistance for this project.

Design is Construction Related: ☑ YES ☐ NO ☐ N/A Good Faith Estimate of Construction Value: $ 2,130,760.00

Documentation for Good Faith Estimate Attached and Valid: ☑ YES ☐ NO ☐ N/A

Reference if applicable: Florida Statutes 287.055, Consultants Competitive Negotiation Act (CCNA)

Requestor Department Director

********** DO NOT WRITE BELOW THIS LINE - AUTHORIZED PERSONNEL ONLY **********

Task Order : ☑ Approved ☐ Disapproved

Refer to this Task # on all documentation: 2024-26

Council Approval Required: ☑ YES ☐ NO

Reason Disapproved:

Purchasing & Contracts Division Manager

City Manager (Purchases not to exceed $75K)

Mayor (Purchases that exceed $75K)

1) Requestor: Completes form and forwards all supporting documentation to Department Director.

2) Dept. Director reviews and approves, forwards Task Order and all supporting documentation to purchasing@cocoafl.org. (Subject Line to read: TO-VENDOR NAME Task # (if previously requested) PRICE-DEPT-DIV.)

3) Purchasing assigns Task Order Number and emails link that contains Task Order and all supporting documentation to the Purchasing Manager.

4) Purchasing Manager reviews and approves, uploads approved Task Order Form.

5) Task Order and all supporting documentation is forwarded to the City Manager for review and approval for Purchases not exceeding $75K. Approved Task Order by City Manager will be returned back to purchasing@cocoafl.org. If over $75K, Task Order and all documentation is forwarded back to Requestor who must then initiate an agenda item for City Council Approval. Once approved by City Council the City Clerk will have the Mayor sign both the Task Order Form and the Proposal if applicable and forward copies to purchasing@cocoafl.org.

6) Purchasing logs, the Task Order in the database and forwards fully executed Task Order and all supporting documentation back to Requestor.

Task Order Request Form

P-Form 2021.09 Revised 07/14/2023

Engineering, Design, Permitting, & Services for Utility Conveyance Systems Upgrades & Expansions	2024-26
Name of CSA (Continuing Service Agreement)	TASK ORDER NUMBER

Date: 02/22/24 City Bid Number: RFQ-17-16-COC Amendment #4 AMOUNT: $ 97,925.00

Vendor Name: DRMP, Inc Quote/Proposal Number: 21-0540.002

Dept. Number/Division Name: 421-4055

Project Name: FRIDAY ROAD UTILITIES EXTENSTION Project Number: WS24WP

Please use this section only if you are revising the original task order, which will generate a change order.

AMENDMENT

Amendment to Original Task Order No. : Requested Amendment Amount:

Original Task Order Amount: Total Revised Amount including all Amendments:

Total number of Amendments including this one:

Scope of Services; Justification for Amendment

This Task Order is for the Friday Road Segment of the Lakes at Cocoa Groves project. In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allow for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.This TO is for Engineering Services During Construction will consist of providing construction administration, submittal review, inspections, RFI and Change Order assistance as-needed, review of testing results, as-builts, and permitting assistance for this project.

Design is Construction Related: ☑ YES ☐ NO ☐ N/A Good Faith Estimate of Construction Value: $ 2,130,760.00

Documentation for Good Faith Estimate Attached and Valid: ☑ YES ☐ NO ☐ N/A

Reference if applicable: Florida Statutes 287.055, Consultants Competitive Negotiation Act (CCNA)

Requestor Department Director

********** DO NOT WRITE BELOW THIS LINE - AUTHORIZED PERSONNEL ONLY **********

Task Order : ☑ Approved ☐ Disapproved

Refer to this Task # on all documentation: 2024-26

Council Approval Required: ☑ YES ☐ NO

Reason Disapproved:

Purchasing & Contracts Division Manager

City Manager (Purchases not to exceed $75K)

Mayor (Purchases that exceed $75K)

1) Requestor: Completes form and forwards all supporting documentation to Department Director.

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6) Purchasing logs, the Task Order in the database and forwards fully executed Task Order and all supporting documentation back to Requestor.

Finance Department
Purchasing Division
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8775 I Fax: (321) 433-8860

CITY OF COCOA
AMENDMENT TO CONTINUING SERVICE AGREEMENT
4th AMENDMENT
DRMP, INC.
RFQ NO. 17-16-COC

This Fourth Amendment to the Continuing Services Agreement for Engineering Design, Permitting & Services for Construction of Utility Conveyance Systems Upgrades & Expansions is made between the City of Cocoa and DRMP is made and effective as of the date of last signature below.

The Agreement is hereby retroactively amended to extend the term of the Agreement for the sole purpose of authorizing DRMP to perform Construction Administration Services for the Friday Road Utilities Extension Project and the Osage/Angelica Street Utilities Extension Project. The Projects were originally designed by DRMP (Busen Mayer) pursuant to Task Order 2021-21 for the design of the Utility Extensions. The Agreement shall terminate at such time DRMP has fully completed the Construction Administration Services set forth in the two attached Task Orders (City Project: No. WS21CG; DRMP Project Number: 21-0540.002), dated February 1, 2024. No other work unrelated to the Projects will be authorized under the Agreement.

All other terms, conditions, provisions, and scope of services remain unchanged. By signing below, each party indicates its approval of this Renewal Notice for Contract.

DRMP, Inc.	**CITY OF COCOA**
By: SCOTT NICKLE	**By:** Michael Blake
(Print Name)	(Print Name)
VICE-PRESIDENT	Mayor
(Title)	(Title)
Scott Nickle 2/22/24	
Signature / Date	Signature / Date

CC: Monica Arsenault, City Clerk
Brian Dale, Purchasing / Contracts Division Manager

Legislation Details (With Text)

File #:	24-057	**Version:** 1	**Name:**		
Type:	Agenda		**Status:**	Agenda Ready	
File created:	1/30/2024		**In control:**	City Council	
On agenda:	2/27/2024		**Final action:**		
Title:	To Approve Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for Construction of the Friday Road Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not to Exceed $401,240.70 (10% of the Contract Amount) for a Total Project Cost of $4,413,647.70; To Approve a Resolution Amending the FY2024 Budget, BAF# 24-057-IFT. (Utilities Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Settlement Agreement.pdf Agreement for Utilities General Construction Contractor Atlantic.pdf 1st Amendment Atlantic Fully Ex.pdf Friday Road Quote Package.pdf Appendix B - Friday Road Bid Drawings.pdf Friday Road Quote Tabulation Sheet.pdf TO-ATLANTIC DEV 2024-10 $4,012,407.00 - UT-ENGIN.pdf Friday Rd Utilities Improvements Bid from Atlantic Development of Cocoa.pdf Contingency Resolution - Friday Road.pdf Budget Resolution Friday Road.pdf BAF 24-057-IFT-UT Friday Road UT Improvements (2-27-24)-Agenda 24-057.pdf Tracking Sheet BAF#24-057-IFT.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 30, 2024
Agenda Date: February 27, 2024
Prepared By: Katherine D. Ennis, P.E., Deputy Utilities Director
Through: John A. Walsh, P.E., Utilities Director
Requested Action:
To Approve Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for Construction of the Friday Road Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not to Exceed $401,240.70 (10% of the Contract Amount) for a Total Project Cost of $4,413,647.70; To Approve a Resolution Amending the FY2024 Budget, BAF# 24-057-IFT.

BACKGROUND:

The City of Cocoa and the Virgin Trains USA Florida, LLC executed a Settlement Implementation Agreement pursuant to two previous Development Agreements the property located at I-95 and State Road 528. The City of Cocoa has agreed to design, permit and construct water, sewer and reclaim services to this property subject to certain terms for development.

In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allows for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.

DRMP will also be perform the engineering services during construction (SDC), pending City Council approval.

On February 7, 2024, the City of Cocoa solicited quotes for the Friday Road Utilities Extension Project from three (3) continuing service contractors pre-qualified by the City of Cocoa Utilities Department under RFQ 20-18-COC City of Cocoa General Contractor - Utility Systems. The following responses were received:

- Atlantic Development of Cocoa, Inc - $4,012,407.00;
- Danus Utilities, Inc. - $4,496,664.10;
- Hinterland Group, Inc - Did Not Submit a Response.

Staff is requesting City Council approval of Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for construction of the Friday Road Utilities Improvements Project as a multi-year contract.

Staff is also requesting that City Council approve an additional $401,240.70 as contingency for the project. The additional amount is 10% of the contract amount and will be used for change orders with approval by the City Manager. Although City staff does not anticipate change orders, with a project of this size there is always a possibility of unknown obstacles in the field that would require changes to the project. If a change order is needed, the additional amount will allow the project to continue forward while minimizing delays.

The additional $401,240.70 for Construction Contingency Budget will not be added to the initial purchase order. Each change order will be reviewed by staff before it is sent to the City Manager for approval, and subsequently added to the purchase order.

Staff recommends approval of Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for construction of the Friday Road Utilities Improvements Project.

Contractor Bid	$4,012,407.00
Construction Contingency	$401,240.70 (10%)
Total Project Cost:	$4,413,647.70

STRATEGIC PLAN CONNECTION:

NA

BUDGETARY IMPACT:

Budgeted	Yes-Partially
If not budgeted, is amendment/transfer attached?	Yes

See attached Tracking Sheet for the Interfund Transfers from Funds 421, 422 and 425 to Fund 424: BAF#24-057-IFT

Amount Requested:	$4,413,648
Account Number:	424-4055-536.63-00, WS24WP
Account Name:	Infrastructure

PREVIOUS ACTION:

February 9, 2021 - Approved Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; Approved a Resolution Amending the FY2021 Budget, BAF #21-045-T

RECOMMENDED MOTION:

To Approve Task Order 2024-10 with Atlantic Development of Cocoa, Inc. for Construction of the Friday Road Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not to Exceed $401,240.70 (10% of the Contract Amount) for a Total Project Cost of $4,413,647.70; To Approve a Resolution Amending the FY2024 Budget, BAF 24-057-IFT.

powered by Legistar™

City of Cocoa
65 Stone St
Cocoa FL 32922

21/17

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Anthony A. Garganese
City Attorney of Cocoa
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802

(407) 425-9566

CFN 2019226469, OR BK 8564 PAGE 2243,
Recorded 10/16/2019 at 03:17 PM, Scott Ellis, Clerk of
Courts, Brevard County
Pgs:21

FOR RECORDING DEPARTMENT USE ONLY

SETTLEMENT IMPLEMENTATION AGREEMENT

(Residential Subdivision and Lake Amenity Excavation)

THIS SETTLEMENT IMPLEMENTATION AGREEMENT ("Agreement") is made and executed this 10th day of July, 2019, by and between the **CITY OF COCOA,** a Florida Municipal Corporation ("City"), whose address is 65 Stone Street, Cocoa, Florida 32922, and **VIRGIN TRAINS USA FLORIDA, LLC**, a foreign limited liability company organized in the State of Delaware ("Developer"), whose address is 161 NW 6th Street, Suite 900 Miami, FL 33136.

WITNESSETH:

WHEREAS, Developer has entered into a contract to purchase approximately 246 acres, more or less, of real property located north of State Road 528 and east of Highway I-95, Cocoa, Florida, more particularly described in Section 3 and depicted in Section 8 of this Agreement ("Property"); and

WHEREAS, the Property is subject to that certain City of Cocoa/Florida Space Needle, LLC Preceding Development Agreement, dated August 24, 2004 ("Preceding Development Agreement"); and

WHEREAS, the Property is also subject to that certain Stipulated Settlement Agreement entered into in Brevard County v. City of Cocoa, Case No. 05-2005-018141, which was recorded on January 9, 2008 in Official Record Book 5837, Page 2226 of Brevard County, Florida ("Stipulated Settlement Agreement"); and

WHEREAS, Developer desires to proceed with the acquisition of the Property and permit and construct a low-density residential subdivision (approx. 320 units) on the Property consistent with the terms and conditions of the Preceding Development Agreement and the

Settlement Agreement and as more specifically required by this Settlement Implementation Agreement; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties mutually agree as follows:

1.0 Recitals. The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 Authority. This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act and in furtherance of implementing the terms and conditions of the Preceding Development Agreement and Stipulated Settlement Agreement.

3.0 The Property. The real property subject to this Agreement has tax parcel identification numbers of 24-35-10-00-3 and is legally described in **EXHIBIT "A"**, attached hereto and fully incorporated herein by this reference ("Property").

4.0 Condition Precedent - Acquisition of Property by Developer. Developer represents and warrants to the City that they have entered into a binding written contract to purchase the Property ("Purchase Agreement") and that the Developer intends to expeditiously pursue the completion of the closing on the Property upon the Effective Date of this Agreement. Based on this representation and warranty to the City, Developer further represents and warrants to the City that it is empowered to negotiate and enter into this Agreement. However, the acquisition of fee title to the Property by the Developer shall be a condition precedent to the Parties commitments and obligations set forth under this Agreement. As such, Developer shall keep the City fully apprised of the status of said closing and shall faithfully and expeditiously complete the closing within ninety (90) days of the Effective Date of this Agreement ('Closing Date"). At least ten (10) days prior to the Closing Date, the Developer shall provide the City Manager and City Attorney a complete copy of the title commitment (with copies of all supporting documents) for closing on the Property so the Parties can determine whether the title commitment including the items listed on Schedule B II Exceptions causes any impediment to the completion of the subdivision of the property as depicted on the Concept Plan described in Section 8.0 of this Agreement or the excavation of the lake amenity described in the Section 10.0 of this Agreement. The City in its reasonable and sole discretion may declare any such impediment as a default and Developer shall be afforded an opportunity to cure said default under Section 29.0 of this Agreement. If Developer fails to cure said default, the City Manager, in his sole discretion and by written notice, shall have the right to terminate this Agreement. Further, if Developer fails to complete the closing by the Closing Date, the City Manager shall have the right, in his sole discretion and by written notice, to either extend the Closing Date for a reasonable time period not to exceed one (1) year to allow Developer to complete the closing, or terminate this Agreement.

5.0 Project Description and Requirements. Developer shall design, permit and construct one of the premier, upscale low-density residential subdivisions in the City of Cocoa. The subdivision shall be created and constructed in a single phase and consist of approximately

320 residential lots and homes with a minimum living area under air of one thousand five hundred (1,500) square feet and an average living area under air of one thousand eight hundred (1,800) square feet, private streets, ample private recreational common area green space and amenities, including a private Amenity Center and a proposed 38-acre, more or less, amenity lake (the "Project"). The Developer may construct the homes in accordance with a phasing plan approved by the City. The Project shall have a homeowner's association, which shall be responsible for maintaining the common areas in perpetuity. The Project shall be constructed in accordance with the requirements set forth in this Agreement.

6.0 Zoning Application. Developer acknowledges that the current City Comprehensive Plan, Future Land Use Map designation on the Property is very low-density residential with several areas subject to a conservation overlay designation. Developer agrees to comply with the current Future Land Use Map designation. However, the Property does not currently have a City zoning designation. Therefore, in furtherance of compliance with the City's Comprehensive Plan, Developer agrees to seek a City zoning designation for the Property of RU-1-7, Single-Family Residential District, which is consistent with the very low-density residential Future Land Use Map designation. Within thirty (30) days of the Closing Date, , unless an extension is granted by the City Manager for good cause, Developer agrees to submit a complete rezoning application with the City to request approval of a RU-1-7 zoning designation. The City and Developer will process the application through completion within one hundred eighty (180) days of the date that a complete application has been submitted to the City, unless an extension is required and granted by the City Council. The City agrees to process said application consistent with the requirements of the City Code and law. Nothing contained herein shall be construed or interpreted as requiring the City Council to approve said application. The City Council will consider and act upon said application at its discretion at appropriate public hearings pursuant to the requirements of law. If the RU-1-7 application is denied by the City Council, the Developer shall submit and process a different rezoning application consistent with the very-low density residential Future Land Use Map designation until such time as the City Council approves an acceptable City zoning designation for the Property. Should a different zoning district be approved, Developer acknowledges that a modification to this Agreement may be required to comply with such approved district's dimensional and/or open space requirements.

7.0 Location of Ingress/Egress Points – North and Southeast Corner of Project. Pursuant to the Stipulated Settlement Agreement, the Project shall have two public road access points. The northern access point shall be at the existing southern terminus of Bahia Street. However, Brevard County is required to choose between two options for public road access at the southeastern corner of the Project: (1) Osage/Angelica Street or (2) south along the 100-foot wide drainage canal right-of-way connecting to Grissom Road. The Parties acknowledge that the County's choice will result in a small variation to the subdivision layout of several of the residential lots proposed within the southeast corner of the Project. To account for this variation, the Parties have agreed to two alternative Conceptual Development Plans for the Project, taking into account both options as more specifically set forth in Section 8.0 of this Agreement. Upon the Effective Date of this Agreement, the Parties agree to submit the two alternative Conceptual Development Plans to the County and formally request, in writing, that

the County choose one of the public road access options for the southeastern corner of the Project as required by the Stipulated Settlement Agreement. The Parties also agree to cooperate with each other in promptly obtaining the County's decision on the chosen public road access option at the southeastern corner of the Project. In addition, until the selection is made by the County, the Parties cannot estimate with reasonable certainty the potential cost to the Developer of the public road access to the Property, including the cost of any required land (especially if the drainage canal route is selected), road improvements, drainage, signalization at the Grissom Parkway, lighting or other special roadway requirement. As such, upon selection by the County, the Developer shall work with the County to promptly ascertain, in writing, the estimated cost of public road access, and provide a written copy of the same to the City, no later than six (6) months from the date of the County's selection. If the County's selected option results in unreasonably excessive estimated roadway costs on the Developer that are not economically feasible for the Project to financially support, using reasonable and customary home building industry standards relative to the density of the Project, the Developer may request, in writing, to meet with the City Manager to discuss and negotiate an alternative Concept Plan and any necessary amendments to this Agreement that make the Project economically feasible by reasonable and customary home building industry standards. Any alternative Concept Plan and amendments to this Agreement shall require City Council approval.

8.0 Two Alternative Conceptual Development Plans; Subdivision and Site Plan Approval.

8.1 Depending on the public road access point chosen by the County at the southeastern corner of the Project, the Project shall be substantially developed in accordance with one of the applicable alternative conceptual development plans which are attached hereto as **EXHIBIT "B"** and incorporated herein by this reference (**"Concept Plan"**). The Concept Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Concept Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. Developer shall have the obligation to further submit and obtain the City's approval of a final subdivision plat, final site plan and final engineering plans (**"Final Plans"**) consistent with the Concept Plan in all material respects and in compliance with the City Code and the amenities schedule required by Section 11.0 of this Agreement. Developer acknowledges and agrees that the Concept Plan was not created with specific surveyed dimensions and that during the Final Plans process such dimensions shall be surveyed, duly engineered, and provided to the City for consideration under applicable City Codes. The Concept Plan shall be subject to reasonable adjustments at the Final Plans phase in order to bring the Project into full compliance with the City Code, and as a result, the exact location, layout and dimensions of the lots, common areas, buildings, landscaping, entrances, utilities, parking and other site improvements may vary slightly between Concept Plan approval and approval of the Final Plans. Further, additional lots greater than the number of lots depicted on the Concept Plan may be approved at the City's discretion, provided the additional lots do not reduce the proposed amount of open space and recreational areas depicted on the Concept Plan. These changes shall be allowed as long as the changes are consistent with the development standards noted in this Agreement and preserve the

general character of the development shown on the Concept Plan. The City will not unreasonably withhold approval of the Final Plans and amenities schedule.

8.2 The Parties agree that time is of the essence to complete the Project. Therefore, if the County selects public road access on Osage/Angelica Street under the Stipulated Settlement Agreement, Developer shall have eighteen (18) months after said selection to obtain Final approval of the Final Plans unless otherwise agreed by the City Council. However, if the County selects public road access south along the 100 foot-wide drainage canal right-of-way, Developer shall have eighteen (18) months from the date that the County confirms to the Parties that it has received an order of taking or otherwise acquired the necessary lands or interests to allow the public road access to obtain Final approval of the Final Plans unless otherwise agreed to by the City Council.

9.0 Public Utilities; Project Completion and Reimbursement Obligations. Pursuant to Section 4.8 of the Preceding Development Agreement, the Developer has elected not to design, permit and construct the extension of the water, sewer and reclaimed utilities to the Property ("Utilities"). Therefore, the City will design, permit and construct the extension of the Utilities up to the point(s) of connection at the boundary of the Property as determined and deemed appropriate by the City, subject to the following terms and conditions:

(1) The City will design, permit, construct and make the Utilities available to the Property no later than the date that the Developer has: (a) completed and received a final completion certificate (e.g., evidence of final written approval) from the City for all on-site infrastructure to support the Project including, but not limited to, streets, street lights, on-site utilities, sidewalks, and stormwater facilities; (b) been issued and received building permits for at least ten (10) building permits approved by the City for residential units; and (c) commenced vertical construction of the ten residential homes on the Property ("Utility Completion Date"). Prior to commencing construction of the Utilities, the City shall provide the Developer a written estimate of the Total City Utility Expenses described in Subsection (2) below.

(2) Developer shall complete construction of the Project by obtaining all required certificates of occupancies within five (5) years from the Utility Completion Date ("Project Completion Obligation"). In furtherance of the Project Completion Obligation, within ninety (90) days from the date that the City completes the Utilities, the City will deliver written notice to the Developer documenting the expenses incurred by the City to design, permit and construct the extension of the Utilities to the Property ("Total City Utility Expenses"). Within sixty (60) days of receipt of said written notice, the Developer, at its expense, shall secure the reimbursement of the Total City Utility Expenses in the event the Developer fails to fully satisfy the Project Completion Obligation by providing the City with an irrevocable stand-by letter of credit in the amount of such expenses incurred by the City. The letter of credit shall be in favor of the City and shall be issued by a bank mutually agreed to by the Parties. The letter of credit shall be in a form acceptable to the City to effectuate the reimbursement, if required due to Developer's failure to make reimbursement pursuant to Subsection (3) below. The letter of credit shall be subject to being drawn upon by the City in the event that the Developer fails to fully satisfy the Project Completion Obligation. The letter of credit shall remain in effect until

such time the City provides written notice to the Developer that they have fully satisfied the Project Completion Obligation or the City receives reimbursement pursuant to Subsection (3) below, whichever occurs sooner. However, the City agrees that Developer may proportionately reduce the value of the letter of credit by the number of certificates of occupancies granted by the City for the homes constructed in the Project. Said reduction shall occur only at twenty percent (20%) intervals of construction. The letter of credit may also be reduced on an annual basis by the amount of any home rule special assessment collected on the Property pursuant to Subsection (4) below. Any reduction of the letter of credit shall require prior written notice to the City and confirmation by the City the reduction amount is accurate.

(3) Upon failure to fully satisfy the Project Completion Obligation, the City may provide Developer written notice declaring Developer in default under this Agreement and demanding full reimbursement, within thirty (30) days, of the Total City Utility Expenses, less any credits as a result of any home rule assessments paid pursuant to Subsection (4) below, if any. If Developer fails to timely make such payment, the City shall have the right to draw upon the letter of credit required by Subsection (2) above.

(4) The City shall have the right at any time to adopt and impose a home rule special assessment on the Property, and the lots created thereon, to recover the Total City Utility Expenses. In furtherance of said right, the Developer hereby voluntarily and irrevocably consents to said assessment and that the extension of Utilities constitutes a special benefit to the Property. Developer further agrees not to directly or indirectly contest or challenge such special assessment. The assessment, if imposed by the City, will be collected and enforced in accordance with the Uniform Method of Collection and Enforcement of Non-Ad Valorem Special Assessments under Florida law. In the event that a special assessment is imposed and the City collects the full amount of the Total City Utility Expenses by assessment, the City agrees to release the letter of credit obligation in full if still in effect pursuant to Subsection (2) above.

(5) Within one hundred eighty (180) days of the County's selection of the preferred public road access described in Section 7.0, the Developer shall convey a perpetual public utilities easement upon, over and under the Property that allows the City to connect the future public utilities constructed on the Property with the Barrera Property (approx. 267 acres) located south of State Road 528. It is anticipated that the easement will be a minimum of forty (40) feet and a maximum of sixty (60) feet in width and be located generally around the area where the Developer intends to construct the conveyance system under and over State Road 528 to support the excavation of the proposed lake pursuant to Section 10.0 of this Agreement. In conjunction with the Developer's construction of the conveyance system, Developer shall fully cooperate with the City to coordinate and assist the City's plans and efforts to permit, construct and install future public utilities under State Road 528 including the installation of one or more casings, conduits or culverts to support future water, sewer and reclaimed utilities. The Parties agree that the Developer's coordination, cooperation and assistance does not constitute permission, or the requirement to gain permission, for the City to place the casing, conduit or culverts in the said area which is not owned by the Developer. The Parties acknowledge that the property is not owned by the Developer and that the City must gain the necessary permissions and permits from

the property owner (Florida Department of Transportation) and any other required regulatory entity to perform the required utility work. However, the final location and required width of the easement area shall be required to satisfy the City's reasonable and necessary future utilities needs which shall be determined by the City's Utilities Director. The easement shall be in form approved by the City Attorney. During the construction of the required utility work by the City, the City agrees to coordinate its utility activities in a manner that does not interfere with the excavation operation or the construction and operation of the proposed future Brightline rail line.

(6) The Developer shall be responsible for the design, permitting and construction of all on-site utility infrastructure required to serve the Property including, but not limited to water, sewer, reclaimed stormwater pipes, sewer lift stations and pumps, electric lines and equipment, cable lines and equipment, phone lines and equipment, gas lines and equipment and other utility pipes, lines and equipment. Should City utility policy require that certain on-site water, sewer, reclaimed or stormwater utility infrastructure be conveyed to the City upon completion by the Developer, said conveyance of any such infrastructure shall be by written bill of sale along with any warranties and maintenance bonds or letters of credit.

(7) In the event the Developer fails to convey the utility easement required by Subsection (5) above, or obtain approval of the Final Plans required by Section 8.0 of this Agreement within the time schedule set forth in Section 8.2, or if the City declares, in writing, that Developer failed to complete the lake amenity as required by Section 10.0 either upon completion of the excavation or abandonment, the City's commitment to design, permit and construct the Utilities to the Property shall terminate and thereafter, the Developer, at Developer's sole expense, shall be fully responsible for the design, permitting and construction of the Utilities to the Property in accordance with City technical specifications and standards.

10.0 Permitting and Construction of Lake Amenity. Upon the Effective Date of this Agreement, the Developer shall be allowed to submit an application with the City for an excavation permit for purposes of constructing the proposed 38-acre, more or less, lake amenity as depicted on the Conceptual Plans. The excavation permit shall be subject to Chapter 12.5 of the City Code and shall be in the form of an Excavation Permit Agreement executed by the Parties. The Excavation Permit Agreement shall be subject to the terms and conditions of this Agreement, and any other applicable state and federal laws. The commencement of excavation shall be contingent upon the Developer closing on the Property and the City's determination that the title commitment does not identify any impediment to the completion of the subdivision of the Property or the excavation of the lake amenity as provided by Section 4.0 of this Agreement. The excavation site and Property shall be maintained and secured by the Developer in a safe and sanitary condition at all times in compliance with applicable laws, administrative rules, or City Code. Notwithstanding any other terms and conditions in this Agreement and the Excavation Permit Agreement, Developer, upon completion of the excavation, shall be required to complete the lake amenity in anticipation of, or in conjunction with, the residential subdivision required by this Agreement. Should the excavation be completed before the Final Plans are approved by the City, Developer shall be required to submit, for the City's approval, plans and specifications necessary for the Developer to complete the lake amenity including, but not limited to, bank

stabilization, seeding and final contouring and shaping of the lake to support the future subdivision and accommodate the future amenities required by amenity schedule approved by the City during Final Plans approval, including landscaping, walking trails, usable open space and other pedestrian friendly recreational and beautification features. The Excavation Permit Agreement shall be in a form approved by the City Manager and City Attorney, and the City Manager is authorized to execute the Excavation Permit Agreement on behalf of the City. In order to reduce and mitigate against any potential negative impacts of the excavation on surrounding properties, the Developer agrees to employ an excavation strategy that requires the excavation materials to be removed from the Property via a conveyance system running above or underneath State Road 528 for use by the future proposed Brightline railroad route along the State Road 528 corridor. Developer has represented to the City that they are pursuing a permit from the Florida Department of Transportation to employ this excavation strategy subject to the City permitting the excavation. However, during the excavation, access to and from the Property by excavation workers and to receive delivery of equipment and materials for the excavation shall be allowed via the existing public road network as specified in the excavation permit agreement. Notwithstanding the foregoing, should Developer choose to forego or substantially reduce the scope and size of the excavation, Developer acknowledges that a modification to this Agreement may be required by the City to at least modify the Concept Plan to incorporate more upland buildable areas and recreational space.

11.0 Other Project Recreational Amenities and Enhancements. As a condition of approval of the Final Plans, Developer shall design, permit and construct, at its own expense, the following minimum schedule of Project amenities and enhancements in scope and scale to adequately support the number of residential lots required for the Project:

(1) Central Amenity Center (community clubhouse) with a feature pool, open space area with a community pavilion (picnic tables and grills) along with a state-of-the-art modern tot-lot and playground. The City prefers that the tot-lot and playground be adequately covered from sun exposure by a playground UV rated canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(2) Multi-use sports field.

(3) Multipurpose courts (convertible for volleyball, basketball, pickleball and/or tennis).

(4) Smaller common open space lots and areas throughout the community that include small playgrounds and areas with benches. The City prefers that the playground and bench areas be adequately covered from sun exposure by a UV rated playground or other canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(5) Connected multipurpose trail throughout the community that connects to all recreational common open spaces including the existing lakes and lake amenity.

(6) A streetscape design deemed acceptable by the City, which emphasizes sidewalks, connectivity within the community, tree-lined streets, and decorative street lights to add appeal and security and decorative signage.
(7) Decorative and landscaped entrance features to the Project deemed acceptable to the City which may include a restricted gated entry feature.
(8) The City prefers that the residential driveways shall be constructed of stone or brick pavers, or stamped and stained concrete. The Developer shall seriously evaluate and consider providing such driveways during the approval of Final Plans.(9) All utilities constructed on the Property including, but not limited to, electric, water, sewer, reclaimed water, cable, phone, fiber optics, natural gas and other similar kinds of utilities to service the Property shall be constructed underground unless otherwise necessary to be above ground and approved by the City. Each lot and all common landscaped areas shall be equipped with in-ground reclaimed water irrigation systems to maximize the use of the City's reclaimed water service.
(10) The Project shall incorporate the use of energy efficient lighting systems, insulation and ENERGY STAR rated windows, low-flow water fixtures, modern heat pumps, energy efficient HVAC systems, and optional roof top solar panels.

Developer may also propose additional amenities for the City's consideration and approval. All Project amenities and enhancements shall be completed and finally accepted by the City in accordance with the written amenities construction schedule approved by the City in conjunction with the approval of the Final Plans. Upon approval, the written amenities construction schedule shall automatically be deemed incorporated within and made a part of this Agreement. All Project amenities and enhancements shall be maintained in perpetuity by the homeowner's association required to be created by this Agreement.

12.0 Building Elevations and Floor Plans. As condition of approval of the Final Plans, the Developer shall submit to the City for final approval building elevations and related floor plans for the proposed homes and Central Amenity Center (community clubhouse) to be constructed on the Property. Upon approval by the City, the building elevations and related floor plans shall be deemed incorporated herein by this reference and said buildings shall be constructed substantially in accordance with the approved building elevations and floor plans. Further, other aspects of the building façade and roof lines, color scheme, and architectural features depicted on the building may have to be adjusted during the City's final review and administrative approval procedures to issue a building permit. The design of the homes and Central Amenity Center (community clubhouse) shall create one aesthetically pleasing and unified Project.

13.0 Homeowner's Association. In conjunction with the approval of the final subdivision for the Project, the Developer shall create a mandatory homeowner's association to govern the Project in accordance with Chapter 720, Florida Statutes. The association shall also be governed by the covenants and restrictions created and recorded against the Property by the Developer as required by this Agreement. A copy of the association's articles of incorporation, by-laws and recorded covenants and restrictions shall be provided to the City prior to the

approval of the final subdivision. The homeowner's association shall be responsible for the perpetual maintenance and operation of all common areas and amenities constructed for the Project, shall govern the Project in accordance with the requirements of Florida law including the recorded covenants and restrictions and by-laws of the association, have the power to levy assessments and collect HOA fees, which are used to pay for the maintenance of the community common areas and any other designated areas that are detailed in the covenants and deeds applicable to the Project.

14.0 Model Homes. The City agrees to allow the Developer or Developer's chosen homebuilder(s) (hereinafter referred to in this Section as "Builder") for the Project to construct both a sales office and up to four (4) model homes to be used for the customary temporary marketing and sales activities of the Builder. The Builder shall have the right to utilize two garages in two model home units as the temporary sales office. The City represents that such marketing and sales activities shall be permitted through buildout of the Project. The City agrees to permit early construction of the model homes prior to or after plat approval, provided that, prior to construction of the model homes, stabilized access to the model home lots and adequate means of fire protection from a City-approved source of water are completed and the following conditions, which are deemed acceptable to Builder, are adhered to:

(a) The model homes shall remain under Builder's ownership and control until such time as a final certificate of occupancy for each model home unit is issued under the conditions set forth below. In other words, the Builder shall not contract for sale, sell, or lease any of the individual model home units until such time as the City issues a final certification of occupancy for each model home unit.

(b) The model homes shall be constructed on existing or proposed lots approved by the City, and any associated parking, pedestrian activity and other activities conducted by sales staff or the general public shall be adequately segregated from construction activities to ensure safety. Parking for the model homes shall be provided in a temporary parking lot to be located in an area approved by the City, which may consist of a mulch surface. Prior to a final certificate of occupancy being issued on the last remaining model home, the mulch surface shall be removed and the area shall either be prepared for home construction, open space or recreational amenity or seeded.

(c) The model sales office shall comply with all applicable state and city regulations regarding accessibility. In addition, Builder shall provide a minimal level of access to all model homes for potential homebuyers with disabilities by providing physical access (via ramp or lift) to the primary level each model home and making photographs of other levels within each home available to the customer.

(d) Prior to construction, the model homes shall be duly permitted by the City in accordance with the City's Code. As part of the building permit application, the Builder shall submit, along with all construction plans for the units, a duly certified boundary survey which shall depict the location and legal description of each individual model lot. The Builder acknowledges and agrees that this legal description is intended to coincide with the eventual

location of the lots as depicted and legally described on the final plat. The Builder shall assume full and complete responsibility in the event that said legal descriptions do not conform to the lot lines required by the City in the final plat. The Builder fully understands the construction of model homes before final plat is approved by the City may pose a risk to the Builder if the approved plat is not consistent with the layout of model home on the subject property, and that such risk may require modification or removal of the model home based on the approved plat before a final certificate of occupancy can be issued for the model home. The Builder agrees to defend, indemnify, and hold harmless the City from and against any and all damages, losses or claims arising from the layout and construction of the model home under this Agreement prior to preliminary and final plat approval as provided further in Section 32.0 of this Agreement.

(e) At such time as the City Building Official completes and approves a final inspection of the model homes, the City will issue a temporary certificate of occupancy. Said temporary certificate of occupancy shall be issued for each model home as a whole. Occupancy of the model home units shall be limited to the sales and marketing efforts for the Project until a final certificate of occupancy is issued for such model home units. It is intended that the model homes can be shown by sales staff to prospective buyers as long as the Building Official has issued the temporary certificate of occupancy and the model is not staffed continuously.

(f) Following completion of all required plat improvements, at the request of the Builder or at such time as the Project development is completed, whichever occurs sooner, the model home units shall be converted into permanent residential units and the City shall issue final certificates of occupancy for each model home unit, provided, that the City Building Official determines that such units are suitable for permanent residential occupancy and in compliance with the City Codes.

Nothing in this Section shall cause to limit the number of inventory homes (pre-sale, spec homes) that may be constructed on the Property. Violation of this Section will also constitute a violation of the City Code of Ordinances, and the provisions of this Section may also be enforced as provided therein. Any Builder desiring to construct a model home pursuant to this Section, other than Developer, shall be provided a copy of this Section by the Developer if Builder is not the owner of the subject property on which the model home will be constructed and shall automatically be deemed to have agreed to the terms and conditions herein as a condition of the issuance of a building permit by the City even if they are not the owner or have not consented, in writing, to the term and conditions of this Section.

15.0 Representations of the Parties. The City and Developer hereby each represent and warrant to the other that it has the power and authority to execute, deliver and perform the terms and provisions of this Agreement and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the City and Developer, constitute a legal, valid and binding obligation enforceable against the parties hereto. Upon acquisition of the Property by the Developer and the recording of this Agreement in the Public Records of Brevard County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developer represents that it has voluntarily and willfully executed

this Agreement for purposes of binding himself and the Property to the terms and conditions set forth in this Agreement.

16.0 Successors and Assigns. This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developer and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

17.0 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

18.0 Amendments. This Agreement shall not be modified or amended except by written agreement duly executed by both parties hereto (or their successors or assigns) and approved by the City Council.

19.0 Entire Agreement; Exhibits; Conflicts. This Agreement, the Preceding Agreement and Stipulated Settlement Agreement and all attached exhibits thereto supersede any other agreement, oral or written, regarding the development of the Property and contain the entire agreement between the City and Developer as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference. To the extent that a conflict exists between provisions of this Agreement and the Preceding Agreement, the conflicting provisions of this Agreement shall apply. However, to the extent a conflict exists between the provisions of this Agreement and the Stipulated Settlement Agreement, the conflicting provisions of the Stipulated Settlement Agreement shall apply.

20.0 Severability. If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

21.0 Effective Date. This Agreement shall become effective upon approval by the City Council and execution of this Agreement by both parties hereto.

22.0 Recordation. Upon full execution by the Parties and the closing required by Section 4.0 of this Agreement, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City.

23.0 Relationship of the Parties. The relationship of the Parties to this Agreement is contractual and Developer and any Builder described in Section 13.0 are independent contractors and not an agent of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties or any such Builder, and neither party nor Builder is authorized to, nor shall either party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

24.0 Sovereign Immunity. Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00).

25.0 City's Police Power. Developer agrees and acknowledges that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

26.0 Interpretation. The parties hereby agree and acknowledge that they have both participated equally in the drafting of this Agreement and no party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the parties.

27.0 Third-Party Rights. This Agreement is not a third-party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third party.

28.0 Specific Performance. Strict compliance shall be required with each and every provision of this Agreement. The Parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity.

29.0 Attorney's Fees. In connection with any arbitration or litigation arising out of this Agreement, each party shall be responsible for their own attorney's fees and costs.

30.0 Development Permits. Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the Effective Date of this Agreement. The failure of this Agreement to address any particular City, County, State and/or Federal permit, condition, term or restriction shall not relieve Developer or the City of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold, suspend or terminate any and all certificates of occupancy for any building, trailer, structure or unit if Developer is in breach of any term and condition of this Agreement.

31.0 Default. Failure by either party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, an action for specific performance and/or injunctive relief. Prior to any party filing any action or exercising any remedy or right expressly provided in this Agreement as a result of a default

under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting party shall be provided a forty-five (45) day (or such other time mutually agreed to in writing by the Parties) opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action.

32.0 Termination. Except as expressly provided in this Agreement, this Agreement may only be terminated by mutual written consent of the Parties. If the Parties terminate this Agreement and the Agreement was recorded in the Official Records of Brevard County, the City shall record a notice of termination against the Property in the Official Records of Brevard County, Florida.

33.0 Indemnification and Hold Harmless. Developer shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, in consideration of the rights and benefits afforded to and accepted by the Developer hereunder, Developer hereby agrees to indemnify, release, and hold harmless the City and its councilmembers, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developer and Developer's contractor's and subcontractor's performance of design, permit and construction activities in furtherance of constructing the Project under this Agreement and the operation and maintenance of the Project thereafter. This indemnification shall survive the termination of this Agreement.

34.0 Force Majeure. The Parties agree that in the event that the failure by either party to accomplish any action required hereunder within a specified time period ("Time Period") constitutes a default under the terms of this Agreement and, if any such failure is due to any unforeseeable or unpredictable event or condition beyond the control of such party, including, but not limited to, acts of God, acts of government authority (other than the City's own acts), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such party, severe adverse weather conditions or a United States economic recession declared by the National Bureau of Economic Research that temporarily makes it commercially impractical for Developer to complete the construction of the Project and sell the required residential homes ("Uncontrollable Event"), then, notwithstanding any provision of this Agreement to the contrary except as expressly provided below, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such party was unable to perform solely due to the Uncontrollable Event. The impacted party shall give notice to the other party, stating the period of time the occurrence is expected to continue, and he extended time period shall be agreed to in writing by the Parties and said agreement shall not be unreasonably withheld by either party. The impacted party shall use diligent efforts to end the failure or delay and ensure the effects of such force majeure event are minimized. The impacted party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. A force majeure event shall not excuse the Developer's requirement to

provide and maintain in effect a letter of credit under Section 9.0 of this Agreement or a performance and maintenance bond required by City Code. In addition, a United States economic recession force majeure event shall not excuse Developer from completing the Final Plans in accordance with the time periods required by Section 8.0 of this Agreement. The Parties agree that the provisions of Section 252.363, Florida Statutes do not apply to this Agreement or are hereby waived to the extent that such provisions are deemed to apply. Notwithstanding the aforesaid, the Parties may extend any Time Period as expressly provided elsewhere in this Agreement or as otherwise mutually agreed to in writing.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

CITY OF COCOA

By: _____
Jake Williams Jr., Mayor

ATTEST:

By: _____
Carie Shealy, MMC, City Clerk

APPROVED AS TO FORM AND LEGALITY
For the use and reliance of the City of Cocoa, Florida only.

Date: 7.10.2019
By: _____
Anthony A. Garganese, City Attorney for the City of Cocoa, Florida

CITY SEAL

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness

Samantha Johnson
Printed Name of Witness

Signature of Witness

Janice Cremarosa
Printed Name of Witness

VIRGIN TRAINS USA FLORIDA, LLC

Print name and title: Patrick Goddard
President
Virgin Trains USA

Date: 6/14/19

STATE OF Florida
COUNTY OF Miami-Dade

The foregoing instrument was acknowledged before me this 14th day of June, 2019, by Patrick Goddard the President of Virgin Trains USA a Florida LLC. He is personally known to me or produced _____ as identification.

(NOTARY SEAL)

JANICE LEON
MY COMMISSION # GG 263937
EXPIRES: February 1, 2023
Bonded Thru Notary Public Underwriters

(Notary Public Signature)

Janice Leon
(Print Name)

Notary Public, State of Florida
Commission No.: GG263937
My Commission Expires: 02/01/23

DEVELOPER IS HEREBY ADVISED THAT SHOULD DEVELOPER FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COUNCIL APPROVES THIS AGREEMENT, THIS AGREEMENT SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

Exhibits:

A – Legal Description
B – Two Alternative Concept Plans

EXHIBIT "A"

Legal Description

PARCEL 1

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 329.44 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line a distance of 2266.28 feet; thence departing said North line of Section 10, South 00 degrees 32 minutes 12 seconds East, a distance of 2235.09 feet to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), along said existing North right of way line a distance of 454.64 feet; thence North 87 degrees 19 minutes 06 seconds West, a distance of 638.49 feet, to a point of curvature of a curve concave to the Northeast, having a radius of 900.00 feet a central angle of 31 degrees 18 minutes 50 seconds (Calculated measurement) 31 degrees 18 minutes 48 seconds (Deed), thence Northwesterly along the arc of said curve a distance of 491.88 (calculated measurement) 491.87 (Deed) feet; thence North 56 degrees 04 minutes 39 seconds West (Calculated measurement) North 56 degrees 00 minutes 19 seconds West (Deed), a distance of 398.70 (Calculated measurement) 398.75 (Deed) feet to a point of curvature of a non-tangent curve concave to the North having a radius of 969.79 feet, a central angle of 37 degrees 46 minutes 38 seconds, thence Northwesterly along the arc of said curve a distance of 639.42 feet, to a point on the East right of way line of State Road No. 9 (Interstate 95); thence North 00 degrees 11 minutes 53 seconds West, along said East right of way line of State Road No. 9 (Interstate 95), a distance of 566.36 feet; thence North 01 degrees 55 minutes 04 seconds West, a distance of 300.93; thence North 01 degrees 20 minutes 38 seconds West, a distance of 476.50 feet to the POINT OF BEGINNING.

LESS AND EXCEPT THE AREA FOR BORROW PIT NO. 19 AND HAUL ROAD AS SET FORTH IN CIRCUIT COURT MINUTE BOOK 57, PAGE 479, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, OTHER THAN THE REVERSIONARY INTEREST, DESCRIBED AS FOLLOWS:

BORROW PIT NO. 19

A parcel of land in the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, described as follows:

Commence on the North boundary of said Section 10, at a point 150 feet East from the Northwest corner thereof, run thence South 00 degrees 12 minutes 38 seconds East 50 feet; thence North 89 degrees 59 minutes 22 seconds East, 499.83 feet to the Northwest corner of Borrow Pit No. 19 and the POINT OF BEGINNING; continue thence North 89 degrees 59 minutes 22 seconds East 600 feet; thence South 00 degrees 00 minutes 38 seconds East 550 feet; thence South 89 degrees 59 minutes 22 seconds West 600 feet; thence North 00 degrees 00 minutes 38 seconds West 550 feet to the POINT OF BEGINNING.

AND

HAUL ROUTE FOR BORROW PIT NO. 19

That part of the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, lying South and within 50 feet of a line described as follows:

Begin at the Northwest corner of Borrow Pit No. 19 as described above, run thence South 89 degrees 59 minutes 22 seconds West 499.83 feet to the end of said line as herein described.

PARCEL 2

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2595.72 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line of Section 10 a distance of 70.51 feet, to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet; thence departing said North line South 00 degrees 32 minutes 12 seconds East, a distance of 2404.54 feet, to a point on a curve on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence along said existing North right of way line and along said curve that is concave to the South, having a radius of 5879.58 feet, a central angle of 15 degrees 41 minutes 33 seconds; thence Westerly, along the arc of said curve, a distance of 1610.32 feet; thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), a distance of 404.03 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2235.09 feet, to the POINT OF BEGINNING.

PARCEL 3

A parcel of land lying in the North Half Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2666.23 feet to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet, to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 56 seconds East, along said North line of said Section 10, a distance of 738.58 feet to the Northeast corner of Section 10; thence South 00 degrees 32 minutes 12 seconds East, along the East line of said Section 10, a distance of 2602.18 feet, to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence North 74 degrees 59 minutes 21 seconds West, along said existing North right of way line, a distance of 693.63 feet, to a point of curvature of a curve concave to the South, having a radius of 5879.58 feet, a central angle of 00 degrees 42 minutes 35 seconds, thence Westerly, along the arc of said curve, a distance of 72.84 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2404.54 feet, to the POINT OF BEGINNING.

PARCEL 4

A parcel of land being the North 290 feet of the Southwest One Quarter of Section 12, Township 24 South, Range 35 East, Tallahassee Base Meridian, Brevard County, Florida, lying West of the Westerly right of way of Grissom Parkway, being part of the lands described in Official Records Book 549, Page 354 and being more particularly described by meets and bounds as follows:

Commence at a concrete monument occupying the Northwest corner of the Southwest One-Quarter of aforesaid Section 12; thence South 00 degrees 15 minutes 49 seconds East, along the West line of the Southwest One Quarter, a distance of 290.01 feet; thence South 89 degrees 54 minutes 34 seconds East, parallel to and 290.00 feet South of the North line of the Southwest One-quarter, a distance of 501.02 feet to a point on the Westerly right of way line of Grissom Parkway, said point lying on a radial circular curve, concave to the Northwest, having a radius of 1705.02 feet and a central angle of 11 degrees 38 minutes 02 seconds; thence Northwesterly, along said Westerly right of way line and the arc of said curve a distance of 346.20 feet (chord bearing North 32 degrees 51 minutes 07 seconds West) to the North line of the Southwest One-Quarter; thence North 89 degrees 54 minutes 34 seconds West, along said North line, a distance of 314.89 feet to the POINT OF BEGINNING.

LESS AND EXCEPT that portion conveyed to Brevard County Board of County Commissioners recorded in Official Records Book 2923, Page 1070; and in Official Records Book 2923, Page 1073, all of the Public Records of Brevard County, Florida.

PARCEL 5

The West 318 feet of the South Half of the South Half of the South Half of the North Half, LESS the North 30 feet for road and LESS the South 100 feet and the West 100 feet for canal, Section 11, Township 24 South, Range 35 East, Brevard County, Florida. Also known as Tract 6, Block 16, CANAVERAL GROVES SUBDIVISION, according to the Map thereof, as recorded in Survey Book 2, Page 621, Brevard County, Florida.

EXHIBIT
B
Page 1 of 2

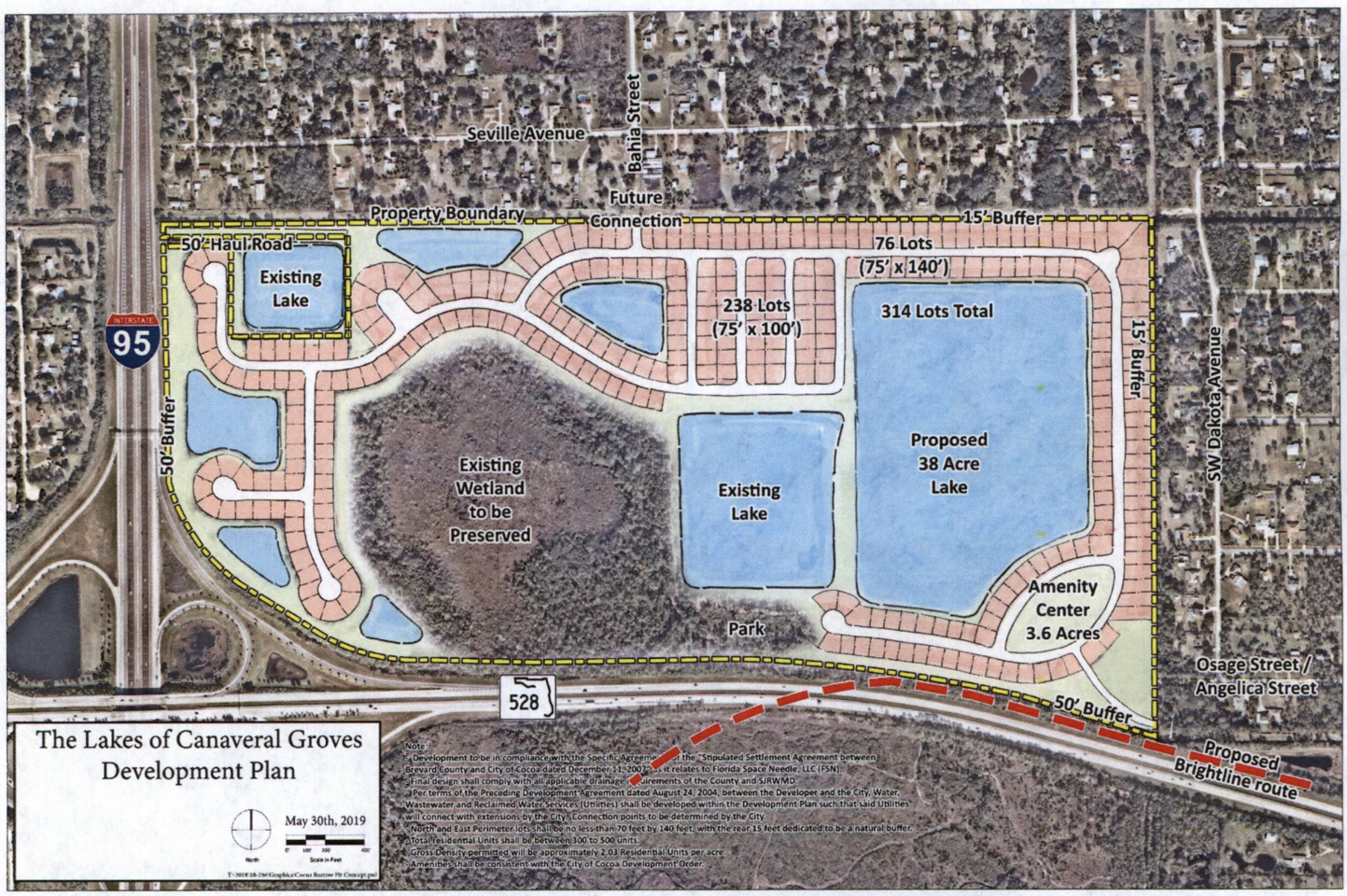
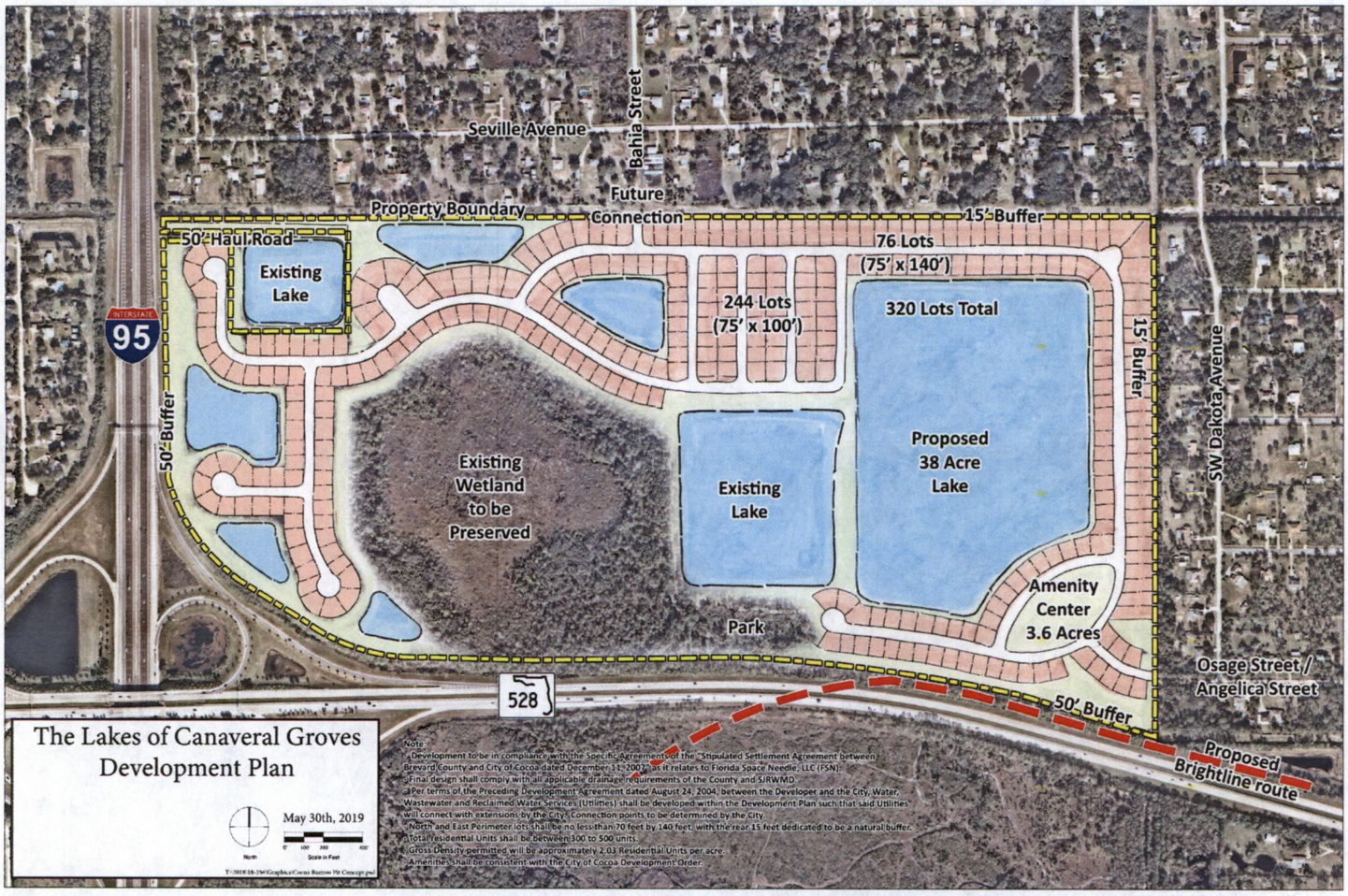


EXHIBIT
B
Page 2 of 2



The Lakes of Canaveral Groves Development Plan

May 30th, 2019

North

Scale in Feet

T:\2018\18-256\Graphics\Cocoa Burrow Plt Concept.psd

Note:

- Development to be in compliance with the Specific Agreement of the "Stipulated Settlement Agreement between Brevard County and City of Cocoa dated December 11, 2002, as it relates to Florida Space Needle, LLC (FSN)."
- Final design shall comply with all applicable drainage requirements of the County and SJRWMD.
- Per terms of the Preceding Development Agreement dated August 24, 2004, between the Developer and the City, Water, Wastewater and Reclaimed Water Services (Utilities) shall be developed within the Development Plan such that said Utilities will connect with extensions by the City. Connection points to be determined by the City.
- North and East Perimeter lots shall be no less than 70 feet by 140 feet, with the rear 15 feet dedicated to be a natural buffer.
- Total residential Units shall be between 300 to 500 units.
- Gross Density permitted will be approximately 2.03 Residential Units per acre.
- Amenities shall be consistent with the City of Cocoa Development Order.

AGREEMENT FOR UTILITIES
GENERAL CONSTRUCTION CONTRACTOR

THIS AGREEMENT is made and entered into this 9th day of November, 2020, by and between the **CITY OF COCOA, FLORIDA**, a Florida Municipal Corporation, hereinafter referred to as "City", located at 65 Stone Street, Cocoa 32922, and **ATLANTIC DEVELOPMENT OF COCOA, Inc.** 2185 West King Street, Cocoa, Florida 32926, hereinafter referred to as "Utility Contractor".

WITNESSETH:

WHEREAS, City wishes to obtain underground utility services on a continuing basis; and

WHEREAS, the City has followed the selection and negotiation process set forth in the Florida's Consultants' Competitive Negotiation Act, Section 287.055, *Florida Statutes;* and

WHEREAS, Utility Contractor participated in the selection and negotiation process and Utility Contactor was one of several contractors chosen by the City Council at a duly held meeting on October 27, 2020 to perform future services on an as needed basis; and

WHEREAS, Utility Contractor is willing to provide such underground utility services to the City under the terms and conditions stated herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties covenant and agree as follows:

1.0 TERM AND DEFINITIONS

1.1 Unless sooner terminated by either Party pursuant to the terms and conditions herein, this Agreement shall terminate on the third (3rd) anniversary of the Effective Date. This Agreement may be renewed by mutual agreement of the Parties for a maximum of two (2) separate two (2) year renewal terms.

1.2 The terms and conditions of any Task Authorization, as described in Section 2 hereof, shall be as set forth in such Task Authorization. Any Task Authorization in effect at the termination of this Agreement shall remain in effect until completion of said Task Authorization, and all of the terms and conditions of this Agreement shall survive until completion of all Task Authorizations.

1.3 Definitions. The following words and phrases used in this Agreement shall have the following meaning ascribed to them unless the context clearly indicates otherwise:

A. "Agreement" or "Contract" shall be used interchangeably and shall refer to this Agreement, as amended from time to time, which shall constitute authorization for the Utility Contractor to provide the construction services approved by Task Authorization by the City.

B. "Effective Date" shall be the date on which the last signatory hereto shall execute this Agreement, and it shall be the date on which this Agreement shall go into effect. The Agreement shall not go into effect until said date.

C. "Utility Contractor" shall mean **Atlantic Development of Cocoa Inc.,** and its principals, employees, resident project representatives (and assistants).

D. "Public Record" shall have the meaning given in Section 119.011(1), *Florida Statutes*.

E. "Reimbursable Expenses" shall mean the actual expenses incurred by Utility Contractor or Utility Contractor's independent professional associates and consultants which are directly related to travel and subsistence at the rates, and under the requirements of, Section 112.061, Florida Statutes, or any other actual expenses the City agrees to reimburse by Task Authorization.

F. "Work" or "Services" shall be used interchangeably and shall include the performance of the work agreed to by the parties in a Task Authorization.

G. "Task Authorization" shall mean a written document approved by the parties pursuant to the procedure outlined in paragraph 2.0 of this Agreement, and any amendments thereto approved pursuant to the procedures outlined in paragraph 3.0 herein, which sets forth the Work to be performed by Utility Contractor under this Agreement.

2.0 DESCRIPTION OF SERVICES

2.1 The City shall make request of Utility Contractor to perform underground utility services on a "Task" basis. The City will communicate with Utility Contractor, verbally or in writing, a general description of the task to be performed. The Utility Contractor will generate a detailed Scope of Work document, prepare a Schedule, add a Not-to-Exceed-Budget or Lump Sum Fee to accomplish the task, and send the thus developed "Task Proposal" to the City. If a site visit by Utility Contractor is needed to generate the scope document, Utility Contractor shall request approval prior to visiting the site. The City will review the Task Proposal, and if the description is mutually acceptable, the parties will enter into a written "Task Authorization". The Scope of Services generally to be provided by the Utility Contractor through a Task Authorization may include any phases of utility construction. These phases are more clearly defined in the attached **Exhibit "A".** Nothing herein shall be construed to guarantee that Utility Contractor will be assigned a Task.

2.2 The City will issue a Notice to Proceed to the Utility Contractor in the form of a City purchase order. Upon receipt of the signed Task Authorization and a written Notice to Proceed from the City, the Utility Contractor shall perform the services set forth in the Task Authorization.

2.3 For each Task Authorization in excess of $25,000.00, Utility Contractor shall supply a materials, performance and payment bond(s) in accordance with Florida law and in substantially in conformance with the form attached to the Agreement **Exhibit "B"** and

approved by the City Attorney. The materials, performance, and payment amounts shall be in an amount equal to the total Contract Price for the Work required by the Task Authorization. The issuance of bonds required under this Agreement shall not relieve Utility Contractor of any liability under the Agreement and any applicable Task Authorization. Utility Contractor shall remain jointly and severally liable with any surety issuing a bond under the Task Authorization. The premium for such bonds shall be paid by the Utility Contractor.

3.0 CHANGES IN THE SCOPE OF WORK

3.1 City may make changes in the Services at any time by giving written notice to Utility Contractor. If such changes increase (additional services) or decrease or eliminate any amount of work, City and Utility Contractor will negotiate any change in total cost or schedule modifications. If the City and Utility Contractor approve any change(s), the Task Authorization will be modified in writing to reflect the change(s); and Utility Contractor shall be compensated for said service(s) in accordance with the terms of Article 5.0 herein. All change orders shall be authorized in writing by City's and Utility Contractor's designated representative.

3.2 All of City's said Task Authorizations and amendments thereto shall be performed in strict accordance with the terms of this Agreement insofar as they are applicable.

4.0 SCHEDULE; LIQUIDATED DAMAGES

4.1 Utility Contractor shall perform services in conformance with the mutually agreed schedule set forth in the negotiated Task Authorization. The parties acknowledge that the agreed upon schedule provided in this Section includes consideration of adverse weather conditions common to Central Florida including the possibility of hurricanes and tropical storms. Utility Contractor shall complete all of said services in a timely manner and will keep City apprised of the status of work on at least a weekly basis or as otherwise reasonably requested by the City. Should Utility Contractor fall behind the agreed upon schedule, it shall employ such resources so as to comply with the agreed-upon schedule.

4.2 No extension for completion of services shall be granted to Utility Contractor without City's prior written consent, except as provided in Sections 3.1 and 20.1 herein.

4.3 Unless otherwise expressly provided in the Task Authorization, City and Utility Contractor recognize that time is of the essence of this Agreement and that City will suffer financial loss if the Work required by a Task Authorization is not substantially complete within the time specified therein, plus any extensions thereof allowed in accordance with a written change order. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by City if the Work is not substantially completed on time. Accordingly, instead of requiring any such proof, City and Utility Contractor agree that as liquidated damages for delay (but not as a penalty) Utility Contractor shall pay City five hundred dollars ($500.00) per day for each day that expires after the time specified in the applicable Task Authorization for both substantial and final completion until the work is completed within said time period, and that City has paid to the Utility Contractor the consideration of ten ($10.00) dollars as consideration for this provision.

The liquidated damages shall be payable in addition to any excess expenses or costs payable by the Utility Contractor to the City under this Agreement and applicable Task Authorization, and shall not preclude the recovery of damages by the City under other provisions of the Agreement, except claims related to Utility Contractor's delays in substantial completion. The City's right to receive liquidated damages shall in no manner affect the City's right to terminate the Agreement or any applicable Task Authorization, as provided in this Agreement or elsewhere in the Task Authorization. The City's exercise of the right to terminate shall not release the Utility Contractor from the obligation to pay said liquidated damages.

When the City reasonably believes (i) that substantial completion will be inexcusably delayed; or (ii) that the Utility Contractor will fail to achieve final completion by the date of final completion, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Utility Contractor the daily amount specified for liquidated damages for each calendar day of the unexcused delay. If and when the Utility Contractor overcomes the delay in timely achieving substantial completion or final completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Utility Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.0 METHODS OF PAYMENT FOR SERVICES AND EXPENSES OF UTILITY CONTRACTOR

5.1 General Services. For basic and additional Services performed by Utility Contractor's principals, employees, and resident project representatives (and assistants) pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Utility Contractor an amount equal to that agreed upon by the parties for a particular Task Authorization.

5.2 Additional Services Performed by Professional Associates and Consultants. For additional Services and Reimbursable Expenses of independent professional associates and consultants employed by Utility Contractor to render additional Services pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Utility Contractor an amount equal to that billed Utility Contractor by the independent professional associates and consultants multiplied by a factor of 1.10. Prior to payment by the City, the Utility Contractor shall submit to the City a copy of any written invoice received by Utility Contractor from all independent professional associates and consultants which clearly evidences the amount billed by the independent professional associates and consultants for additional Services and any Reimbursable Expenses.

5.3 Witness Services. For witness or expert services rendered by Utility Contractor's principals, employees, resident project representatives (and assistants), and independent professional associates and consultants on behalf of the City in any litigation, arbitration, or other legal or interested administrative proceeding in which the City is a named interested party, City agrees to pay the Utility Contractor or independent professional associate or consultant, which is used as a witness or expert, an amount equal to that agreed upon by the party for a particular Task Authorization.

5.4 Reimbursable Expenses. In addition to payments provided in paragraphs 5.1, 5.2 and 5.3 above, City agrees to pay Utility Contractor the actual cost of all Reimbursable Expenses incurred in connection with any Task Authorization.

5.5 Payment. Upon receipt of a proper invoice from Utility Contractor, the City agrees to pay the Utility Contractor the invoice amount providing said amount accurately reflects the terms and conditions of this Agreement and any applicable Task Authorization. Invoices may only be submitted on a monthly basis unless otherwise agreed by the City. Unless otherwise agreed in writing by the City, there shall be no other compensation paid to the Utility Contractor and its principals, employees, resident project representatives (and assistants), and independent professional associates and consultants in the performance of Work under this Agreement. The City agrees to make all payments due within thirty (30) days of receipt of a proper invoice delivered by Utility Contractor.

5.6 Witholding Payments. Progress payments may be withheld if:

a. Work is found defective and not remedied;

b. Utility Contractor does not make prompt and proper payments to subcontractors;

c. Utility Contractor does not make prompt and proper payments for labor, materials, or equipment furnished him;

d. Another Contractor is damaged by an act for which Utility Contractor is responsible;

e. Claims or liens are filed on the job; or

f. In the opinion of the City, Utility Contractor's work is not progressing satisfactorily.

5.7 **Final Payment.** The City shall withhold up to 5% of the Contract Price set forth in any Task Authorization throughout the subject project in accordance with the Local Government Prompt Payment Act ("Act"). City shall promptly make payment to the Utility Contractor unless the City has grounds, under the Act, for withholding the payment of the retainage. The remaining retainage amount withheld shall be released with the Final Payment after the issuance of the Final Completion Certificate. City shall make final payment to Utility Contractor within thirty (30) days after the work is fully and properly completed, if the contract has been fully and timely performed, but subject to the condition that final payment shall not be due until Utility Contractor has delivered to CITY a complete release of liens arising out of the Task Authorization, or receipt of releases of lien fully covering all labor, materials and equipment for which a lien could be filed, or in the alternative a bond satisfactory to City indemnifying him against such claims.

By making payments, City does not waive claims including but not limited to those relating to:

a. Faulty work appearing after substantial completion has been granted;

b. Work that does not comply with the Task Authorization and this Agreement;

c. Outstanding claims of liens; or

d. Failure of Utility Contractor to comply with any special guarantees required by the Agreement and applicable Task Authorization.

6.0 RIGHT TO INSPECTION

6.1 City or its affiliates shall at all times have the right to review or observe the services performed by Utility Contractor. The City shall be given free access to the worksite at all times during work preparation and progress. The City's Project Manager is not obligated to make exhaustive or continuous onsite inspections to perform his or her duties of checking and reporting on work progress, and any such inspections shall not waive City's claim regarding defective work by Utility Contractor.

6.2 No inspection, review, or observation shall relieve Utility Contractor of its responsibility under this Agreement. The City will not be responsible for the means of construction, or for the sequences, methods and procedures used therein, or for the Utility Contractor's failure to perform the work in accordance with the applicable Task Authorization and this Agreements.

7.0 PROGRESS MEETING

7.1 City's Project Manager may hold periodic progress meetings on a monthly basis, or more frequently if required by the City, during the term of work entered into under this Agreement. Utility Contractor's Project Manager and all other appropriate personnel shall attend such meetings as designated by the City's Project Manager. The City's review, inspection, or approval of any Work, applications for payment, or other submittals shall be solely for the purpose of determining whether the same are generally consistent with the City's scope and requirements for the Project. No review, inspection, or approval by the City of such Work or documents shall relieve the Utility Contractor of its responsibility for the performance of its obligations under the applicable Task Authorization or the accuracy, adequacy, fitness, suitability, or coordination of the Work. Approval by any governmental or other regulatory agency or other governing body of any Work, design document, or construction document shall not relieve Utility Contractor of responsibility for the performance of its obligations under this Agreement and applicable Task Authorization. Payment by the City pursuant to the this Agreement shall not constitute a waiver of any of the City's rights under this Agreement or at law, and the Utility Contractor expressly accepts the risk that defects in its performance, if any, may not be discovered until after payment, including final payment, is made by the City. Notwithstanding the foregoing, prompt written notice shall be given by the City or City Project Manager to the Utility Contractor if the City becomes aware of any fault or defect in the subject Project or non-conformance with this Agreement and applicable Task Authorization. Furthermore, the City shall not have control or charge of construction means, methods,

techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, nor shall the Utility Contractor, for any of the foregoing purposes, be deemed the agent of the City.

8.0 RESPONSIBILITIES OF CONTRACTOR The Utility Contractor's duties and rights in connection with any Task Authorization issued by the City herein are as follows:

8.1 Responsibility for Supervision and Construction. Utility Contractor shall be solely responsible for all construction under the Task Authorization, including the techniques, sequences, procedures and means, for the coordination of all work. Utility Contractor shall supervise and direct the work, and give it all attention necessary for such proper supervision and direction.

8.2 Discipline and Employment. Utility Contractor shall maintain at all times strict discipline among his employees, and he agrees not to employ for work on the project any person unfit or without sufficient skill to perform the job for which he was employed.

8.3 Furnishing of Labor, Materials, etc. Utility Contractor shall provide and pay for all labor, materials and equipment, including tools, construction equipment and machinery, utilities, including water, transportation, and all other facilities and work necessary for the proper completion of work on the project in accordance with this Agreement and Task Authorization.

8.4 Payment of Taxes: Procurement of Licenses and Permits. Utility Contractor shall secure all licenses and permits necessary for proper completion of the work, paying the fees thereof. Utility Contractor warrants that it (and subcontractors or tradesmen, if authorized in the Task Authorization) hold or will secure all trade or professional licenses required by law for the Utility Contractor to undertake the Work required by the Task Authorization.

8.5 Guarantee. The Utility Contractor hereby guarantees the Work to the full extent provided in the Task Authorization and any applicable Plans, Specifications, General Conditions, Special Conditions and other contract documents. The Utility Contractor shall remove, replace and/or repair at its own expense and at the convenience of the City any faulty, defective or improper Work, materials or equipment discovered within one (1) year from the date of the acceptance of the project as a whole by the City or for such longer period as may be provided in the applicable Task Authorization, Plans, Specifications, General Conditions, Special Conditions or other contract documents. Without limiting the generality of the foregoing, the Utility Contractor warrants to the City, that all materials and equipment furnished under this Agreement and Task Authorizations will be of first class quality and new, unless otherwise required or permitted by the applicable Task Authorization, that the Work performed pursuant to this Agreement will be free from defects and that the Work will strictly conform with the requirements of the Task Authorization. Work not conforming to such requirements, including substitutions not properly approved and authorized, shall be considered defective. All warranties contained in this Agreement and in the Task Authorization shall be in addition to and not in limitation of all other warranties or remedies required and/or arising pursuant to applicable law. Furthermore, Utility Contractor will provide written guarantee for work and materials for a minimum of one (1) calendar year after acceptance by City unless a longer time period is

required by a Task Authorization. The one (1) period is not a limitation upon manufacturer warranties or Utility Contractor's payment and performance Bond(s).

8.6 Preparation/Sufficiency of Site. The Utility Contractor shall, among other things, and as applicable: (i) visit and thoroughly inspect the Project Sites and any structure(s) or other man-made features to be modified and become familiar with local conditions under which the Project will be constructed and operated; (ii) familiarize itself with any provided survey, including the location of all existing buildings, utilities, conditions, streets, equipment, components, and other attributes having or likely to have an impact on the Project; (iii) familiarize itself with the City's layout and design requirements, conceptual design objectives, and budget for the Projects; (iv) familiarize itself with pertinent Project dates, including the Project Schedule; (v) review and analyze all Project geotechnical, hazardous substances, structural, chemical, electrical, mechanical, and construction materials tests, investigations, and recommendations; and (vi) gather any other information necessary for a thorough understanding of the Project. If the Project involve modifications to any existing structure(s) or other man-made feature(s) on the Project Site, the Utility Contractor shall also review all as-built and record drawings, plans, and specifications of which the Utility Contractor has been informed by the City, and shall thoroughly inspect the existing structure(s) and man-made feature(s) to identify existing deficiencies and ascertain the specific locations of pertinent structural components. Claims by the Utility Contractor resulting from its failure to familiarize itself with the Project Sites or pertinent documents shall be deemed waived.

8.7 Safety. Utility Contractor shall be solely and absolutely responsible and assume all liability for the safety and supervision of its principals, employees, resident project representatives (and assistants) while performing Services provided hereunder.

9.0 REASONABLE ACCESS

9.1 During the term of this Agreement, City shall grant Utility Contractor reasonable access to the City's premises, records, and files for purposes of fulfilling its obligations under this Agreement.

10.0 INSURANCE

10.1 Liability Amounts. During the term of this Agreement, Utility Contractor shall be responsible for providing the types of insurance and limits of liability as set forth below.

A. Professional Liability: If professional services are rendered under any Task Authorization, proof of professional liability insurance shall be provided to the City for the minimum amount of $1,000,000 as the combined single limit for each occurrence.

B. The Utility Contractor shall maintain comprehensive general liability insurance in the minimum amount of $2,000,000 as the combined single limit for each occurrence to protect the Utility Contractor from claims of property damages which may arise from any Services performed under this Agreement whether such Services are performed by the Utility Contractor or by anyone directly employed by or contracting with the Utility Contractor.

C. The Utility Contractor shall maintain comprehensive automobile liability insurance in the minimum amount of $1,000,000 combined single limit bodily injury and minimum $50,000 property damage as the combined single limit for each occurrence to protect the Utility Contractor from claims for damages for bodily injury, including wrongful death, as well as from claims from property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the Utility Contractor or by anyone directly or indirectly employed by the Utility Contractor.

D. Utility Contractor shall maintain, during the life of this Agreement, adequate Workers' Compensation Insurance and Employers' Liability Insurance in at least such amounts as are required by law for all of its employees performing Work for the City pursuant to this Agreement.

10.2 Special Requirements. Current, valid insurance policies meeting the requirements herein identified shall be maintained during the term of this Agreement. Renewal certificates shall be sent to the City thirty (30) days prior to any expiration date. There shall also be a 30-day advance written notification to the City in the event of cancellation or modification of any stipulated insurance coverage. **With the exception of any required professional insurance policy hereunder, the City shall be an additional named insured on all stipulated insurance policies as its interest may appear, from time to time.**

10.3 Independent Associates and Consultants. All independent associates and consultants employed by Utility Contractor to perform any Services hereunder shall fully comply with the insurance provisions contained in this paragraph.

11.0 COMPLIANCE WITH LAWS AND REGULATIONS

11.1 Utility Contractor shall comply with all requirements of federal, state, and local laws, rules, regulations, standards, and/or ordinances applicable to the performance of Services under this Agreement.

12.0 REPRESENTATIONS

12.1 Utility Contractor represents that the Services provided hereunder shall conform to all requirements of this Agreement and any Task Authorization, shall be consistent with recognized and sound construction practices and procedures; and shall conform to the customary standards of care, skill, and diligence appropriate to the nature of the Services rendered.

12.2 Utility Contractor represents that all principals, employees, and other personnel furnishing such Services shall be qualified and competent to perform the Services assigned to them and that such guidance given by and the recommendations and performance of such personnel shall reflect their best professional knowledge and judgment.

13.0 GUARANTEE AGAINST INFRINGEMENT

13.1 Utility Contractor guarantees that all Services performed under this Agreement shall be free from claims of patent, copyright, and trademarks infringement. Notwithstanding

any other provision of this Agreement, Utility Contractor shall indemnify, hold harmless, and defend City, its officers, directors, attorneys, employees, agents assigns, and servants from and against any and all liability, including expenses, legal or otherwise, for actual or alleged infringement of any patent, copyright, or trademark resulting from the use of any goods, Services, or other item provided under this Agreement. Notwithstanding the foregoing, Utility Contractor may elect to provide non-infringing services.

14.0 DOCUMENTS

14.1 Public Records. Pursuant to Section 119.0701, Florida Statutes and other applicable public records laws, Utility Contractor agrees that any records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics or means of transmission, of Utility Contractor related, directly or indirectly, to the services provided to the City under this Agreement and made or received pursuant to law or ordinance or in connection with the transaction of official business by the City, may be deemed to be a public record, whether in the possession or control of City or the Utility Contractor. Said records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics or means of transmission of Utility Contractor are subject to the provisions of Chapter 119, Florida Statutes, and may not be destroyed without the specific written approval of the City's designated custodian of public records.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CITY'S CUSTODIAN OF PUBLIC RECORDS/CITY CLERK AT (321) 433-8484, 65 STONE STREET, COCOA, FLORIDA 32922.

Utility Contractor is required to and agrees to comply with public records laws. Utility Contractor shall keep and maintain all public records required by City to perform the services as agreed to herein. Utility Contractor shall provide the City, upon request from the CITY CLERK, copies of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law. Utility Contractor shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term. Upon completion of the Agreement, Utility Contractor shall transfer to City, at no cost, all public records in possession of the Utility Contractor, provided the transfer is requested in writing by the City Clerk. Upon such transfer, Utility Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. However, if the City Clerk does not request that the public records be transferred, the Utility Contractor shall continue to keep and maintain the public records upon completion of the Agreement and shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to City, upon request from the City Clerk, in a format that is compatible with the information technology systems of City. Should the City not possess public records relating to this Agreement which are requested to be inspected or copied

by the City or any other person, the City shall immediately notify Utility Contractor of the request and the Utility Contractor shall then provide such records to the City or allow the records to be inspected or copied within a reasonable time. If the Utility Contractor does not comply with a public records request, the City may enforce this Section to the extent permitted by law. Utility Contractor acknowledges that if the Utility Contractor does not provide the public records to the City within a reasonable time, the Utility Contractor may be subject to penalties under Section 119.10, Florida Statutes. The Utility Contractor acknowledges that if a civil action is filed against the Utility Contractor to compel production of public records relating to this Agreement, the court may assess and award against Utility Contractor the reasonable costs of enforcement, including reasonable attorney fees. All public records in connection with this Agreement shall, at any and all reasonable times during the normal business hours of the Utility Contractor, be open and freely exhibited to the City for the purpose of examination, audit or otherwise. Failure by Utility Contractor to grant such public access and comply with public records laws and/or requests shall be grounds for immediate unilateral cancellation of this Agreement by the City upon delivery of a written notice of cancellation. If the Utility Contractor fails to comply with this Section, and the City must enforce this Section, or the City suffers a third party award of attorney's fees and/or damages for violating Chapter 119, Florida Statutes, due to Utility Contractor failure to comply with this Section, the City shall collect from Utility Contractor prevailing party attorney's fees and costs, and any damages incurred by the City, for enforcing this Section against Utility Contractor. And, if applicable, the City shall also be entitled to reimbursement of all attorneys' fees and damages which the City had to pay a third party because of the Utility Contractor failure to comply with this Section. The terms and conditions set forth in this Section shall survive the termination of this Agreement.

14.2 Reuse of Documents. All documents, including but not limited to, drawings, specifications, and data, or programs stored electronically or otherwise, prepared by the Utility Contractor and its independent contractors and associates pursuant to this Agreement or related exclusively to the Services described herein may be reused by the City for any reason or purpose at anytime. However, the City agrees that the aforesaid documents are not intended or represented to be suitable for reuse by the City or others on any undertaking other than the Work outlined in this Agreement. Any reuse for an undertaking other than for the Work without verification or adoption by the Utility Contractor, or its independent contractors and associates if necessary, to specific purposes intended will be at the City's sole risk and without liability or legal exposure to the Utility Contractor.

14.3 The Utility Contractor acknowledges that the City is a Florida Municipal Corporation and subject to the Florida Public Records Law. Utility Contractor agrees that to the extent any document produced by Utility Contractor under this Agreement constitutes a Public Record, Utility Contractor shall comply with the Florida Public Records Law.

15.0 ASSIGNMENT

15.1 Utility Contractor shall not assign or subcontract this Agreement, any Task Authorization hereunder, or any rights or any monies due or to become due hereunder without the prior, written consent of City.

15.2 If upon receiving written approval from City, any part of this Agreement is subcontracted by Utility Contractor, Utility Contractor shall be fully responsible to City for all acts and/or omissions performed by the subcontractor as if no subcontract had been made.

15.3 If City determines that any subcontractor is not performing in accordance with this Agreement, City shall so notify Utility Contractor who shall take immediate steps to remedy the situation.

15.4 If any part of this Agreement is subcontracted by Utility Contractor, prior to the commencement of any Work by the subcontractor, Utility Contractor shall require the subcontractor to provide City and its affiliates with insurance coverage as set forth by the City.

16.0 INDEPENDENT CONTRACTOR

16.1 At all times during the term of this Agreement, Utility Contractor shall be considered an independent contractor and not an employee of the City.

17.0 TERMINATION; DEFAULT BY UTILITY CONTRACTOR AND CITY'S REMEDIES

17.1 The City reserves the right to revoke and terminate this Agreement and rescind all rights and privileges associated with this Agreement, without penalty, at any time with or without cause. Without limitation, the following shall be considered cause for terminating this Agreement and shall constitute a default hereunder:

17.2 Utility Contractor defaults in the performance of any material covenant or condition of this Agreement and does not cure such other default within thirty (30) calendar days after written notice from the City specifying the default complained of, unless, however, the nature of the default is such that it cannot, in the exercise of reasonable diligence, be remedied within thirty (30) calendar days, in which case the Utility Contractor shall have such time as is reasonably necessary to remedy the default, provided the Utility Contractor promptly takes and diligently pursues such actions as are necessary.

17.3 Utility Contractor is adjudicated bankrupt or makes any assignment for the benefit of creditors or Utility Contractor becomes insolvent, or is unable or unwilling to pay its debts; or

17.4 Utility Contractor has acted negligently, as defined by general and applicable law, in performing the Work hereunder; or

17.5 Utility Contractor has committed any act of fraud upon the City; or

17.6 Utility Contractor has made a material misrepresentation of fact to the City while performing its obligations under this Agreement.

17.7 Utility Contractor is experiencing a labor dispute which threatens to have a substantial, adverse impact upon performance of this Agreement without prejudice to any other right or remedy City may have under this Agreement.

17.8 Utility Contractor fails to comply with any condition or provision of this Agreement including any Task Authorization.

17.9 Notwithstanding the aforementioned, in the event of a default by Utility Contractor, the City shall have the right to exercise any other remedy the City may have by operation of law, without limitation, and without any further demand or notice. In the event of such termination, City shall be liable only for the payment of all unpaid charges, determined in accordance with the provisions of this Agreement, for Work properly performed prior to the effective date of termination. Additionally, in the event of such termination upon default and breach of this Agreement, the City may take possession of the Project Site and of all materials, tools, and appliances thereon and finish the work by whatever method the City may deem expedient. Any completed services performed by Utility Contractor under this Agreement shall, at the option of the City, become the City's property and Utility Contractor shall be entitled to receive equitable compensation for any Work completed to the satisfaction of the City. The Utility Contractor, however, shall not be relieved of liability to the City for damages sustained by the City by reason of any breach of the Agreement, and the City may withhold any payments to Utility Contractor for the purpose of setoff until such time as the amount of damages due to the City from Utility Contractor can be determined.

18.0 FORCE MAJEURE

18.1 Any delay or failure of either party in the performance of its required obligations hereunder shall be excused if and to the extent caused by acts of God; fire; plague; pandemic; flood; windstorm; explosion; riot; ware; sabotage; strikes; extraordinary breakdown of or damage to City's affiliates' generating plants, their equipment, or facilities; court injunction or order; federal and/or state law or regulation; order by any regulatory agency; or cause or causes beyond the reasonable control of the party affected; provided that prompt notice of such delay is given by such party to the other and each of the parties hereunto shall be diligent in attempting to remove such cause or causes. If any circumstance of Force Majeure remains in effect for sixty (60) days, either party may terminate this Agreement.

19.0 GOVERNING LAW & VENUE

19.1 This Agreement is made and shall be interpreted, construed, governed, and enforced in accordance with the laws of the State of Florida. Venue for any state action or litigation shall be Brevard County, Florida. Venue for any federal action or litigation shall be Orlando, Florida.

19.2 The parties agree that should any dispute arise between them regarding the terms or performance of this Agreement, both parties will participate in mediation. The parties agree to equally share the cost of the mediator. Should the parties fail to resolve their differences through mediation, then any cause of action filed hereunder shall be filed in the Circuit or County Court for Brevard County, Florida.

20.0 HEADINGS

20.1 Paragraph headings are for the convenience of the parties only and are not to be construed as part of this Agreement.

21.0 SEVERABILITY

21.1 In the event any portion or part of thereof this Agreement is deemed invalid, against public policy, void, or otherwise unenforceable by a court of law, the parties shall negotiate an equitable adjustment in the affected provision of this Agreement. The validity and enforceability of the remaining parts of this Agreement shall otherwise by fully enforceable.

22.0 WAIVER AND ELECTION OF REMEDIES

22.1 Waiver by either party of any term, condition or provision of this Agreement shall not be considered a waiver of that term, condition, or provision in the future.

22.2 No waiver, consent, or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of each party hereto.

23.0 THIRD PARTY RIGHTS

23.1 Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Utility Contractor.

24.0 PROHIBITION AGAINST CONTINGENT FEES

24.1 Utility Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Utility Contractor, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Utility Contractor, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement.

25.0 ENTIRE AGREEMENT

25.1 This Agreement, including any Task Authorizations and Schedules, Attachments, Appendix's and Exhibits attached hereto, constitute the entire agreement between City and Utility Contractor with respect to the Services specified and all previous representations relative thereto, either written or oral, are hereby annulled and superseded. The terms and conditions of this Agreement shall be deemed automatically incorporated into any Task Authorization approved and executed hereunder regardless if the Task Authorization references this Agreement.

26.0 NO JOINT VENTURE

26.1 Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties; and neither party is authorized to, nor shall either party act toward third persons or the public in any manner which would indicate any such relationship with the other.

27.0 ATTORNEY'S FEES

27.1 Should either party bring an action to enforce any of the terms of this Agreement, each party shall bear its own costs and expenses of such action including, but not limited to, reasonable attorney's fees, whether at settlement, trial or on appeal.

28.0 COUNTERPARTS

28.1 This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be considered an original agreement; but such counterparts shall together constitute but one and the same instrument.

29.0 AGREEMENT INTERPRETATION; DRAFTING

29.1 At its discretion, during the course of the work, should any errors, ambiguities or discrepancies be found in the Agreement or specifications, the City at its sole discretion will interpret the intent of the Agreement and work descriptions and the Utility Contractor hereby agrees to abide by the City's interpretation and agrees to carry out the work in accordance with the decision of the City. When the material, article or equipment is designated by a brand name and more than one brand name is listed, it will be understood that the work is based on one brand name only. The Utility Contractor will be responsible for all coordination necessary to accommodate the material, article or equipment being provided without additional cost to the City. A substitute material, article or equipment is allowed if it is reasonably equivalent to the brand name specified. The City has full discretion to decide whether a substitute is reasonably equivalent. Utility Contractor must notify the City prior to use of the substitute for a specified brand name and allow the City to make a determination before Utility Contractor uses the substitute.

29.2 City and Utility Contractor each represent that they have both shared equally in drafting this Agreement and no party shall be favored or disfavored regarding the interpretation of this Agreement in the event of a dispute between the parties in a court of competent jurisdiction, except as provided in Section 29.1.

30.0 NON-DISCRIMINATION

30.1 Utility Contractor warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, or sexual orientation.

31.0 PUBLIC ENTITY CRIMES

31.1 As provided in §287.132 and §287.133, *Florida Statutes*, by entering into this Contract or performing any work in furtherance hereof, the Utility Contractor certifies that it, its affiliates, suppliers, subcontractors and Contractors who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by §287.133(3)(1), *Florida Statutes*.

32.0 CODE REQUIREMENTS

32.1 The Utility Contractor and its subcontractors on any project must be familiar with all applicable Federal, State, County, City and Local Laws, Regulations or Codes and be governed accordingly as they will apply to the project and the actions or operations of those engaged in the work or concerning materials used. Utility Contractor shall ask for and receive any required inspections.

33.0 TESTING

33.1 The Utility Contractor shall be responsible for all tests and testing required by this Contract, unless otherwise specified. All testing shall be done in the presence of a representative of the City. The City reserves the right to test all materials, products, installations and equipment.

33.2 All pipelines will be placed in satisfactory operating condition by the Utility Contractor prior to final payment, and the Utility Contractor shall furnish a letter addressed to the City advising that the completed Work has been installed in accordance with the plans and specifications of this Contract and that all items are in proper operating condition.

34.0 CITY'S RIGHT TO STOP WORK

34.1 If the Utility Contractor persistently fails or refuses to perform the Work in accordance with the contract documents, the City shall have the right, but not an obligation, to order the Utility Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected, no longer exists, or the City orders that the Work be resumed. In such event, the Utility Contractor shall immediately obey such order. A stop work directive provided under this paragraph shall not entitle the Utility Contractor to an extension of the completion date.

35.0 CITY'S RIGHT TO PERFORM WORK

35.1 If the Utility Contractor's Work is stopped by City, or if the Utility Contractor persistently fails or refuses to perform the Work in accordance with the contract documents, and the Utility Contractor fails within three (3) working days of such stoppage, failure, or refusal, to provide adequate assurance to the City that the cause of such stoppage, failure, or refusal will be

eliminated or corrected, then the City may, without prejudice to any other rights or remedies the City may have against Utility Contractor, proceed to carry out the subject Work. In such a situation, an appropriate change order shall be issued deducting from the contract price the cost of correcting the subject deficiencies, plus compensation for the City's Consultant's additional services and expenses necessitated thereby, if any. If the unpaid portion of the contract price is insufficient to cover the amount due the City, the Utility Contractor shall pay the difference to the City.

36.0 EMERGENCIES

36.1 All emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Utility Contractor, without special instruction or authorization from the City or the City's authorized representative, is obligated to immediately act to prevent threatened damage, injury, or loss. The Utility Contractor shall give the City's authorized representative(s) written documentation within three (3) days from the inception of said emergency if the Utility Contractor believes that any significant changes in the Work or variations from the contract documents have been caused thereby. If the City's authorized representative determines that a change in the contract documents is required because of action taken by the Utility Contractor in response to such an emergency, a change order will be issued to document the consequences of such action.

37.0 WARRANTY / GUARANTEE

Unless otherwise required by the specifications, the Utility Contractor shall furnish a one (1) year warranty on all equipment, furnishings, and installation provided hereunder against defect in material and/or workmanship. The warranty shall become effective on the Date of Substantial Completion and acceptance by the City or as otherwise required by law. Should any defect in materials or workmanship, excepting ordinary wear and tear, be discovered during the above-stated warranty period, the Utility Contractor, upon written notice from the City, shall immediately repair or replace same at no cost to the City. The Utility Contractor will not be liable under the above warranty for any defects or damages resulting from unforeseeable causes beyond the control, and without fault or negligence, of the Utility Contractor, such as misuse or neglect by the City, acts of God, fires, floods and hurricanes.

38.0 WAIVER OF JURY TRIAL

38.1 The City and Utility Contractor hereby knowingly, irrevocably, voluntarily and intentionally waive any right either may have to a trial by jury in respect to any action, proceeding, lawsuit or counterclaim based upon the contract, arising out of, under, or in connection with the construction of the work, or any course of conduct, course of dealing, statements (whether verbal or written) or the actions or inactions of any party.

39.0 BARRICADES

39.1 The Utility Contractor shall provide all barricades and/or protective safety devices and shall take all necessary precautions to protect all personnel and property. The

Utility Contractor shall remove said barricades and/or safety devices from City property at the completion of the project.

40.0 COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT

40.1 By the submission of its Bid, Bidder certifies that all material, equipment, etc. contained in its bid meets all Occupational Safety and Health Act (OSHA) requirements. Bidder further certifies that if it is the successful Bidder, and any of the material, equipment, etc. delivered is subsequently found to be deficient of any OSHA requirement in effect on date of delivery, all costs necessary to bring the material, equipment, etc. into compliance with the aforementioned requirements shall be borne by the Bidder. Furthermore, in compliance with Florida law, any item delivered from a Task assigned under this Agreement must be accompanied by a Material Safety Data Sheet (MSDS). The MSDS must include the following information:

A. The chemical name and common name of the toxic substance

B. The hazards or other risks in the use of the toxic substances including:

1. The potential for fire, explosion, corrosion and reactivity
2. The known acute and chronic health effects of risks from exposure, including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance
3. The primary routes of entry and symptoms of over-exposure

C. The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of over-exposure

D. The emergency procedure for spills, fire, disposal and first aid

E. A description in lay terms of the known specific potential health risks posed by the toxic substance intended to alert any person reading this information

F. The year and month, if available, that the information was compiled and the name, address and emergency telephone number of the manufacturer responsible for preparing the information

41.0 STORAGE, REMOVAL AND DISPOSAL OF SOLID WASTE/CONSTRUCTION DEBRIS

41.1 The Utility Contractor must comply with all applicable City Codes and solid waste franchise agreements regarding the storage, removal, and disposal of solid waste and construction debris. Prior to performing any Services required hereunder, the Utility Contractor shall contact the City's Utilities Department for information relative to complying with this section.

42.0 MATERIALS, INSTALLATION AND PERFORMANCE

42.1 The Utility Contractor shall be responsible for the provision, installation and performance of all equipment, materials, services, etc. offered in their Bid. The Utility Contractor is in no way relieved of the responsibility for the performance of all equipment furnished or of assuring the timely delivery of materials, equipment, etc. even though it is not of their own manufacture. Unless otherwise specified, material storage shall be on site and within the defined area of the Work and within the Utility Contractor's area of responsibility.

43.0 SET UP AND CONNECTIONS

43.1 All equipment is to be set up, connected to utilities, checked and demonstrated at no charge to the City. The Utility Contractor shall be responsible for all transportation, off-loading, handling, storage and installation of any City-furnished Utility Contractor-installed material and equipment.

44.0 SAFETY AND PROTECTION OF PROPERTY

44.1 The Utility Contractor shall take all reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to, its employees on the Work and all other persons who may be affected thereby; the Work and materials and equipment to be incorporated therein; and all other property at the site or adjacent thereto including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The Utility Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss, and shall give all notices required by same. This requirement includes, but is not limited to, the United Sates Occupational Safety and Health Act and the Florida Trench Safety Act, *Florida Statute* §553.60.

45.0 TAXES

45.1 The Utility Contractor shall pay all applicable sales, consumer-use, and other similar taxes required by law. The Utility Contractor is responsible for reviewing the pertinent State Statutes involving the sales tax and complying with all requirements.

46.1 ENTIRETY OF CONTRACT

46.1 The City and the Utility Contractor agree that this Contract sets forth the entire Contract between the parties and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto in accordance with Article 3.0 – Changes in the Scope of Work.

47.0 NOTICE

For Utility Contractor
Atlantic Development of Cocoa, Inc.

2185 West King Street
Cocoa, Florida 32926
Attention: _____
Phone: 321-639-8788

For City:

City of Cocoa/ Utilities Department
Attention: Utilities Director
351 Shearer Blvd.
Cocoa, Florida 32922
(321) 433-8710

47.1 Either party may change the notice address by providing the other party written notice of the change.

48.0 SOVEREIGN IMMUNITY

48.1 Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00). This paragraph shall survive termination of this Agreement.

49.0 CORPORATE REPRESENTATIONS BY UTILITY CONTRACTOR

49.1 Utility Contractor hereby represents and warrants to the City the following:

A. Utility Contractor is duly registered and licensed to do business in the State of Florida and is in good standing under the laws of Florida, and is duly qualified and authorized to carry on the functions and operations set forth in this Agreement.

B. The undersigned representative of Utility Contractor has the power, authority, and legal right to execute and deliver this Agreement on behalf of Utility Contractor.

50.0 INDEMNIFICATION.

50.1 For other and additional good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Utility Contractor shall indemnify, hold harmless and defend the City, its officers, agents, officials, representatives, employees, and/or

attorneys against any and all liability, loss, cost, damages, expenses, claim or actions, of whatever type, including but not limited to attorney's fees and suit costs, for trial and appeal, which the City may hereafter sustain, incur or be required to pay, arising out of, wholly or in part, or due to any act or omission of Utility Contractor, its agent(s), vendors, contractors, subcontractor(s), representatives, servants or employees in the execution, performance or non-performance or failure to adequately perform Utility Contractor's obligations pursuant to this Agreement and any and all Task Authorizations hereunder.

50.2 The indemnification provided above shall obligate the indemnifying party to defend at its own expense or to provide for such defense, at the sole option of the City, as the case may be, of any and all claims of liability and all suits and actions of every name and description that may be brought against the City, its officers, agents, officials, representatives, employees, and/or attorneys which may result from the services under this Agreement whether the services be performed by the indemnifying party or anyone directly or indirectly employed or hired by them. In all events the City shall be permitted to choose legal counsel of its sole choice, the fees for which shall be subject to and included with this indemnification provided herein, as long as said fees are reasonable. This paragraph shall survive termination of this Agreement.

The Utility Contractor specifically assumes potential liability for actions brought by Utility Contractor's own employees against the City and, solely for the purpose of this indemnification and defense, Utility Contractor specifically waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. This waiver has been specifically and mutually negotiated by the parties.

PURSUANT TO SECTION 558.0035, FLORIDA STATUTES, AN INDIVIDUAL EMPLOYEE OR AGENT OF THE CONTRACTOR MAY NOT BE HELD INDIVIDUALLY LIABLE FOR ECONOMIC DAMAGES RESULTING FROM NEGLIGENCE UNDER THIS AGREEMENT IF THE CONDITIONS OF SECTION 558.0035 ARE SATISFIED.

IN WITNESS WHEREOF, the parties hereto caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

CITY:

CITY OF COCOA, FLORIDA:

By: _____
Stockton Whitten, City Manager

ATTEST:

Carie Shealy, City Clerk

SEAL
FLORIDA

UTILITY CONTRACTOR:

Atlantic Development of Cocoa, Inc.:

By: _____
Print Name/Title: GLENN S. GRIGNON
VICE PRESIDENT

EXHIBIT "A"

SCOPE OF SERVICES
UTILITY GENERAL CONSTRUCTION CONTRACTOR
AGREEMENT

The Scope of Services to be provided by the Utility Contractor shall include all phases of underground utility services. The Utility Contractor has already been pre-qualified by City to perform the following:

- Install new water, sewer, and/or reclaim pressure pipe, gravity main, manholes, valves, fire hydrants, service lines, air release valves, and other associated infrastructure and appurtenances.
- Repair and/or replace water, sewer, and/or reclaim pressure pipe, gravity main, manholes, valves, fire hydrants, service lines, air release valves, and other associated infrastructure and appurtenances.
- Repair and/or replace or installation of new piping and associated appurtenances located at the water and wastewater plants and the wellfield
- Perform line stops / install insert valves on various size pipe to include large diameter transmission mains
- The projects will consist of various size pipe consisting of various materials: i.e.: metal, plastic, Asbestos Cement Pipe, and reinforced concrete.
- All work on the City of Cocoa Utility system shall meet the requirements of the City of Cocoa Utilities Technical Provisions and Standard Details
- The Contractor shall include a Critical Path Method Schedule for each project. The requirements will be detailed in the specifications for each project.
- Work shall include any associated restoration, maintenance of traffic, erosion control, clearing and grubbing, or other similar ancillary work to complete the project
- Restoration of FDOT, Brevard County, City of Cocoa, or other local jurisdiction roads (to included driveways, curbing, and sidewalk), storm water systems, and/or other utilities affected by the utility work. The restoration shall be per the governing authority's specifications and requirements
- Contractor shall meet all safety requirements as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work.

Quotes will first be obtained from Utility Contractor prior to commencement of any planned project. The City shall retain the right to refuse any quote for just cause.

For each project Utility Contractor will supply the following:

A. Labor, equipment and material (unless material is supplied by City by mutual agreement)

B. Traffic control: On-site personnel must be certified in FDOT Maintenance of Traffic Level III Work Zone Training.

C. Supervision: On-site personnel in charge must be OSHA Certified Competent Person

D. De-watering

E. As-built drawings: When project is completed

EXHIBIT "B"

FORM

PUBLIC CONSTRUCTION BOND

In compliance with Section 255.05, Florida Statutes

BOND NO.:	
Contractor Name:	
Contractor Address:	
Contractor Phone No.:	
Surety Company:	
Surety Agent:	
Owner Name:	City of Cocoa
Owner Address:	65 Stone Street
	Cocoa, Florida 32922
Owner Phone No.	(321) 433-8710
Owner Fax No.	
Owner Email:	
Contract Date:	
Contract Amount:	$
Bond Amount:	$
Contract No. (if applicable):	
Description of Work:	
Project Address:	
Legal Description:	

Bid Number:	

BY THIS BOND, We,_____., a _____as Principal, and _____ a _____ Corporation as Surety, are hereby bound to the **CITY OF COCOA**, a Florida municipal corporation , herein called Owner, in the sum of **$**_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

a. Performs the _____Agreement dated _____, 20____, ("Agreement") between Principal and Owner for construction of the _____as specified in the Agreement, the Agreement being made a part of this bond by reference, at the times and in the manner prescribed in this Agreement; and

b. Promptly makes payments to all claimants, as defined in section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the Agreement; and

c. Pays Owner all losses, damages, including delay damages, expenses, and costs that Owner sustains because of a default by Principal under the Agreement; and

d. Performs the guarantee of all work and materials furnished under the Agreement for the time specified in the Agreement and by law including all warranties and guarantees specified in the Agreement, then this bond is to be void; otherwise it remains in full force and effect.

e. In any action against this performance bond, the Owner is entitled to attorney's fees under sections 627.428 and 627.756, Florida Statutes, and Danis Industries Corp. v. Ground Improvement Techniques, 645 So.2d 420 (Fla. 1994) and McCarthy Bros. Co. v. Tilbury Construction, Inc., 849 So.2d 7 (Fla. 1st DCA 2003), including appellate attorney's fees.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

IN WITNESS WHEREOF, the said Principal and Surety have assigned and sealed this instrument this _____ day of _____ 2020.

CONTRACTOR AS PRINCIPAL

_____., a _____:

_____

(Corporate Seal)

Signature_____

Title_____

SURETY

Company:

_____

(Corporate Seal)

Signature_____

Title_____

Approved as to Form:

_____

Cocoa City Attorney

Finance Department
Purchasing Division
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8844 I Email: dkozlak@cocoafl.gov

CITY OF COCOA
AMENDMENT TO AGREEMENT FOR UTILITIES
GENERAL CONSTRUCTION CONTRACTOR SERVICES
1st AMENDMENT
ATLANTIC DEVELOPMENT OF COCOA, INC.
RFP NO. 20-18-COC

This 1ST Amendment to the "AGREEMENT FOR UTILITIES GENERAL CONSTRUCTION CONTRACTOR SERVICES" is made between the City of Cocoa and Atlantic Development of Cocoa, Inc. located at 2185 West King Street, Cocoa, Florida 32926.

The agreement entered into on November 9, 2020, is hereby amended to renew for the first renewal option available for one (1) two-year renewal, commencing on November 9, 2023, and terminating on November 8, 2025.

All other terms, conditions, provisions, and scope of services remain unchanged. By signing below, each party indicates its approval of this Amendment for Contract.

ATLANTIC DEVELOPMENT OF COCOA, INC.

By: Glenn S. Grignon
(Name) Printed

Vice President
(Title)

Signature 05/05/2023 Date

CITY OF COCOA

By: Stockton Whitten
(Name) Printed

City Manager
(Title)

Signature 06/06/2023 Date

ATTESTED BY:

City Clerk
Signature/Title

CC: Carie Shealy, City Clerk
John A. Walsh, P.E. Utilities Director
Diane Kozlak, Senior Buyer & Contract Agent

CORPORATE SEAL FLORIDA

January 2024

CITY OF COCOA
BREVARD COUNTY, FLORIDA

QUOTE DOCUMENTS AND SPECIFICATIONS

FOR

UTILITY CONSTRUCTION
FRIDAY ROAD UTILITIES IMPROVEMENTS

Division 0 Requirements Prepared By:
The City of Cocoa Utilities Dept.
351 Shearer Blvd.
Cocoa, FL 32922
(321) 433-8701

Technical Specifications and Construction Drawings Prepared By:
DRMP, Inc.
100 Parnell Street
Merritt Island, FL 32953
(321) 453-0010

JUAN JOSE GONZALEZ
LICENSE
No. 84538
12-21-2023
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Juan Gonzalez, P.E. #84538
DRMP COA #2648

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SPECIFICATION INDEX

UTILITY CONSTRUCTION
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

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INVITATION TO QUOTE

Quotes will be received via email at kennis@cocoafl.gov or in person at the office of the Engineering Division of the City of Cocoa, located at 351 Shearer Blvd., Cocoa, Florida, 32922, by **3:00 p.m., February 7, 2024**

Friday Road Utilities Improvements

The work to be quoted consists of furnishing all labor, materials, equipment, tools, transportation, services, and incidentals; and performing all work specified in the quote documents, for extension of approximately 3,270 LF (linear feet) of water main, 1755 LF of sewer main, and 1740 LF of reclaimed water main along Friday Road, crossing SR 528 & Brightline Railway and ending at the north for future connections, all in Cocoa, Florida. All jack and bore pipe ends are to be temporarily capped. The project consists of three (3) distinct utility mains, all located in public rights-of-way or easements obtained by the City of Cocoa. All work performed shall be in accordance with the specifications and contract documents pertaining thereto.

Only Contractors PRE-QUALIFIED by the City of Cocoa Utilities Department will be permitted to quote this project. The successful low quoter will be determined based on the quotes indicated in Section 00300 (as further described in the Technical Specifications), and subject to meeting all Qualifications required in the Contract Documents

A non-mandatory pre-quote conference and site visit will be held at **11:00 a.m., January 17, 2024** at the City of Cocoa Utilities Building, located at 351 Shearer Boulevard, Cocoa, Florida 32922.

Questions are to be sent to kennis@cocoafl.gov and are due by **3:00 p.m. on January 26, 2024**.

The City reserves the right to reject any or all quotes, with or without a cause; to waive technical errors and informalities; and to accept the quote, which in its judgment, best serves the City.

The Contractor receiving the Contract award will be required to supply a materials, performance, and payment bond(s) per the terms and conditions of RFQ 20-18-COC Agreement for Utilities General Construction Contractor.

The Contract Documents consist of the following documents, which in the event of conflicting information, shall be given precedence in the following order:

- Quote Documents to include the Specifications and Bid Plans for the Friday Road Utilities Improvements;
- Executed Task Authorization;
- RFQ 20-18-COC and RFQ 20-18-COC Agreement for Utilities General Construction Contractor;
- City of Cocoa Utilities Technical Provisions and Standard Details Manual, Latest Revision, accessible on the City of Cocoa's website.

The usage of the terms bid, quote, and proposal, and any variations thereof, may be used interchangeably with each other and are meant to convey the same meaning within the Contract Documents.

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SECTION 00300
QUOTE FORM
Friday Road Utilities Improvements
City of Cocoa

Proposal of _____
(Name)

_____
(Address)

to furnish all materials, service, equipment, and labor required, for Friday Road Utilities Improvements as specified in Contract Documents.

The undersigned has carefully examined the Contract Documents and is familiar with the nature and extent of the work, materials, and labor required. The undersigned agrees to do all of the work called for by said specifications, in the manner prescribed therein, in accordance with the Contract Documents, for the prices stated in the spaces herein provided.

NOTE THE CONTRACT WILL BE AWARDED BASED ON THE TOTAL QUOTE.

TOTAL QUOTE	$

_____ Dollars
(Total Written in words)

FAILURE TO COMPLETE THE ABOVE WILL RESULT IN THE QUOTE BEING DECLARED NON-RESPONSIVE.

The undersigned also agrees as follows:

1) The undersigned agrees that the quote shall remain firm for a period not to exceed ninety (90) calendar days from the due date of the quote. The undersigned also agrees to commence the work with an adequate force and equipment within thirty (30) calendar days after the issue date of Notice to Proceed or Original Purchase Order. The work shall be substantially completed within two hundred and seventy (270) calendar days from the date of Notice to Proceed or Purchase Order. The work shall be finally completed, ready for Final Payment within thirty (30) calendar days after the actual date of Substantial Completion. The Contractor agrees to reimburse the City of Cocoa, Florida, liquidated damages per the terms and conditions of RFQ 20-18-COC, Agreement for Utilities General Construction Contractor.

2) The Contractor shall procure and shall maintain the insurance requirement during the life of this Contract.

_____
(Company or Corporation Name)

_____
(Street or P.O. Box)

_____
(City, State and Zip Code)

_____
(Area Code and Phone Number)

_____
(Area Code and Fax Number)

_____
(Email Address)

By:_____
(Name Printed and Title)

_____
(Signature)

City of Cocoa - Friday Road Utilities Improvements Quote Schedule

Quoter will complete the Work in accordance with the Contract Documents for the following prices:

Item #	Item	Qty	Un	Unit $	Extended $
Miscellaneous					
101-1	Mobilization	1	LS		
101-2	Pre & post construction video	1	LS		
101-3	Record drawings	1	LS		
102-1	Maintenance of traffic	1	LS		
104-30	Erosion control	1	LS		
110-1-1	Clearing and grubbing	1	LS		
121-70	Flowable Fill	16	CY		
327-70-6	Mill ex. asphalt, 1.5" avg. depth	320	SY		
334-1-13	Superpave asph. traf C, SP-12.5	30	TN		
570-1-3	Sod, Bahia	2,825	SY		
570-1-4	Sod, St. Augustine (contingency)	100	SY		
706-1-3	Raised pvmt. marker, type B	12	EA		
711-11-221	Thermo., std, yellow, solid, 6"	230	LF		
Potable Water					
1050-31-212	12" PVC water main	1,670	LF		
1050-51-208	8" DIP	20	LF		
1050-51-212	12" DIP	60	LF		
1050-41-212	Jack & bore 12" steel pipe	435	LF		
1050-41-214	Direct bore 14" HDPE	1,105	LF		
1055-1	Water pipe fittings	3.08	TN		
1080-11-303	6"×6" Wet tap	1	EA		
1080-11-304	6" Gate valve	5	EA		
1080-11-402	8" Gate valve	1	EA		
1080-11-403	12"×10" Wet tap	1	EA		
1080-11-404	8" Gate valve in manhole	2	EA		
1080-11-405	12" Gate valve	8	EA		
1080-25-104	2" Blow-off valve	1	EA		
1644-116-08	Fire hydrant	5	EA		
Force Main					
2050-31-208	8" PVC force main	430	LF		
2050-51-208	8" DIP	60	LF		
2050-41-208	Jack & bore 8" steel pipe	435	LF		
2050-41-210	Direct bore 10" HDPE	830	LF		
2055-1	Force main fittings	0.80	TN		
2080-11-304	8" Gate valve	4	EA		
2080-26-106	Air/vac assembly	3	EA		
Reclaimed Water Main					
3050-31-212	12" PVC reclaimed water main	415	LF		
3050-51-212	12" DIP	60	LF		
3050-41-212	Jack & bore 12" steel pipe	435	LF		
3050-41-214	Direct bore 14" HDPE	830	LF		
3055-1	Reclaimed water main fittings	1.81	TN		
3080-11-304	12" Gate valve	5	EA		
3080-11-404	12" Gate valve in manhole	2	EA		
				Grand Total Bid	

Quoter acknowledges that the estimated quantities indicated in the Quote Schedule are not guaranteed, and are solely for the purpose of comparison of quotes, and final payment for all unit price quote items will be based on actual quantities, determined as provided in the Contract Documents.

Submitted by:_____

Contractor:_____

Address:_____

Telephone:_____

State of Florida Certified General Contractor or Underground Contractor (Required Information)

Licensee:_____ License No.:_____

SECTION 00330
LISTING OF SUBCONTRACTORS

The Contractor proposes that the following subcontractors are qualified to performed the referenced work and have successfully done so on recent projects similar in nature and size. Upon approval of subcontractors listed the successful quoter shall not substitute subcontractors without approval from the Engineer and Owner.

DESCRIPTION OF WORK	COMPANY NAME ADDRESS & PHONE NUMBER	REFERENCES
	Name:	1.
	Address:	2.
	City:	
	State: zip:	
	Phone:	3.
	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.
	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.
	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.
	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.

SECTION 00675

SECTION lK - FLORIDA TRENCH SAFETY ACT CERTIFICATION AND DISCHARGE STATEMENT MANDATORY

Contractor acknowledges that included in the various items of the proposal and in the Total Quote Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The contractor further identifies the costs to be summarized below.

	ITEM	TRENCH SAFEY MEASURE (DESCRIPTION)	UNIT OF MEASURE	UNIT	UNIT COST	EXTEDED COST
A						
B						
C						
D						

These units, costs, and the unit prices inferred shall be disclosed solely for the purpose of compliance with the procedural requirements of the Florida Trench Safety Act.

This amount disclosed as the cost of compliance with the applicable trench safety requirement does not constitute the extent of the Contractor's obligation to comply with said standards. Contractor shall expend additional sums, at no additional cost to the OWNER (except as may otherwise be provided), which are necessary to so comply.

Acceptance of the Quote to which this certification and disclosure applies in no way represents that the OWNER or its representatives have evaluated and thereby determined that the above costs are adequate to comply with the applicable trench safety requirements nor does it in any way relieve the Contractor, of its sole responsibility to comply with the applicable trench safety requirements.

_____
Name of Firm

_____
Authorized Signature

Date: _____

This document shall be submitted with the Quote packet. Failure to complete the above may result in the Quote being declared non-responsive.

Attachment A
Contractor E-Verify Affidavit

SECTION 00700
GENERAL CONDITIONS

PLEASE REFER TO THE RFQ 20-18-COC CONTRACT DOCUMENTS FOR UTILITIES GENERAL CONSTRUCTION CONTRACTOR FOR THE GENERAL CONDITIONS

END OF SECTION

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DIVISION 1- GENERAL REQUIREMENTS

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APPENDIX

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERAL PERMITS

FLORIDA DEPARTMENT OF TRANSPORTATION UTILITY PERMIT

BREVARD COUNTY RIGHT-OF-WAY PERMIT

DIVISION 1- GENERAL REQUIREMENTS

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SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 LOCATION

A. The Work described by these specifications is located along Friday Road in Cocoa, Florida. Within this specification the utility construction shall be referred to as the Project or Work, the City of Cocoa shall be referred to as the Owner or City.

1.02 DESCRIPTION

A. The Work to be done consists of furnishing all labor, equipment, materials and services required for new construction of extensions of the City of Cocoa potable water main, force main, and reclaimed water main as indicated on the construction plans, including all appurtenances and miscellaneous items as required.

B. Contractor's Duties:

1. Cooperate with the Owner or Owner's Representatives.

2. Except as specifically noted, provide and pay for:

   a. Labor, materials, testing services, and equipment.
   b. Tools, construction equipment, and machinery.
   c. Water and utilities required for construction.
   d. Other facilities and services necessary for the proper execution and completion of the Work.
   e. Layout and field engineering for completion of the proposed Work including survey of easements as necessary.

3. Secure and pay for, as necessary for the proper execution and completion of the Work, and as applicable at time of receipt of quotes:

   a. Permits.
   b. Government fees.
   c. Licenses.

4. Give required notices.

5. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities that bear on performance of Work.

6. Promptly submit written notice to Owner of observed variance of Contract Documents from legal requirements.

7. Enforce strict discipline and good order among employees. Do not employ on Work persons not skilled in their assigned task.

8. The Contractor will furnish personnel and equipment that will be efficient, appropriate, and large enough to secure a satisfactory quality of Work and a rate of progress that will ensure the completion of the Work within the time stipulated in the Proposal. If, at any time, such personnel appear to the Owner to be inefficient, inappropriate or insufficient for securing the quality of Work aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor will conform to such order. Failure of the Owner to give such order will in no way relieve the Contractor of his obligations to secure the quality of the Work and rate of progress.

9. The Contractor will not enter, occupy, or cause impacts to private land outside of easements, except by written permission of the landowner and prior written consent of the Owner. Copies of such written permission will be supplied to the Owner within three (3) days of receipt. The Contractor will be responsible for restoring all disturbed private property at no additional cost to the Owner.

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 UNIT PRICES

A. Payment will be made to the Contractor for the actual quantities of Work performed or materials furnished in accordance with the Drawings and Specifications. The scheduled quantities of Work to be done and materials to be furnished may each be increased or decreased without in any way invalidating the unit prices quote. The unit prices quote shall not change.

1.02 UNITS OF MEASURE

Listed below are selected abbreviations used in the FDOT Basis of Estimates.

AC	Acre
AS	Assembly
CF	Cubic Foot
CY	Cubic Yard
EA	Each
GA	Gallon
GM	Gross Mile
HR	Hour
LB	Pound
LF	Linear Foot
LO	Location
LS	Lump Sum
MG	Thousand Gallons
MH	Man Hour
MI	Mile
NM	Net Mile
PI	Per Intersection
SF	Square Foot
SY	Square Yard
TN	Ton

1.03 FINAL MEASUREMENTS

A. The Contractor shall make all measurements and check all dimensions necessary for the proper construction of the Work called for by the Drawings and Specifications; and, during the prosecution of the Work, he shall make all necessary measurements to prevent misfitting in said Work and shall record such accurate measurements of the construction on a set of construction drawings to be submitted to the Engineer for review with all progress payment applications.

B. The method of measuring the Work for payment under the various items shall be

as indicated below. In any event, the unit or lump sum price for the respective items shall include the installation complete, in all details, and ready for use.

1.04 PAY ITEMS

Quote Item No.
101-1 Mobilization – per LS

A. The Work specified in this item consists of the preparatory Work and operations in mobilizing for beginning Work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, and for the establishment of temporary offices, buildings, safety equipment, first aid supplies, sanitary and other facilities, as required by these Specifications, special provisions, and State and local laws and regulations. The costs of bonds, permits and any required insurance, and any other preconstruction expense necessary for the start of the Work, excluding the cost of construction materials, shall also be included in this item. The costs for audio-visual documentation, indemnification, and for provision of the field office shall be included in this item. The price to be paid for this item shall be based on such Work being completed and accepted, and the lump sum price quote. The standard retainage will be applied to this item.

Quote Item No.
101-2 Pre and Post Construction Video- Per LS

The Contractor is to provide a pre-construction video and a Post Construction video of the entire project limits in accordance with Section 01315 of these specifications. All videos to be provided through download via Microsoft OneDrive or equivalent.

Quote Item No.
101-3 Record Drawings- Per LS

Record drawings are required for all systems to be accepted by the Engineering Division. Record drawings will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

· Location of all valves, service lines, fittings and fire hydrants using at least two ties to permanent points (manholes, power poles, curbs, or storm water inlets). An acceptable station and offset system may be used for service lines and fittings only.

· Location of mains from property easement lines or edge of pavement at intervals of 300 feet.

· Elevations to the top of the mains at intervals of 300 feet and at all

drainage, roadway, highway and sewer main crossings. Bench mark to be shown on record drawings.

- Separation between reclaimed water, gravity sewer, drainage pipes, gas lines, or force mains and water mains if they are installed within 10 feet of water mains.

- Water main material and distance of mains from buildings or structures within 20 feet of the water main.

- Distance from hydrant to hydrant valve.

- Pertinent easement information.

- Certification by the surveyor or Engineer of Record accepting responsibility for accuracy of information supplied on the record drawings and a statement certifying that all mains are within easements and/or public right-of-way. The name "City of Cocoa" must appear on all record drawing survey information.

Record drawings will be drawn at an engineering scale that is legible and readable as determined by city staff. Areas requiring additional detail may be enlarged as necessary. Right-of-way, easements, and lot lines will be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on DEP Form 62-555.900(9) that the system depicted on the record drawing was constructed in substantial conformance with approved plans and will function as intended. Lot, block numbers, and street names will be included. Provide three (3) sets of signed and sealed record drawings and one (1) digital file including all reference files (XREF). AutoCAD 2010 or higher, or DXF format shall be provided to the City.

CAD drawing standards for record drawings will be available from the Engineering Division upon request. These standards will provide for isolated layer information, text height, font, line type and weight, specific standard symbols (blocks), etc. which will allow transfer of record drawing data to city as-built maps in a standardized format.

Quote Item No.
102-1 Maintenance of traffic – per LS

A. General: Work under this section consists of maintaining traffic within the limits of the project for the duration of construction in accordance with the U.S. Department of Transportation-Federal Highway Administration's

Manual On Uniform Traffic Control Devices (MUTCD) current edition, FDOT Index 102 Series and FDOT Standard Specification Section 102.

B. The Contractor must submit to the Owner and Brevard County a Traffic Control Plan (TCP) for review and approval, a minimum of 28 calendar days prior to the proposed activation of such plan. Any Alternative TCP submitted shall conform with FDOT Standard Specification Section 102. The purpose of the Traffic Control Plan is to depict the concept of feasible construction sequencing and maintenance of traffic (MOT). The TCP shall indicate typical signing, pavement marking and barricade locations and types. Additional details are found in the MUTCD, FDOT Index (102 Series) and Standard Specifications. Brevard County approval is required.

C. The Contractor shall provide a Worksite Traffic Supervisor, per FDOT Standard Specification Section 102-3.2, who shall be responsible for initiating, installing and maintaining all traffic control devices as described in these Contract Specification and Contract Plans and as described in Section 102.

The Contractor shall not isolate residences or places of business. Safe and stable access shall be provided to all residences and all places of business whenever construction interferes with the existing means of access, per Section 102-8.

D. Quantities: the Contractor is to determine the actual quantities and items to be used for MOT.

E. Prior to any required road closings, Contractor is to perform exploratory excavations and investigation as necessary to identify existing utilities locations (underground and overhead) and any conflict areas. Any required utility relocations to be scheduled and coordinated with Owner and utility companies prior to any road closing.

F. Traffic control techniques, including rerouting of traffic, signing and pavement markings, shall be in conformance with FDOT's *Manual on Traffic Control and Safe Practices*, most current edition. Road closings shall be per the TCP and specifications.

G. Only new fluorescent orange reflective sheeting, as specified in the FDOT Specifications, Section 994 shall be used for signs and barricades used in conjunction with MOT. The reflective sheeting on signs and barricades scratched or damaged to the point that reflectivity is impaired shall be replaced at no expense to the Owner.

H. All construction warning signs shall be 48" x 48" or larger along the project. All construction signs for signalized intersections shall be 48" x 48" or larger along cross roads. All construction signs for non-signalized intersections shall be 36" x 36" or larger along cross roads and shall be

supplied by the Contractor.

I. Driveways to private property, residences, businesses, etc., and all public street connections shall remain open except for very short periods associated with a critical, momentary point of construction operation.

J. Non-Compliance: Should the Owner or Engineer determine that traffic within the project is not being maintained in accordance with the approved TCP or presents a public safety concern, the Contractor shall have three (3) hours after notification is given, to take corrective action. Should the Contractor fail to take such corrective action, the Owner shall have the option to fine the Contractor $100 per hour (from the time of notification) until remedied and/or corrected the condition. The cost of such corrective action taken by the Owner shall be deducted from monies due the Contractor.

K. If drop-offs within the clear zone are greater than six inches (6") during a daylight moving operation (pipe installation, etc.), the Contractor shall furnish and install a temporary concrete barrier wall and relocate as operation proceeds, with temporary crash cushion (redirective option) at all ends. This specification supersedes, and is in addition to, FDOT Index 102 series.

L. Commercial materials for driveway maintenance shall be provided pursuant to FDOT Section 102-2.3 for all impacted driveways.

M. Temporary curb, curb relocation, temporary concrete barrier walls, and temporary crash cushions shall be provided pursuant to FDOT Section 102.

N. Portable changeable message signs (PCMS) shall be provided pursuant to FDOT Sections 102.99 and 900-4. Price and payment will be relocating, maintaining and removing changeable message signs.

Compensation: All compensation for Maintenance of Traffic shall be lump sum, except for temporary concrete barrier wall (furnish and install, and relocations) per FDOT Index 102-100, temporary crash cushions (furnish and install, and relocations). This shall include all items and services necessary for the safe maintenance of traffic within the project limits in conformance with the FDOT Index 102 Series and MUTCD 2009 Specifications. This shall include, but not be limited to barricades, flaggers, construction and advisory signing, detours, temporary pavement, temporary pavement markings, maintenance of pavement, asphaltic concrete curb, stormwater removals, temporary drainage structures and pipe, pumps, flashing arrow boards, high intensity flashing lights, removable and temporary pavement markings, traffic control (uniformed law enforcement) officer, steel traffic plates, temporary signal loops or cameras and temporary reflective pavement markers, for maintenance of traffic.

Quote Item No.

104-30 Erosion control – per LS

A. Provide erosion control measures on the project site and in areas outside the project site where Work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects to public or private property adjacent to the project site and damage to Work on the project. Construct and maintain temporary erosion control features or, where practical, construct and maintain permanent erosion control features as shown in the plans or as may be directed by the Engineer. The Contractor shall install erosion and water pollution control methods in accordance with FDOT Standard Specifications Section 104, and Best Management Practices (BMP) as described in the *Florida Land Development Manual: A Guide to Sound Land and Water Management.*

1. Pre-Construction Conference: At the pre-construction conference, the Contractor shall present, in written form, his plans & schedules for prevention, control, & abatement of erosion & water pollution in accordance with sections referenced above.

2. Staked silt fence shall be installed where shown on the plans and permits in accordance with standard construction practices, and in accordance with all Federal, State and local regulations. Quantities for this item are approximate only and are provided for Contractor's quoting purposes. Field conditions may require more or less fencing/barriers. Contractor to coordinate with Engineering Inspector. Additional silt fence may be required to meet water quality requirements. No additional payment will be made. Silt fence shall be maintained by the Contractor for the duration of the project. Maintenance and/or replacement of silt fence is included and no additional payment will be made.

3. Storm Sewer System: The Contractor shall protect the storm sewer system from erosion and sedimentation during construction. This may include the use of interlocking synthetic bales (per FDOT Specification Section 104-6.4.7), staked silt fences, or inlet protection systems (curb inlet filters), sediment barriers, or any other method approved by the Engineer. Should any construction item be damaged due to erosion or sedimentation, the Contractor shall repair or replace the item with no additional compensation.

4. When a National Pollutant Discharge Elimination System (NPDES) Permit is issued or approved by the U.S. Environmental Protection Agency (EPA) pursuant to Title 40 CFR (Code of Federal Regulations) Part 122, Section 26, the Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain the required FDEP-NPDES Notice of Intent Permit. The SWPPP will include the erosion control plan and all additional measures that will be employed to dispose of, control, or prevent the discharge of solid,

hazardous, and sanitary wastes to waters of the U.S. Include procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-stormwater discharges, such as contaminated groundwater or accidental spills. The owner will review and approve the Contractor's part of the SWPPP, including required signed certification statements, before soil disturbing activities begin.

The Contactor must provide the owner with two (2) signed copies of the SWPP plan and a copy of the NPDES Permit prior to commencing construction. Failure to sign any required documents or certification statements will be considered a default of the Contract. Any earth disturbing activities performed without the required signed documents or certification statements may be considered a violation of the Clean Water Act (CWA) by the EPA.

Quote Item No.
110-1-1 Clearing and grubbing – per LS

A. Clearing and Grubbing shall include compensation for removal and disposal of all vegetation, debris, trees, stumps, roots, and other such protruding objects, flexible pavement, concrete pavement, brick pavers, gravel, riprap, drainage structures and pipe, decommissioned AC waterline pipe and for backfilling the removal excavations and other facilities necessary to prepare the area of the proposed construction. All materials removed shall become property of the Contractor, and shall be removed from the project in a manner that meets all Federal, State, and local regulations concerning dumping of waste or construction materials. Any salvage value received from the removed materials shall be reflected in the Contractor's Proposal. Broken flexible pavement shall be disposed of outside the project by the Contractor.

B. In all areas shown in the plans to be cleared and grubbed, roots and other debris shall be removed to a depth of at least one foot below the ground surface. The surface shall then be plowed to a depth of at least six inches and all roots thereby exposed shall be removed to a depth of at least one foot. All stumps within the area to be cleared and grubbed shall be completely removed and disposed of by the Contractor. Where excavation is done, all roots, etc., protruding through or appearing on the surface of the completed excavation shall be removed to a depth of at least one foot below the excavation surface.

C. As an exception to the above provisions, where so indicated in the plans, designated in the Special Conditions or directed by the Engineer, desirable trees within the area to be cleared and grubbed shall be protected and left standing.

D. Property obstructions which are to remain in place; such as sewers, drains,

water or gas pipes, conduits, poles, paving, curbs, etc., are to be carefully protected from damage.

E. The Contractor shall maintain the existing ditches and swales where shown in the plans. The contractor shall furnish and install sod on maintained ditches as shown on the plans. Sod will be compensated for under the sod pay item.

All costs for relocation of mailboxes and new mailboxes that are broken are included under clearing and grubbing costs.

Quote Item No.
121-70 Flowable fill – per CY

A. Furnish and place flowable fill as shown or called for on the plans. Applications include beddings, encasements, pipes and general alternate backfill for trenches. Flowable fill mix design shall be in accordance with FDOT Section 121-3. Contractor to place flowable fill per FDOT Section 121-5. Testing of flowable fill shall be in accordance with FDOT Section 121-6.

Quote Item No.
327-70-6 Mill exist. asphalt pavement, 1.5" avg. depth – per SY

A. The Contractor is to remove existing flexible (asphalt) pavement by milling to improve the rideability and cross-slope of the finished pavement, to lower the finished grade adjacent to existing curb prior to resurfacing, or to completely remove existing pavement. The Contractor shall take ownership and be responsible for removal of all milled material.

B. The Contractor shall provide a milling machine capable of maintaining a depth of cut and cross slope that will achieve the results specified in the contract documents and plans. Use a machine with a minimum overall length (out to out measurement excluding the conveyor) of 18 feet and a minimum cutting width of 6 feet. The milling machine shall be equipped with a built in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results. The milling machine shall be equipped with means to effectively limit the amount of dust escaping during the removal operation.

C. The Contractor shall remove existing raised reflective pavement markers (RPMs) prior to milling. Cost of removing existing RPMs to be included in milling costs. Multiple cuts may be made to achieve the required pavement configuration or depth of cut. The Contractor shall include in the quality control plan a system to control the cross slope of the milling surface with a minimum frequency of one cross slope measurement every 250 feet during milling operations in order to ensure that the slopes are uniform and in compliance with the design milling slope. All milling operations shall meet

the requirements of Section 327 of the FDOT Specifications.

Quote Item No.
334-1-13 Superpave asphaltic concrete, traffic C, SP-12.5 – per TN

A. The prime coat shall only be applied after the flowable fill has met all the requirements as set forth in Section 121-3. The prime coat shall be as set forth in the drawings and its composition and application shall conform to requirements set forth in Section 121-3 through, and including, 300-7; except 300-7.4. The rate of application shall be 0.06 to 0.08 Gal/YD^2. A tack coat may become necessary prior to placement of the asphalt and after placement of a prime coat. The Engineer will determine if such a tack coat is necessary using Section 300-8 as a guide. The tack coat, if required, shall be composed of and applied as set forth in Sections 300-1, 300-2, 300-4, 300-5 and 300-8. The Contractor shall request a determination from the Engineer concerning the need for a tack coat prior to initiating asphalt placement. In all cases, a tack coat is required at the joint face between cured asphalt and curbs or other concrete surfaces.

Costs for prime and tack coats are included in the cost of the overlaying asphalt, and no separate payment shall be made.

B. The Contractor is to construct Superpave Asphalt Concrete pursuant to Section 334, with quality control confirming with the requirements of Sections 105 and 330-2. The Contractor shall utilize Superpave, Traffic Level C, SP-12.5, fine mix with asphalt binder per FDOT Section 334-2.2. All Superpave mixes to meet FDOT Sections 320 and 330. Asphalt shall not, under any circumstances, be placed until the flowable fill, Prime Coat (and Tack Coat, if necessary) have been properly installed, tested and inspected. Any flowable fill, or prime coat which becomes disturbed as a result of any activity, including acts of God, shall be restored prior to placement of asphalt, by the Contractor. The Contractor may choose any method or sequence of rolling the asphalt to achieve the required degree of compaction, however, any such method which is chosen must not cause undo displacement or blistering of the material and shall result in smooth consistent and a sealed surface which, when cooled and cured, will comply with all other requirements including line, grades, stability, etc. within these specifications. The Contractor is responsible for preventing traffic, or any other cause, from scarring or in any other way marring the finished asphalt until it is has had sufficient time to cool and cure. **Vibratory compaction is NOT Permitted.**

C. Asphaltic Concrete - Except as otherwise indicated in the plans and/or permits the asphaltic concrete to be used throughout the Work shall be FDOT Superpave Type SP-12.5 traffic level C for structural course (conforming to FDOT specifications for materials composition and method of manufacturer). Extraction and gradation analysis testing shall be performed on every mix in the field regardless of tonnage. Alternate types

of asphalt shall not be allowed except as indicated above. An approved engineering laboratory test report confirming the composition and stability of the asphalt is required for each day and/or each mix asphalt as produced and placed at this site and must be provided to the Owner and/or Engineer by the engineering laboratory or Contractor. The placement of all asphalt shall, after grading, rolling, etc. conform to the finish line, grade, thickness and stability required in the specifications, plans and permits.

D. All cracks, pot holes, or other imperfections, if any, shall be repaired prior to resurfacing, including a leveling course, if necessary. All repair Work shall conform to FDOT specifications.

Construction of asphalt pavement shall be in accordance with FDOT Standard Specifications Sections 330-2.2, 330-8, 330-9, 330-10 and 330-12. The Contractor shall notify the Owner of the location and time for acceptance testing a minimum of 48 hours before beginning testing. Perform acceptance testing for surface tolerance on all pavement lanes where the width is constant and document all deficiencies on a form approved by the owner. Provide traffic control in accordance with Index Series 600 during all testing. Include the cost of this traffic control and testing in the contract quote price for the asphalt item.

Upon completion of the final surface, perform acceptance testing for surface tolerance on the finished surface with a 15 ft. rolling straight edge - correct all deficiencies in excess of 3/16-inch in accordance with FDOT Section 330-12.5.1.

The Contractor may select one of the following methods for correcting deficiencies as follows (at Contractor's expense):

1. Removing and replacing: If correction is made by removing and replacing the pavement, remove and replace the full depth of the course and extend at least 50 ft. on both sides of the defective area for the full width of the paving lane (at Contractor's expense).

2. Overlaying: If correction is made by overlaying, cover the length of the defective area and taper uniformly to a feather edge thickness at a minimum distance of 50 ft. on both sides of the defective area. Extend the overlay the full width of the roadway. Maintain the specified cross slope. The Engineer or Owner may adjust, as necessary, the mix used for the overlay for this purpose.

The Contractor shall measure the cross-slope with a minimum frequency of one check every 100 feet during paving operations to ensure that the slopes are uniform and compliance with the designed slope. When the difference between the measured cross-slope and the design cross-slope exceeds ∀ 0.2% for travel lanes including turn lanes and ∀0.5% for shoulders make all

corrections immediately to bring the cross-slope into an acceptable range. The Engineer or Owner will periodically verify the Contractor=s measurements at the job site, record all the measurements performed by the Contractor and submit to the Engineer/Owner for documentation. When the variance of cross-slope measurements is consistently within the acceptance range, the frequency of cross-slope checking can be reduced to one measurement every 250 feet during paving operations.

Density Testing will be in accordance with Section 334-5 of the FDOT Specifications.

For the Work specified under this section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. The pay quantity will be based on the project average spread rate, excluding overbuild, limited to a maximum of 105% of the spread rate; 110 LB/SY per one inch (1") thickness. The quote price for the asphalt mix will include the cost of the asphalt binder, asphalt cement, anti-stripping agent, blending and handling and the tack coat application as directed in FDOT Section 300-8, as well as any fiber stabilizing additive and hydrated lime (if required). There will be no separate payment or unit price adjustment for asphalt binder material in the asphalt mix.

Quote Item Nos.
570-1-3 Sod, Bahia – per SY
570-1-4 Sod, St. Augustine (contingency) – per SY

A. Sodding, water and fertilizer shall be in accordance with FDOT Sections 570, 981, 982 and 983. Sod for the project shall be Bahia. In locations where homeowner has St. Augustine sod, all replacement sod shall be St. Augustine sod. Sod to be pinned on slopes steeper than 3H:1V and where indicated on plans. All costs of sod will be as shown on the quote forms. The contractor is responsible for all care, mowing, string trimming (slopes 3H:1V or steeper), watering, fertilizing of the sod (per FDOT specifications), and all other related Work necessary to complete the project (included in cost of sod quantity item). Sod shall be placed, typically within the limits of construction identified in the plans. Areas where storm drain pipe, inlets, mitered end sections, and swale regrading is required will require sodding adjacent to the structures. Additional sodding beyond the limits of construction, required by Owner, may be necessary and will be paid for based on actual final measurement. Quantity for sodding shown in quote forms is approximate based on projected regrading. Sod must be rooted to the ground, 95% minimum weed-free, and green, for final acceptance by Owner. Top of sod to be flush with edge of sidewalk and existing sod tie-in, and 1" below roadway edge of pavement (per FDOT Index 570-010). Cost for final preparation of earthwork, rock and debris removal, and any other activities and/or materials required prior to placement of sod shall be included in the contract quote price for sod.

Quote Item No.
706-1-3 Raised pavement marker, class B – per EA
711-11-221 Thermoplastic, std., yellow, solid, 6" – per LF

A. The Work under this Section consists of placing traffic stripes and markings in accordance with the details shown in the plans, using a thermoplastic compound meeting the requirements specified herein.

B. All pavement markings not otherwise specified on plans shall be thermoplastic. Thermoplastic traffic striping and markings shall be in accordance with Section 711 of the FDOT Specifications.

C. The thermoplastic compound shall be extruded onto the pavement surface in a molten state by mechanical means, with surface application of glass spheres, when required, and upon cooling to ambient pavement temperatures, shall produce an adherent pavement marking of specified thickness and width, and capable of resisting deformation.

Where indicated in the plans, removal of existing striping shall be accomplished by grinding, unless otherwise approved by the Project Engineer or Owner. This item is considered incidental to the project and separate payment will not be made. All temporary pavement markings and temporary raised pavement markers (RPMs) shall be included in the quote price for maintenance of traffic.

Contractor shall furnish and install Class B (hard abrasion resistant lens) raised pavement markers (RPMs) meeting the requirements of FDOT Sections 706 and 970. Apply RPMs to the bonding service using bituminous adhesives per FDOT Section 706-4 and 970-2. Contractor to furnish and install Amber/Amber and Red/Colorless RPMs and Blue Fox Fire Hydrant Locations where shown on the plans, and pursuant to FDOT Specifications and FDOT Index 706-001. Price and payment will be full compensation for all work specified in this section.

Quote Item No.
1050-31-212 12" PVC water main – per LF
1050-51-208 8” DIP water main – per LF
1050-51-212 12" DIP water main – per LF
2050-31-208 8" PVC force main – per LF
2050-51-208 8" DIP force main – per LF
3050-31-212 12" PVC reclaimed water main – per LF
3050-51-212 12" DIP reclaimed water main – per LF

A. The actual length of pipe installed shall be measured horizontally along the pipe centerline from the start of construction to its termination with no deduction made for valves and fittings. Pipe installation will be paid for at the applicable contract unit price per linear foot (LF) for the type of service, size and type of pipe, as listed in the Schedule of Prices, which price shall include the furnishing of all labor, materials, and equipment necessary to complete the Work, including all surveying, excavation, dewatering, pipe laying, jointing, marking tape and locating wire, thrust restraint, backfilling, compaction, surface restoration, planting removal/replacement, temporary hardscape relocation or support, 2" temporary jumper, connections to existing systems, removing excess material, disinfection, testing, clean-up, and all items necessary to construct the piping systems complete and ready for service unless specifically covered by other pay items specified under this Contract.

1. In addition to the above, pipe restraint shall include mechanical joint restraint and thrust blocking for fittings and pipe requiring restraint as identified in the contract documents.

2. In addition to the above, pipe installation shall include temporary relocation of existing mailboxes, signs, or any structures that may be in the way during pipe installation.

3. In addition to the above, pipe installation shall include structurally supporting of existing trees, poles, walls, etc., that may be in the way during pipe installation.

Quote Item No.
1050-41-212 Jack and bore 12" Steel pipe (water main) – Per LF
2050-41-208 Jack and bore 8" Steel pipe (force main) – Per LF
3050-41-212 Jack and bore 12" Steel pipe (reclaimed water main) – Per LF

Furnish & install jack and bore steel casings and steel pipes of the sizes and locations shown on the plans, and per FDOT Road & Bridge Specifications Section 556 and Florida East Coast Railway General Specifications.

Steel casing pipes shall meet current ASTM A53 specifications, grade B, with black bituminous coating for protection against corrosion. All joints shall be welded in accordance with AISC specifications, Section 1-7-2. All joint welds shall be full penetration.

Steel carrier pipes shall meet current ASTM A53 specifications. All joints shall be welded or of an approved mechanical type.

Spacers to be T-304 stainless steel or fusion coated steel spacers. Distance between spacers to be per manufacturer's specifications.

The unit cost of this bid item shall include: F&I of steel casing, steel carrier pipes,

coatings, welding, spacers, casing vents, casing end seals, coatings, and any other materials and labor required to complete a full installation.

1050-41-214 Direct bore 14" HDPE (water main) – Per LF
2050-41-210 Direct bore 10" HDPE (force main) – Per LF
3050-41-214 Direct bore 14" HDPE (reclaimed water main) – Per LF

Furnish & install horizontal directional drilling of the size and location shown on the plans, and per Cocoa Utilities Department Technical Provisions Section 2.5.13.

Quote Item No.
1055-1 Water pipe fittings – per TN
2055-1 Force main fittings – per TN
3055-1 Reclaimed water main fittings – per TN

A. The actual number of tons of ductile iron fittings furnished and installed complete with joint accessories will be measured for payment. Tabulated fitting weights, with joint accessories, included in this Section and developed from ANSI/AWWA Standard C-110/A.21.10 (Standard Fitting Weights) and ANSI/AWWA Standard C-153/A21.53 (Compact Fitting Weights) shall be utilized to determine the weight of all fittings. The total weight for each size will be the sum of the individual reference weights of each installed fitting, expressed in tons (2000 pounds). Fittings will be paid for at the applicable contract unit price per ton as listed in the Schedule of Prices which price shall include the furnishing of all labor, material and equipment necessary to complete the Work, including excavation, dewatering, placing and jointing fittings to pipe, restraint devices, tie-rods or harness bands, testing , disinfecting, backfilling, compaction, temporary jumper connections, cleaning-up and all other operations necessary to complete the installation of the fittings.

Quote Item Nos.
1080-11-304 6” Gate valve (water main) – per EA
1080-11-402 8” Gate valve (water main) – per EA
1080-11-404 8" Gate valve in manhole (water main) – per EA
1080-11-405 12" Gate valve (water main) – per EA
1080-25-104 2” Blow-off valve (water main) – per EA
2080-11-304 8" Gate valve (force main) – per EA
2080-26-106 Air/vac assembly (force main) – per EA
3080-11-304 12" Gate valve (reclaimed water main) – per EA
3080-11-404 12" Gate valve in manhole (reclaimed water main) – per EA

A. Payment for valves and appurtenances shall be based on the actual number of units installed in the locations shown on the plans or as directed by the Owner at the unit price of each (EA) as listed in the Schedule of Prices. Payment shall include costs for all labor and materials required for the installation complete. Valves and appurtenances shall include valve tags,

valve boxes, bedding rock and concrete collars; flushing valves shall include all pipe, fittings, valve boxes, bedding rock, and concrete collars; back-flow assemblies shall include all pipe, fittings, valves, taps, etc. to make the necessary jumper connection. This pay item does not include valves for line tapping assemblies.

Quote Item Nos.
1080-11-303 6"×6" Tapping sleeve & valve – per EA
1080-11-403 12"×10" Tapping sleeve & valve – per EA

A. The Work specified in this item consists of furnishing and installing water valve(s) and tapping tee(s) as indicated on the Drawings. The quantity for payment will be made at the contract unit price of each (EA) as listed in the Schedule of Prices. Payment will be made for each type and size of valve acceptably furnished and installed. The unit price will include all cost of excavation and backfill, dewatering, sheeting, furnishing and installing water valves, valve boxes, tapping tees, mechanical restraining devices, concrete pads, and all other Work required for a complete and satisfactory installation as specified and shown on the Drawings. The unit price will also include the cost of recertifying existing back flow prevention devices that are being tapped and that are to remain in service as identified by the City.

Quote Item Nos.
1644-116-08 Fire Hydrant – per EA

A. Furnish and install fire hydrants at the plan locations, and per the City of Cocoa Utilities Department details and technical provisions

FITTING WEIGHTS WITH JOINT ACCESSORIES

A. The following tabulated fitting and joint accessory weights were developed from ANSI/AWWA Standard C-l 10/A2l.10 (Standard Fitting Weights) and ANSI/AWWA Standard C-l 53/A2 I .53 (Compact Fitting Weights). Compact fitting weights will be noted "(CF)". All thrust restraint devices and accessories shall be included in the unit price of pipe indicated as RJ (Restrained Joint) to the limits shown in drawings.

4-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	26 lb. (CF)	26 lb. (CF)
45°	22 lb. (CF)	22 lb. (CF)
22-1/2°	20 lb. (CF)	20 lb. (CF)
11-1/4°	20 lb. (CF)	20 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE

4x3	35 lb. (CF)	---	39 lb.	--- lb.
4x4	36 lb. (CF)	---	45 lb. (CF)	--- lb.

Sleeves:	Short	Long
	19 lb. (CF)	25 lb. (CF)

Caps/Plugs:	Caps	Plugs
(Dished/Flat)	10 lb.	9 lb.

(CF) Compact Fitting Weights per ANSI/AWWA Standard Cl53/A2 l.53.

6-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	49 lb. (CF)	45 lb. (CF)
45°	39 lb. (CF)	38 lb. (CF)
22-1/2°	31 lb. (CF)	33 lb. (CF)
11-1/4°	29 lb. (CF)	32 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
6x3	51 lb.(CF)	--- lb.	--- lb.	--- lb.
6x4	52 lb.(CF)	--- lb.	62 lb.	--- lb.
6x6	66 lb.(CF)	--- lb.	79 lb. (CF)	--- lb.

Sleeves:	Short	Long
	28 lb. (CF)	39 lb. (CF)

Caps/Plugs:	Caps	Plugs
(Dished/Flat)	18 lb.	18 lb.

(CF) Compact Fitting Weights per ANSI/AWWA Standard CJ 53/A21.53.

8-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	64 lb. (CF)	64 lb. (CF)
45°	56 lb. (CF)	55 lb. (CF)
22-l/2°	50 lb. (CF)	51 lb. (CF)
11- 1/4°	45 lb. (CF)	44 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE

8x4	72 lb. (CF)	--- lb.	84 lb. (CF)	--- lb.
8x6	79 lb. (CF)	79 lb.	98 lb. (CF)	--- lb.
8x8	90 lb. (CF)	83 lb.	112 lb. (CF)	--- lb.

Reducers:	MJ	PE	SEMJ-LEPE	LEMJ-SEPE
8x4	36 lb.(CF)	56 lb. (CF)	56 lb. (CF)	60 lb. (CF)
8x6	39 lb.(CF)	62 lb. (CF)	67 lb. (CF)	64 l

Sleeves:	Short	Long
	38 lb. (CF)	55 lb. (CF)

Caps/Plugs:	Caps	Plugs
(Dished/Flat)	26 lb.	25 lb.

(CF) Compact Fitting Weights per ANSI/AWWA Standard CJ53/A2l.53.

l0-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	102 lb. (CF)	108 lb. (CF)
45°	78 lb. (CF)	78 lb. (CF)
22-1/2°	66 lb. (CF)	66 lb. (CF)
11-1/4°	59 lb. (CF)	60 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
10x4	82 lb. (CF)	--- lb.	98 lb. (CF)	--- lb.
10x6	99 lb. (CF)	--- lb.	121 lb. (CF)	--- lb.
10x8	116 lb. (CF)	--- lb.	135 lb. (CF)	--- lb.
10x10	132 lb. (CF)	133 lb.	156 lb. (CF)	--- lb.

Reducers:	MJ	PE	SEMJ-LEPE	LEMJ-SEPE
10x4	53 lb. (CF)	--- lb. (CF)	46 lb.(CF)	51 lb.(CF)
10x6	59 lb. (CF)	49 lb. (CF)	48 lb.(CF)	52 lb.(CF)
10x8	54 lb. (CF)	47 lb. (CF)	52 lb.(CF)	52 lb.(CF)

Sleeves:	Short	Long
	48 lb. (CF)	68 lb. (CF)

Caps/Plugs:	Caps	Plugs
(Dished/Flat)	32 lb.	36 lb.

(CF) Compact Fitting Weights per ANSI/ AWWA Standard C 153/A21 .53.

12-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	129 lb.(CF)	114 lb.(CF)
45°	102 lb.(CF)	104 lb.(CF)
22-1/2°	87 lb.(CF)	89 lb.(CF)
11-1/4°	82 lb.(CF)	79 lb.(CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
12x4	108 lb. (CF)	--- lb.	119 lb. (CF)	--- lb.
12x6	119 lb. (CF)	--- lb.	138 lb. (CF)	--- lb.
12x8	126 lb. (CF)	--- lb.	149 lb. (CF)	--- lb.
12x10	159 lb. (CF)	--- lb.	189 lb. (CF)	--- lb.
12x12	171 lb. (CF)	--- lb.	202 lb. (CF)	--- lb.

Reducers:	MJ	PE	SEMJ-LEPE	LEMJ-SEPE
12x4	67 lb. (CF)	60 lb. (CF)	61 lb.(CF)	68 lb.(CF)
12x6	64 lb. (CF)	54 lb. (CF)	58 lb.(CF)	66 lb.(CF)
12x8	57 lb. (CF)	60 lb. (CF)	62 lb.(CF)	65 lb.(CF)
12x10	63 lb. (CF)	57 lb. (CF)	61 lb.(CF)	65 lb.(CF)

Sleeves:	Short	Long
	62 lb. (CF)	81 lb. (CF)

Caps/Plugs:	Flat	Dished
	109 lb.	109 lb.

(CF) Compact Fitting Weights per ANSI/ AWWA Standard C 153/A21 .53.

1.04 PIGGING AND FLUSHING

A. The City of Cocoa Utilities Department requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be use as a guide and in no way to be construed as means and methods.

The following terminology may be use in the discussion or operation of the pigging procedure.

Pigs shall be manufactured of a 2lb. per cu/ft density open cell polyurethane foam body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a “wye”, “tee” or simple inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a “wye”, “tee” or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4"; 180 gpm for 6"; 320 gpm for 8". Flow rates and jumper assemblies for mains 10" and larger will be determined by the Engineer of Record and approved by the City of Cocoa Utilities Department.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Utilities Department. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the "swab" into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of Utility personnel to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete, if not flushing will continue until water is clear.

1.05 WORK NOT LISTED IN QUOTE SCHEDULE

A. The General Conditions and items in the special provision, general requirements, and Specifications which are not listed in the Quote Schedule are, in general, applicable to more than one listed Work item, and no separate payment is provided therefore. Include the cost of Work not listed, but necessary to complete the project designated in the Contract Documents, in the various listed quote items.

B. The quotes for the Work are intended to establish a total cost for the Work in its entirety. Should the Contractor feel that the cost for the Work has not been established by specific items in the Quote Schedule, he shall include the cost for that Work in some related quote item so that his proposal for the project does reflect his total cost for completing -the Work in its entirety.

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01030

SPECIAL PROJECT PROCEDURES

PART 1- GENERAL

1.01 PUBLIC NUISANCE

A. The Contractor will not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.

B. No extra charge may be made for time lost due to Work stoppage resulting from the creation of a public nuisance.

1.02 SPECIAL REQUIREMENTS

A. The following requirements will govern:

1. No additional payment will be made for pumping or other difficulties encountered due to water. This will include difficulties related to both groundwater and stormwater or stormwater runoff
2. Contractor shall provide notification to FDOT and Brevard County per their permits. The FDOT permit includes requirements for Brightline notification.
3. The Contractor will, prior to interrupting a utility service (water, sewer, etc.) for the purpose of making cut-ins to the existing lines or for any other purposes, provide 48 hour written notification to affected customers, Brevard County, and City of Cocoa Field Operations Personnel. All valves will be operated by the Owner's personnel.
4. From investigations, including surveys made at the site, it may be assumed that physical conditions are approximately as indicated on the Drawings, but the nature of the materials below the surface, or the depth to satisfactory foundations, are not guaranteed. The Contractor is to satisfy himself as to the location, type, material and depth of all improvements impacted by the proposed construction.
5. Certain information regarding the reputed presence, size, character and location of existing underground structures, pipes and conduits has been shown on the Contract Drawings. There is no certainty of the accuracy of this information, and the location of underground structures shown may be inaccurate and other obstructions than those shown may be encountered. The Contractor hereby distinctly agrees that the Owner and Engineer are not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; and that in no event is this information to be considered as a part of the Contract; and that consideration for equitable compensation will be made for conditions materially different from those shown on the Drawings, as determined by the Owner/Engineer/ It shall be the Contractor’s

responsibility to verify the location of existing utilities. Deviations shall be promptly reported to the Owner and Engineer.

6. The Contractor will, prior to removal of existing water main, shut off flow to existing water main for a 48 hour period to verify all service connections have been cut over to new water main. Any existing line shutoffs shall occur before noon and not on Fridays or weekends.

1.03 EXISTING UTILITIES

A. Contractor is responsible for locating and protecting all existing underground and overhead utilities.

B. Any utility conflicts are to be promptly reported to the City and the Engineer.

C. Costs for any required FPL pole holds or any other utility company coordination efforts are incidental to the project. Contractor is to include all such costs in the unit price for utility infrastructure installation. No separate payment will be made.

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION (NOT USED)

*****END OF SECTION*****

SECTION 01041

PROJECT COORDINATION

PART 1 - GENERAL

1.01 WORK INCLUDED

A. Furnish personnel and equipment that will be efficient, appropriate and large enough to secure a satisfactory quality of Work and a rate of progress that will ensure the completion of the Work within the Contract Time. If at any time such personnel appear to the Owner to be inefficient, inappropriate or insufficient for securing the quality of Work aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor will conform to such order. Failure of the Owner to give such order will in no way relieve the Contractor of his obligations to secure the quality of the Work and rate of progress.

1.02 PRIVATE LAND

A. The Contractor will not enter or occupy private land outside of easements, except by prior written permission of the owner of such private property and the Owner.

1.03 PIPE LOCATIONS

A. Pipelines will be constructed substantially as indicated on the Drawings, but the Owner reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different or additional fittings where required. Hydrants are intended to be constructed within existing Rights of Way or Easements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 COOPERATION WITH THIS CONTRACT

A. The Contractor will be responsible for coordinating all subcontractors and trades and for incorporating the Work of all subcontractors or trades where necessary and as required.

B. Cutting and patching, drilling and fitting will be carried out where required by the trade or subcontractor having jurisdiction, however, the Contractor will be solely responsible for this Work.

C. Contractor is responsible for coordination with all utility companies and right-of-

way representatives, and cooperation in protecting existing utilities, to minimize service disruptions for any existing utilities.

3.02 PROTECTION OF CONSTRUCTION AND EQUIPMENT

A. All newly constructed Work will be carefully protected from damage in any way. All portions damaged will be reconstructed by the Contractor at his expense.

B. Protect all structures in a suitable manner to prevent damage. Should any part of a structure become heaved, cracked or otherwise damaged, all such damaged portions of the Work will be completely repaired and made good by the Contractor at his own expense and to the satisfaction of the Owner. If in the final inspection of the Work, any defects, faults or omissions are found, the Contractor will cause the same to be repaired or removed and replaced by proper materials and Workmanship without extra compensation for the materials and labor required. Further, the Contractor will be fully responsible for the satisfactory maintenance and repair of the construction and other Work undertaken herein and any damages caused by the performance of the Work, for at least the warranty period described in the Contract.

*****END OF SECTION*****

SECTION 01050

FIELD ENGINEERING

PART 1- GENERAL

1.01 WORK INCLUDED

A. Provide and pay for field engineering services required for Project.

1. Survey Work required in execution of Project.
2. Civil, structural or other professional engineering services specified or required to execute Contractor's construction methods.
3. The method of field staking for the construction of the Work will be at the option of the Contractor.
4. The accuracy of any method of staking will be the responsibility of the Contractor. All engineering for vertical and horizontal control will be the responsibility of the Contractor.
5. The Contractor will be held responsible for the preservation of all stakes and marks. If any stakes or marks are carelessly or willfully disturbed by the Contractor or the public, they will be replaced at no cost to the Owner. The Contractor will not proceed with any Work until he has established such points, marks, lines and elevations as may be necessary for the prosecution of the Work.

B. Where survey Work is required to execute the Contractor's construction methods, the Contractor will retain the services of a registered land surveyor licensed in the State of Florida for that Work.

1.02 PERMITS AND LICENSES

A. The Contractor will obtain and pay for all permits and licenses related to his Work as required by laws or regulations and as provided for in the Conditions of the Contract except as specified in Section 01065.

PART 2- PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01065

PERMITS AND FEES

PART 1- GENERAL

A. The Contractor will obtain and pay for all permits and licenses related to his Work as provided for in the Conditions of the Contract except as otherwise provided herein.

B. Permits by Owner: The Owner has obtained the following permits related to the proposed Work.

1. Florida Department of Environmental Protection General Permit for Construction of Water Main Extensions 0124889-1014-DSGP, Dated August 8, 2017.
2. Florida Department of Transportation Utility Permit # 2017-H-590-175, Dated September 1, 2017.
3. Brevard County Right-of-Way Use Permit #21RW01502, Dated November 18, 2022.

C. See attached Appendix "A" for copy of Permits

PART 2 - PRODUCTS (NOT USED)

PART 3 -EXECUTION (NOT USED)

**** END OF SECTION****

SECTION 01070
ABBREVIATIONS AND SYMBOLS

PART 1 - GENERAL

A. Referenced Standards: Any reference to published specifications or standards of any organization or association will comply with the requirements of the specification or standard which is current on the date of Advertisement for Quotes. In case of a conflict between the referenced specifications or standards, the one having the more stringent requirements will govern. In case of conflict between the referenced specifications or standards and the Contract Documents, the Contract Documents will govern.

B. Abbreviations:

AA	-	Aluminum Association
AASHTO or	-	American Association of State Highway & Transportation Officials
AASHO	-	The American Association of State Highway Officials
ABPA	-	Acoustical and Board Products Association
ACI	-	American Concrete Institute
AGA	-	American Gas Association
AGMA	-	American Gear Manufacturers Association
AI	-	The Asphalt Institute
AIEE	-	American Institute of Electrical Engineers (Now IEEE)
AIMA	-	Acoustical and Insulating Materials Association
AISC	-	American Institute of Steel Construction
ANSI	-	American National Standard Institute
API	-	American Petroleum Institute
APWA	-	American Public Works Association
AREA	-	American Railway Engineering Association
ASA	-	American Standards Association (Now ANSI)
ASCE	-	American Society of Civil Engineers
ASHRAE	-	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	-	American Society of Mechanical Engineers
ASCBC	-	American Standard Safety Code for Building Construction
ASTM	-	American Society for Testing and Materials
AWPA	-	American Wood Preservers Association
AWPB	-	American Wood Preservers Bureau
AWS	-	American Welding Society
AWWA	-	American Water Works Association
CRSJ	-	Concrete Reinforcing Steel Institute
CS	-	Commercial Standard
DOT Spec.	-	Standard Specifications for Road and Bridge Construction, Florida Department of Transportation

E/A	-	Engineer and/or Architect
FS	-	Federal Standards
GPM	-	Gallons Per Minute
FDEP	-	Florida Department of Environmental Protection
FDOT	-	Florida Department of Transportation
HP	-	Horsepower
ID	-	Inside Diameter
IEEE	-	Institute of Electrical and Electronic
IPCEA	-	Engineers Insulated Power Cable
NBFU	-	Engineers Association National Board of Fire Underwriters
NBS	-	National Bureau of Standards
NEC	-	National Electrical Code
NECA	-	National Electrical Contractors' Association
NEMA	-	National Electrical Manufacturers' Association
NFPA	-	National Fire Protection Association
NPT	-	National Pipe Threads
NSF	-	National Sanitation Foundation
OD	-	Outside Diameter
OSHA	-	U.S. Department of Labor, Occupational Safety and Health Association
PCA	-	Portland Cement Association
PCI	-	Prestressed Concrete Institute
PS	-	United States Products Standards
PSIG	-	Pounds Per Square Inch Gauge
RPM	-	Revolutions Per Minute
SAE	-	Society of Automotive Engineers
SDI	-	Steel Decks Institute
SJI	-	Steel Joists Institute
SMACNA	-	Sheet Metal and Air Conditioning Contractors' National Association
SSPC	-	Structural Steel Painting Council
STA	-	Station
TDH	-	Total Dynamic Head
UL	-	Underwriter's Laboratories, Inc.
USASI or USAS	-	United States of American Standards Institute (Now ANSI)

C. Additional abbreviations and symbols are shown on the Drawings.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01152

APPLICATIONS FOR PROGRESS PAYMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Submit Applications for Progress Payments to Owner in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.

1.02 RELATED REQUIREMENTS

A. Agreement between Owner and Contractor.

B. Conditions of the Contract: Progress Payments, Retainages and Final Payment.

1.03 FORMAT AND DATA REQUIRED

A. Submit applications typed on forms provided by the Owner.

B. Supporting Data

1. To receive approval for payment for materials stored but not incorporated into the Work, submit the following appended to the Application for Payment.

    a. Copies of delivery tickets.
    b. Copies of vendor invoices (which match delivery tickets) included with the Application for Payment in which the materials first appear.
    c. Copies of paid vendor invoices from the previous application showing that Contractor has paid for stored materials. Owner may deduct amounts from current Application for Payment where Contractor fails to provide proof of payment for stored materials claimed in previous Applications.
    d. Unless covered and included by a Change Order, the quantities of materials listed on the Quote Form represent the maximum payable for stored materials.
    e. Updated copy of the Progress Schedule.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

A. When the Owner requires substantiating data, Contractor will submit suitable information, with a cover letter identifying:

1. Project.

2. Application number and date.
3. Detailed list of enclosures.
4. For stored products :
    a. Item number and identification as shown on Application.
    b. Description of specific material.

B. Submit one copy of data and cover letter for each copy of application.

C. In addition, the Contractor's up-to-date mark-up set of contract drawings, as specified in Section 01720, will be made available for review. If the mark-up set is not up-to- date, it will be considered cause for withholding payment.

D. Final payment will not be made until the Contractor has prepared and submitted to the Owner complete as-built plans.

E. Updated construction schedule

1.05 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

A. Fill in Application form as specified for progress payments.

B. Use continuation sheet for presenting the final statement of accounting.

1.06 SUBMITTAL PROCEDURE

A. Submit Application for Payment to the Owner at the times stipulated in the Agreement.

B. Number: Seven copies of each Application, all originally signed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01200

PROJECT MEETINGS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. Project meetings will be held prior to and during construction of the project. Meetings, scheduling, attendance and agenda will be as indicated in this Section, below.

1.02 DESCRIPTION

A. The Owner or their Representative will schedule and administer the preconstruction meeting.

B. The Owner or their Representative will schedule and administer periodic progress meetings and specifically called meetings throughout the progress of the Work. The Owner will prepare agenda for these meetings, distribute written notice of each meeting seven days in advance of the meeting date, and make physical arrangements for the meetings. The Owner will preside at the progress meetings, record the minutes, including all significant proceedings and decisions. The Owner will reproduce and distribute copies of minutes within seven (7) days after each meeting to all participants in the meeting and to all parties affected by decisions made at the meeting.

C. Representatives of contractors, subcontractors and suppliers attending meetings will be qualified and authorized to act on behalf of the entity each represents.

D. The Owner will attend progress meetings to ascertain that Work is expedited consistent with the Contract Documents and the construction schedules.

E. Related Requirements:

1. Section 01010: Summary of Work
2. Section 01310: Construction Schedules
3. Section 01340: Shop Drawings, Product Data, and Samples
4. Section 01720: Project Record Documents

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION

3.01 PRECONSTRUCTION MEETING

A. The Owner will schedule the meeting within fifteen (15) days after Notice of Award of Contract.

B. The location of the meeting will be designated by the Owner

C. The following parties will attend the meeting:

1. Owner's Representative
2. Resident Project Representative
3. Contractor's Superintendent
4. Others as appropriate.

D. Suggested Agenda:

1. Distribution and discussion of:
   a. List of major subcontractors and suppliers
   b. Projected Construction Schedules
2. Critical Work sequencing
3. Major equipment deliveries and priorities
4. Project coordination
   a. Designation of responsible personnel
5. Procedures and processing of:
   a. Field decisions
   b. Proposal requests
   c. Submittals
   d. Change Orders
   e. Applications for Payment
6. Adequacy of distribution of Contract Documents
7. Procedures for maintaining Record Documents
8. Use of premises: Owner's requirements
9. Construction facilities, controls and construction aids
10. Temporary utilities
11. Safety and first aid procedures
12. Security procedures
13. Liquidated damages
14. Substantial completion
15. Final completion

3.02 PROGRESS MEETINGS

A. The Owner may schedule regular weekly progress meetings and will conduct called meetings as required by progress of the Work.

B. The meetings will be held at the field office of the Contractor or at other locations made available by the Contractor.

C. The following parties will attend the meetings:

1. Owner and any professional consultants as needed.
2. Contractor’s Superintendent.
3. Others as required.

D. Suggested Agenda:

1. Review approval of minutes of previous meeting.
2. Review of Work progress since previous meeting.
3. Field observations, problems, and/or conflicts.
4. Problems that impede Construction Schedule.
5. Review of off-site fabrication, delivery schedules.
6. Corrective measures and procedures to regain projected schedule.
7. Revisions to Construction Schedule.
8. Plan progress schedule during succeeding Work period.
9. Coordination of schedules.
10. Review submittal schedules; expedite as required.
11. Maintenance of quality standards.
12. Review proposed changes for:
    a. Effect on Construction Schedule and on completion date.
    b. Effect on other components of the Project.
13. Other business.
14. Estimates for progress payment.

*****END OF SECTION*****

SECTION 01310

CONSTRUCTION SCHEDULES

PART 1- GENERAL

1.01 CONSTRUCTION SCHEDULE

A. Initial Construction Schedule

1. Promptly after Award of the Contract, the Contractor will prepare and submit to the Owner construction schedules for the Work, with schedules of related activities that are essential to its progress. Approval of the initial construction schedule is required prior to the issuing of the Notice to Proceed.

B. Revised Construction Schedules

1. The Contractor will submit revised construction schedules at monthly progress meetings.

1.02 FORM OF SCHEDULES

A. Prepare schedules in the form of a horizontal bar chart.

1. Provide separate horizontal bar for each trade or operation.
2. Horizontal time scale: Identify the first Work day of each week.
3. Scale and spacing: Allow ample space for notations and future revisions.

B. Format of listings will be the chronological order of the start of each item of Work.

1.03 CONTENT OF SCHEDULES

A. Construction Schedule:

1. Show the complete sequence of construction by activity.
2. Show the dates for the beginning and completion of each major item of construction, as listed in the Quote Proposal.
3. Provide a Cash Flow Projection for each item, as of the first day of each month.

B. Submittals Schedule for Shop Drawings, Product Data and Samples. Show:

1. The dates for Contractor's submittals.
2. The dates reviewed submittals will be required from the Owner.

1.04 PROGRESS REVISIONS

A. Indicate progress of each activity to date of submission.

B. Show changes occurring since previous submission of schedule.

1. Major changes in scope.
2. Activities modified since previous submission.
3. Revised projections of progress, cash flow and completion.
4. Other identifiable changes.

C. Provide a narrative report as needed to define:

1. Problem areas, anticipated delays, and the impact on the schedule.
2. Corrective actions recommended and the effects thereof.

1.05 SUBMISSIONS

A. Submit initial schedule within seven (7) calendar days after Award of Contract.

1. Owner will review schedules and return reviewed copy within five (5) days after receipt.
2. If required, resubmit within five (5) days after return of the review copy.

D. Submit revised schedules with each Application for Payment. Failure to submit accurate schedules will be cause for withholding of payment to the Contractor.

E. Submit the number of copies the Contractor requires, plus two copies to be retained by the reviewer and one copy for the Owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

*****END OF SECTION*****

SECTION 01315

AUDIO-VISUAL DOCUMENTATION

PART 1- GENERAL

1.01 SCOPE OF WORK

A. Prior to commencing Work, and at the completion of the work the Contractor shall have a continuous color audio-visual tape recording taken along the entire length of the proposed project to serve as a record of pre-construction conditions.

1.02 CONSTRUCTION SCHEDULE

A. Tape recordings shall not be made more than 30 days prior to construction in any area. No construction shall begin prior to review and approval of the tapes covering the construction area by the Owner. The Owner shall have the authority to reject all or any portion of a videotape not conforming to specifications and order that it be redone at no additional charge. The Contractor shall reschedule unacceptable coverage within five days after being notified. The Owner shall designate those areas, if any, to be omitted from or added to the audiovisual coverage. All tapes and written records shall become property of Owner. The final delivery method of the audiovisual coverage shall be through download via Microsoft OneDrive or equivalent.

1.03 PROFESSIONAL ELECTROGRAPHERS (VIDEOGRAPHERS)

A. The Contractor shall engage the services of a professional electrographer. The color audio-visual tapes shall be prepared by a responsible commercial firm known to be skilled and regularly engaged in the business of pre-construction color audio-video tape documentation. The electrographer shall furnish to the Owner a list of all equipment to be used for the audio-video taping, i.e. manufacturer's name, model number, specifications and other pertinent information. Additional information to be furnished by the electrographer shall include the names and addresses of two references for whom the electrographer has performed color audio-visual taping.

PART 2 - PRODUCTS

2.01 GENERAL

A. The total audio-video system and the procedures employed in its use shall be such as to produce a finished product that will fulfill the technical requirements of the project. The video portion of the recording shall produce bright, sharp, clear pictures with accurate colors and shall be free from distortion, tearing, rolls or any other form of picture imperfection. All video recordings shall, by electronic means, display on the screen the time of day, and the month, day and year of the recording. This time and date information must be continuously and simultaneously generated with the actual recording. The audio portion of the

recording shall produce the commentary of the camera operator with proper clarity and be free from distortion.

B. The recording system shall utilize AIA Standard Video and NTSC compatible color (American TV Standard).

PART 3 - EXECUTION

3.01 COVERAGE

A. The recordings shall contain coverage of all surface features located within the construction's zone of influence. The surface features within the construction's zone of influence shall include, but not be limited to, all roadways, pavement, detention ponds, walls, railroad tracks, curbs, driveways, sidewalks, culverts, headwalls, retaining walls, buildings, landscaping, trees, shrubbery, mail boxes and fences. The existence or non-existence of any faults, fractures or defects shall be of particular concern. Taped coverage shall be limited to one side of the street at any one time and shall include all surface conditions located within the zone of influence supported by appropriate audio description. Panning, zoom-in and zoom-out rates shall be sufficiently controlled to maintain a clear view of the object. A representative of the Owner shall be present during all audio-visual documentation Work. The Contractor shall give the Owner 48 hours notice prior to initiating the audio-visual documentation Work.

3.02 AUDIO CONTENT

A. Accompanying the video recording of each videotape shall be a corresponding and simultaneously recorded audio recording. This audio recording, exclusively containing the commentary of the camera operator, shall assist in viewer orientation and in any needed identification, differentiation, clarification, or objective description of the features being shown in the video portion of the recording. The audio recording shall also be free from any conversations between the camera operator and any other production technicians.

3.03 VIDEO TAPE INDEXING

A. Video Tape Identification: All video tapes shall be permanently labeled and shall be properly identified by video tape number and project title.

B. Video Tape Log: Each video tape shall have a log of that video tape's contents. The log shall describe the various segments of coverage contained on that video tape in terms of the names of the streets or easements, coverage beginning and end, directions of coverage, video unit counter numbers, engineering stationing numbers, addresses and the date.

3.04 TIME OF EXECUTION

A. Visibility: All recording shall be performed during times of good visibility. No

recording shall be done during periods of significant precipitation, mist, or fog. The recording shall only be done when sufficient sunlight is present to properly illuminate the subject and to produce bright, sharp video recordings of those subjects. No taping shall be performed when more than 10% of the area to be taped contains debris or obstructions unless otherwise authorized by the Owner.

3.05 CONTINUITY OF COVERAGE

A. In order to increase the continuity of the coverage, the coverage shall consist of a single continuous unedited recording which begins at one end of a particular construction area. However, where coverage is required in areas not accessible by conventional wheeled vehicles and smooth transport of the recording system is not possible, such coverage shall consist of an organized interrelated sequence of recordings at various positions along that proposed construction area (e.g., wooded easement area). Such coverage shall be obtained by walking or by a special conveyance approved by the Owner

3.06 COVERAGE RATES

A. The average rate of travel during a particular segment of coverage *(e.g.* coverage of one side of a street) shall be directly proportional to the number, size, and value of the surface features within that construction area's zone of influence but not greater than 44 feet per minute.

3.07 CAMERA OPERATION

B. Camera Height and Stability: When conventional wheeled vehicles are used as conveyances for the recording system, the vertical distance between the camera lens and the ground shall not exceed l 0 feet. The camera shall be firmly mounted such that the transport of the camera during the recording process will not cause an unsteady picture.

C. Camera Control: Camera pan, tilt, zoom-in and zoom-out rates shall be sufficiently controlled such that recorded objects will be clearly viewed during video tape playback. In addition, all other camera and recording system controls, such as lens focus and aperture, video level, pedestal, chrome, white balance, and electrical focus shall be properly controlled or adjusted to maximize picture.

D. Viewer Orientation Techniques: The audio and video portions of the recording shall maintain viewer orientation. Views and visual displays of all visible house and business addresses shall be utilized. In easements where the proposed construction location will not be readily apparent to the video tape viewer, highly visible yellow flags shall be placed, by the Contractor, in such fashion as to clearly indicate the proposed center line of construction.

**** END OF SECTION ****

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1- GENERAL

1.01 WORK INCLUDED

A. The Contractor will submit shop drawings, product data and samples as required by the Contract Documents.

B. Related Requirements

1. Section 01310: Construction Schedules

1.02 SCHEDULING

A. Designate in a separate coordinated schedule, the dates for submission of shop drawings, product data and samples and the dates by which reviewed shop drawings, product data and samples will be returned.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SHOP DRAWINGS AND PRODUCT DATA

A. Submit shop drawings and product data in accordance with the requirements of this Section. Shop drawings and product data are required in accordance with the submittal instructions of the material and equipment specifications.

B. Submit shop drawings and product data for additional items of Work necessary for the successful completion of the project.

C. Shop drawings will consist of such detailed plans as may be required for the prosecution of the Work not included in the Drawings. All necessary shop drawings will be furnished by and through the Contractor.

3.02 CONTRACTOR'S RESPONSIBILITIES

A. Approve shop drawings, product data and samples prior to submission.

B. Determine and verify:

1. Field measurements and quantities.
2. Field construction criteria.
3. Materials of construction.
4. Catalog numbers and similar data.
5. Conformance with specifications.

C. Coordinate each submittal with requirements of the Work of other submittals and of the Contract Documents.

D. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.

E. Notify the Owner in writing, at time of submission, of any deviations in the submittals from the requirements of the Contract Documents in order that if the deviations are deemed acceptable, suitable action may be taken for proper adjustment. Otherwise, the Contractor will not be relieved of the responsibility for executing the Work in accordance with the Drawings and Specifications even though such shop drawings have been reviewed by the Owner.

F. Fabrication or Work that requires submittals will not begin until return of submittals after the Owner's review.

G. Keep one set of approved and reviewed shop drawings on the job site at all times.

H. Produce the required shop drawings.

3.03 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule and in such sequence as not to cause delay in the Work or in the Work of any subcontractor. Provide no less than fourteen (14) days for Owner's review.

B. Number of submittals required:

1. Shop drawings and product data: The Contractor will submit copies of shop drawings submittals, and manufacturer's brochures or catalogs to the Engineer via email, for approval by the Engineer and the City.

C. Each submission must be accompanied by a consecutively numbered letter of transmittal in duplicate, identifying each item by reference to Specification Section or Drawing Number, and containing the following:

1. The Project title and number.
2. Contract identification.
3. Submittal number.
4. The date of submission and the dates of any previous submissions.
5. The names of:
   a. Contractor
   b. Supplier
   c. Manufacturer
6. Identification of the product with the Specification Section number.
7. Field dimensions, clearly identified as such.
8. Relation to adjacent or critical features of the Work or materials.
9. Applicable standards, such as ASTM, AWWA, ANSI or Federal Specification numbers.

10. Identification of deviations from Contract Documents.
11. Identification of revisions on resubmittals.
12. Contractor's stamp will be initialed or signed, certifying to approval of the submittal, to the verification of products, field measurements and field construction criteria, and to the coordination of the information within the submittal with the requirements of the Work and of Contract Documents.

D. Catalog plates and other similar materials that cannot be conveniently labeled will be bound in suitable covers bearing the identifying data.

E. Shop drawings will be accompanied by all required certifications and other such supporting materials, and will be submitted in such sequence or in such groups that all related items may be reviewed together. When shop drawings cannot be reviewed because the submission is not complete, or because related shop drawings or items have not been received, such shop drawings will be returned without action or will be held until the lacking materials are received.

F. Other special requirements may be listed in the Specifications and/or given to the Contractor at the preconstruction conference.

3.04 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Owner and Engineer and resubmit for review.

B. Shop drawings and product data:

1. Revise initial drawings or data and resubmit as specified for the initial submittal.

2. Indicate any changes that have been made other than those requested by the Owner.

3. Review of shop drawings or product data by the Owner in excess of twice (two times) for the same article may subject the Contractor to additional costs to cover Owner's additional services. In such cases, Contractor will be billed by Owner for the services and the cost thereof will be deducted from amounts due the Contractor under the Contract.

C. Time lost due to resubmittal of drawings shall not be cause for delay or time lost claims.

3.05 DISTRIBUTION

A. Distribute shop drawings and product data that have been reviewed by the Owner to:

1. Contractor's file
2. Job site file

3. Owner's Inspector
4. Other, as requested by Owner.

3.06 OWNER'S DUTIES

A. Review submittals with reasonable promptness, and in all cases within two weeks of receipt, and in accordance with the shop drawing schedule.

B. Affix stamp and initials or signature, and indicate whether the review is complete or resubmittal is required.

C. Return submittals to the Contractor for distribution or for resubmission on.

3.07 REVIEW OF DRAWINGS

A. Review of shop drawings will be general for conformance with the design concept of the project and compliance with the information given in the Contract Documents and will not include verification of quantities, detailed dimensions, nor adjustments of dimensions to actual field condition s. Review will not be construed as permitting any departure from the Contract requirements, as authorization of any increase in price, nor as relieving the Contractor of the responsibility for any error in detail s, dimensions , or otherwise that may exist.

B. Review by the Owner of the Contractor's shop drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details. The Contractor will be responsible for agreement and conformity of his shop drawings with the Drawings and Specifications.

3.08 CERTIFICATES OF COMPLIANCE

A. A Certificate of Compliance will be furnished for materials specified to a recognized standard or code prior to the use of any materials specified for the Work. The Owner may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The Certificate will be signed by the manufacturer of the material or the manufacturer of assembled materials and state that the materials comply in all respects with the requirements of the Specifications. A Certificate of Compliance will be furnished with each lot of material delivered to the Work and the lot so certified will be clearly identified in the Certificate.

B. All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that a material is used on the basis of a Certificate of Compliance will not relieve the Contractor of any responsibility for incorporating material in the Work that conforms to the requirements of the Contract Documents and any such material not conforming to the requirements will be subject to rejection whether in place or not.

C. The Owner reserves the right to refuse permission for use of material on the basis

of a Certificate of Compliance.

**** END OF SECTION ****

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 CONSTRUCTION UTILITIES

A. The Contractor will arrange with the power company, if necessary, to obtain temporary electrical service for construction purposes.

B. The Contractor will pay all power company installation and use charges for the electrical energy utilized for temporary power and light.

C. The Contractor will make arrangements at the Contractor's expense for obtaining the water supply necessary for construction purposes, and will pay for all water consumed during construction.

1.02 TEMPORARY BUILDINGS

A. The Contractor may build or move onto a central site temporary buildings or other structures for housing personnel, tools or machinery and supplies. All such structures required by the Contractor will be at a location approved by the Owner. The Contractor will maintain the surroundings of all on-site buildings and facilities in a sanitary and satisfactory manner at all times. On or before the completion of the Work, all such structures will be removed, together with all rubbish and trash, at the expense of the Contractor.

1.03 REMOVAL

A. The Contractor will remove temporary facilities from the site of the Work when so notified by the Owner.

1.04 CLEAN-UP

A. Upon completion of the Work, all excess material and rubbish will be removed from the job site, and any off-site locations used, and disposed of in a lawful manner and in accordance with the Contract Documents. The surrounding construction area, easements, and any other effected grounds will be left in a condition as good or better than existed prior to construction. Any remedial actions, measures or reconstruction of damaged properties will be accomplished at the Contractor's expense.

1.05 USE OF PREMISES

A. The Contractor will confine all company apparatus, the storage of materials and the operations of all Workers to the limits defined by laws, ordinances, permits, or

directions of the Owner and will not unduly encumber the premises with any materials.

B. The Contractor will enforce the instructions of the Owner regarding signs, advertisements, fire, and safety.

1.06 SOIL EROSION

A. The Contractor will take all required and necessary actions to prevent siltation and soil erosion during construction.

1.07 ACCESS ROADS

A. Streets, roads, and drives used by the Contractor for access to and from the site of the Work will be protected from damage. Any such damage done will be repaired and left in good condition at the end of the construction period. Upon completion of construction, access areas and temporary easements will be restored to the pre-construction condition at no additional cost to the Owner.

1.08 MAINTENANCE DURING CONSTRUCTION

A. The Contractor will maintain, at his expense, the Work during construction and until final acceptance of all Work under the Contract.

B. In the event the Contractor fails to remedy any unsatisfactory situation within twenty-four (24) hours after receipt of written notice from the Owner describing the unsatisfactory conditions, the Owner may immediately proceed with adequate forces and equipment to maintain the project, and the entire cost of this maintenance will be deducted from the monies otherwise due the Contractor under the Contract.

C. As an alternative to the above specified maintenance, the cost of all of the items that are not properly maintained may be deducted at the Contract Prices from the current partial payment request even if such items have been paid for in previous estimates.

1.09 SANITARY FACILITIES

A. The Contractor will provide and maintain temporary sanitary accommodations for the use by its employees, the Owner, and those of its subcontractors as may be necessary to comply with health requirements and regulations and as directed by the Owner. No nuisance will be permitted from these accommodations.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01568

TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1- GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as necessary.

2. Temporary erosion controls include, but are not limited to, grassing, mulching, netting, watering and reseeding on-site surfaces and soil and borrow area surfaces, and providing interceptor ditches at end of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the regulatory agencies having jurisdiction.

3. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the regulatory agencies having jurisdiction.

4. Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

PART 2 - PRODUCTS

2.01 EROSION CONTROL

A. Seeding, mulching, and sodding is specified in Section 02480.

B. Netting: Fabricated of material acceptable to the Owner.

2.02 SEDIMENTATION CONTROL

A. Bales: Clean, synthetic hay meeting FDOT Spec's.

B. Netting: Fabricated of material acceptable to the Owner and FDOT.

C. Filter Stone: Crushed stone conforming to Florida Department of Transportation specifications.

D. Concrete Block: Hollow, non-load bearing type.

E. Concrete: Exterior grade not less than one inch thick.

PART 3- EXECUTION EROSION

3.01 CONTROL

A. Minimum procedures for grassing are:

1. Scarify slopes to a depth of not less than six inches and remove large clods, rock, stumps, roots larger than 1/2-inch in diameter and debris.
2. Sow seed within twenty-four (24) hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4-inch and 1 1/2-inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.01 SEDIMENTATION CONTROL

A. Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and Working drawings. Hay bales which deteriorate and filter stone which is dislodged will be replaced.

3.02 PERFORMANCE

A. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the regulatory agency having jurisdiction, or the Owner or his representative, the Contractor will immediately take whatever steps are necessary to correct the deficiency at his own expense.

B. Tracking of soils onto pavement shall be minimized. Any silt sediments accumulating in curb line or on paved surfaces shall be promptly removed and cleaned.

C. Contractor shall meet all requirements of the FDEP-NPDES permit relating to erosion control and construction discharges from the site. Contractor shall sign the SWPPP plan and provide all required maintenance on a routine basis.

****END OF SECTION****

SECTION 01570

TRAFFIC REGULATION

PART 1- GENERAL

1.01 DESCRIPTION

A This section covers procedures for developing and implementing traffic control and regulation measures and maintenance of traffic in and around the construction area to provide for safe and efficient protection and movement of vehicular and pedestrian traffic/through and adjacent to the construction area.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this Specification to the extent required by the reference thereto. Latest revisions will apply, unless otherwise shown or specified.

B. Florida Department of Transportation (FDOT) Standards

FDOT Manual	State of Florida Manual of Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.
FDOT Specification	Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2016 Edition.
FDOT Standards	Florida Department of Transportation Roadway and Traffic Design Standards, 2016 Edition.

1.03 SUBMITTALS

A Before closing or restricting traffic flow through any thoroughfare, the Contractor will give written notice to and, if necessary, obtain a permit or permits from the duly constituted public authority having jurisdiction over the thoroughfare. Contractor will also notify the applicable law enforcement, fire, and emergency services having jurisdiction in the area. Notice will be given no less than 72 hours in advance of the time when it may be necessary in the process of construction to close or restrict traffic to such thoroughfare, or as may be otherwise required by the governing authority.

1.04 SITE CONDITIONS

A. The Contractor will plan construction operations such that existing local traffic access can be maintained and will maintain during the construction such barricades, lights, flagmen, and other protective devices as appropriate, whether specified for the project or required by the local governing authority. Traffic control devices used for maintenance of traffic will comply with the FDOT Manual.

B. The Contractor will conduct his Work in such manner as not to unduly or unnecessarily restrict or impede normal traffic through the streets of the community. In so far as it is practicable, excavated material and spoil banks will not be located in such manner as to obstruct traffic. The traveled way of all streets, roads, and alleys will be kept clear and unobstructed insofar as is possible and will not be used for the storage of construction materials, equipment, supplies, or excavated earth, except when and where necessary if approved by the governing authority. If required by duly constituted public authority, the Contractor will, at his own expense, construct bridges or other temporary crossing structures over trenches so as not to unduly restrict traffic. Such structures will be of adequate strength and proper construction and will be maintained by the Contractor in such manner as not to constitute an undue traffic hazard. Private driveways will not be closed except when and where necessary, and then only upon due advance notice to the Owner and for the shortest practicable period of time consistent with efficient and expeditious construction. The Contractor will be liable for any damages to persons or property resulting from his Work.

C. The Contractor will make provisions at cross streets for the free passage of vehicles and foot passengers, either by bridging or otherwise, and will not obstruct the sidewalks, gutters, or streets, nor prevent in any manner the flow of water in the latter, but will use all proper and necessary means to permit the free passage of surface water along the gutters. The Contractor will immediately cart away all offensive matter, exercising such precaution as may be directed by the Owner. All material excavated will be so disposed of as to inconvenience the public and adjacent tenants as little as possible and to prevent injury to trees, sidewalks, fences, and adjacent property of all kinds. The Contractor may be required to erect suitable barriers to prevent such inconvenience or injury.

D. Unless otherwise required by the governing authority, maintenance of traffic in and around the construction zone will conform to Section 102 of the FDOT Specification, and Index Nos. 600, 602, 603, 612, and 613 of the FOOT Standards.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

*****END OF SECTION*****

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. These general requirements for material and equipment apply, in general, to all equipment. They supplement the detailed equipment specifications. In case of conflict, the detailed equipment specifications will govern.

B. Related Requirements: Section 01152 Applications for Progress Payments

1.02 COORDINATION

A. The Contractor will assume full responsibility for the coordination of the installation of all equipment, materials and products furnished under these Contract Documents. The Contractor will be completely responsible for verification that all structures, piping and equipment components furnished by the Contractor and/or the subcontractors and suppliers are compatible. The Contractor will start up equipment and make all necessary adjustments to place the system in proper operating condition.

1.03 EQUIPMENT GUARANTEE

A. The Contractor will guarantee all equipment against faulty or inadequate design, improper assembly or erection, defective Workmanship, defective materials, breakage or other failures. The warranty period will be as discussed in the General Conditions.

1.04 WORKMANSHIP AND MATERIALS

A. All equipment will be designed, fabricated, and assembled in accordance with the best modern engineering and shop practice. Individual parts will be manufactured to standard sizes and gauges so that repair parts, furnished at any time, can be installed in the field. Like parts of duplicate units will be interchangeable.

B. Equipment and materials will be new and will not have been in service anytime prior to delivery, except as required by tests. All bolts, nuts, fastenings, pipes and fittings will be manufactured in conformance with the United States system of measurement.

1.05 TRANSPORTATION, HANDLING AND STORAGE

A. The Contractor will be responsible for the maintenance and protection of all equipment, materials, and products placed in storage and will bear all costs of storage, preparation for transportation, transportation, rehandling, and preparation for installation.

1.06 EXTENDED STORAGE

A. In the event that certain items of equipment have to be stored for an extended period of time, the Contractor will provide satisfactory long-term storage facilities that are acceptable to the Owner. The Contractor will provide all special packaging, protective coverings, protective coatings, power, desiccants, lubricants, and exercising necessary or recommended by the manufacturer to properly maintain and protect the equipment during the period of extended storage.

1.07 PROTECTION

A. All equipment will be boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment will be protected from exposure to the elements and will be kept thoroughly dry at all times. Valves and other equipment having antifriction or sleeve bearings will be stored in weather tight warehouses that are maintained at a temperature of at least 60 degrees Fahrenheit. Other equipment may be stored outside under cover. All equipment will be stored above ground level and adequately supported on wood blocking or other approved support material.

B. Painted, anodized, or otherwise coated surfaces will be protected against impact, abrasion, discoloration, and other damage. All coated surfaces, which are damaged prior to acceptance of equipment, will be cleaned and coated or painted to the satisfaction of the Owner with the same or equivalent coating used in the original application.

C. Individually packaged, unpainted steel parts will be protected by a wrapping of vapor phase inhibiting or oil-impregnated paper and polyethylene film.

D. Parts and equipment not requiring periodic inspection or maintenance will be stored unopened in their original packaging until used.

E. Immediately prior to installation, equipment will be cleaned of any protective coatings used during storage and all rust, dirt, grit, or other foreign materials will be removed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

*****END OF SECTION*****
SECTION 01630

SUBSTITUTIONS AND PRODUCT OPTIONS

PART - GENERAL

1.01 EQUIPMENT QUOTES

A. Equipment quotes will be submitted in accordance with the procedures set forth in the Instruction to Bidders.

1.02 SUBMISSIONS FOR PRODUCT SUBSTITUTIONS

A. General: Product substitutions may be proposed by the Contractor, as indicated by the "or approval equal" phrase appearing throughout these Specifications, provided the substitute product is equal to or better than the name products.

B. The Contractor will furnish sufficient detailed information so that an evaluation can be made of any proposed "equal" product. This information will be submitted with the shop drawings. Submission of inadequate or incomplete information as required to properly evaluate a proposed "equal" product will be sufficient grounds for rejection.

1. Performance capabilities.
2. Materials and construction details.
3. Manufacturer's production and service capabilities.
4. Evidence of proven reliability.
5. Specific references to characteristics either superior or inferior to specified requirements.
6. Detailed estimate of operating and maintenance costs (when appropriate).

1.03 EVALUATION OF PRODUCT SUBSTITUTIONS

A. The information required to be furnished for evaluation of product substitutions will be evaluated as follows:

1. Performance capabilities and materials and construction details will be evaluated based upon conformance with the Specifications. Products that do not conform with the Specifications will not be acceptable.
2. Manufacturer's production and service capabilities and evidence of proven reliability will be acceptable if the following is furnished:

    - Written evidence that the manufacturer has not less than three years experience in the design and manufacture of the substitute product.

    - Written evidence of at least one (l) application, of a type and size similar to the proposed substitute product, in successful operation for a period of at least one year.

B. Specific reference to characteristics either superior or inferior to specified requirements will be evaluated based on their net effect on the project. Products with any characteristics inferior to those specified will not be acceptable unless offset by characteristics that, in the opinion of the Owner, will cause the overall effect of the product on the project to be at least equal to that of those specified.

C. The detailed estimate of operating and maintenance costs will be evaluated based on comparison with similar data on the specified products. Proposed substitute products, which have an operating and maintenance cost that, in the opinion of the Owner, exceeds that of the specified products, will not be considered equal and will not be acceptable.

1.04 REIMBURSEMENT

A. The Contractor will be responsible for all costs associated with product substitutions that require major design changes to related or adjacent Work made necessary by the substitutions. Owner shall be due reimbursement of any and all cost savings realized by the substitution.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

*****END OF SECTION*****

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Comply with requirements stated in Conditions of the Contract and in the Specifications for administrative procedures in closing out the Work.

1.02 RELATED REQUIREMENTS

A. Conditions of the Contract. Fiscal provisions, legal submittals and additional administrative requirements.

B. Section 01720: Project Record Documents.

C. The respective sections of Specifications: Submittals Required.

1.03 SUBSTANTIAL COMPLETION

A. When the Contractor considers the Work is substantially complete (i.e. fully constructed and ready for final inspection in accordance with City specifications), he will submit to the Owner:

1. A written notice that the Work is substantially complete, requesting scheduling of the final inspection.
2. A list of items to be completed or corrected (if any).

B. Within a reasonable time after receipt of such notice, the Owner will make an inspection to determine the status of completion.

C. Should the Owner determine the Work is not substantially complete:

1. The Owner will promptly notify the Contractor in writing, giving reasons therefor.
2. The Contractor will remedy the deficiencies in the Work and send a second written notice of substantial completion to the Owner.
3. The Owner will reinspect the Work.

D. When the Owner finds that Work is substantially complete, he will:

1. Prepare a tentative Certificate of Substantial Completion with a tentative list of items to be complete or corrected before final payment.

2. After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Owner considers the Work substantially complete, he will execute and deliver the Contractor a Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.04 FINAL INSPECTION

A. When the Contractor considers the Work is complete, he will submit written certification that:

1. Contract Documents have been reviewed.
2. Work has been inspected for compliance with Contract Documents.
3. Work has been completed in accordance with Contract Documents.
4. The Work has been tested as required by the Specifications and in the presence of the Owner's representative and is operational.
5. Work is completed and ready for final inspection.

B. The Contractor shall provide the Owner with a set of Contractor as-builts for final inspection.

C. The Owner will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

D. Should the Owner consider that the Work is incomplete or defective:

1. The Owner will promptly notify the Contractor in writing, 1isting the incomplete or defective Work.
2. The Contractor will take immediate steps to remedy the stated deficiencies.
3. and send a second written certification to the Owner that the Work is completed.
4. The Owner will reinspect the Work.

E. When the Owner finds that the Work is acceptable under the Contract Documents, he will request the Contractor to make closeout submittals.

1.05 REINSPECTION FEES

A. Should the Owner perform more than one reinspection due to failure of the Work to comply with the claims of status of completion made by the Contractor:

1. The Owner will be compensated for such additional service.
2. The Owner will deduct the amount of such compensation from the final payment due to the Contractor.

1.06 CONTRACTOR'S CLOSEOUT SUBMITTALS TO OWNER

A. Evidence of compliance with requirements of governing authorities.

B. As-built drawings.

C. Evidence of Payment and Release of Liens in accordance with requirements of General and Supplementary Conditions.

1.07 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit final statement of accounting to the Owner.

B. Statement will reflect all adjustments to the Contract Sum:
   1. The original Contract Sum
   2. Additions and deductions resulting from:
      a. Previous Change Orders
      b. Allowances
      c. Unit Prices
      d. Deductions for uncorrected Work
      e. Deductions for liquidated damages
      f. Deductions for reinspection payments
      g. Other adjustments
   3. Total Contract Sum, as adjusted
   2. Previous payments
   3. Sum remaining and due to Contractor

C. Owner will prepare a final Change Order reflecting approved adjustments to the Contract Sum that were not previously made by Change Orders.

1.08 FINAL APPLICATION FOR PAYMENT

A. Contractor will submit the final Application for Payment in accordance with procedures and requirements stated in Section 01152 and in the Conditions of the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor will maintain at the site for the Owner one record copy of:

1. Drawings
2. Specifications
3. Addenda
4. Change Orders and other modifications to the Contract
5. Engineer field orders or written instructions
6. Approved shop drawings, product data and samples
7. Field test records
8. As-Built Drawings

B. Related Requirements:

1. Section 01200: Project Meetings
2 Section 01340: Shop Drawings, Product Data and Samples
3 Section 01500: Construction Facilities and Temporary Controls
4 Section 01700: Contract Closeout

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. The Contractor will store record documents, As-Builts, and samples apart from documents used for construction.

1. Provide files and racks for storage of documents.
2. Provide locked cabinet or secure storage space for storage of samples.

B. Documents will be maintained in a clean, dry, legible condition and in good order. Do not use As-Built Documents for construction purposes.

C. Documents and samples will be available at all times for inspection by the Owner.

1.03 MARKING DEVICES

A. The Contractor will provide suitable permanent marking pens for recording information in the color code designated by the Owner.

1.04 RECORDING

A. Each document will be labeled "AS BUILT" in large printed letters, and will include the Contractor's name and the name of the person responsible for the As-Built Drawings.

B. As-Built information will be kept current with construction progress.

C. As-Built Drawings:

1. The Contractor will keep an accurate record of the location, size, and material for all piping, casings and changes in equipment dimensions and any other variations between the Work actually provided and that shown on the Contract Drawings. The representation of such variations will conform to standard drafting practice and will include such supplementary legibility and clear portrayal of the construction.
2. Final alignment, invert elevations and locations are to be supplied by the Contractor. Final location of buried valves will be identified by reference to at least three permanent above-grade structures.
3. Do not conceal any Work until required information is recorded.
4. Location of all manholes, hydrants, valves and valve boxes shall be shown. All valves shall be referenced from three (3) permanent points.

D. GPS points on fittings, valves, and joints are to be collected using Trimble XH or XT units

1.05 SUBMITTAL

A. Sketches showing the As-Built information will be made available to the Owner for review monthly with the Application for Progress Payment. As-Built Drawings will be reviewed with the Owner monthly as part of the Application for Progress Payment review process.

B. As-Builts are to be submitted through download via Microsoft OneDrive or equivalent in a compatible Geographical Information Systems (GIS) format, along with a minimum of three (3) printed and certified copies.

C. Upon completion, the Contractor will have As-Built Drawings and Records certified as to their completeness and correctness by a Florida State Registered/Professional Land Surveyor in accordance with chapters of the Florida Statutes and Florida Administrative Code applicable to land surveying for incorporation in the Record Drawings. The final as-built record drawings will include two (2) ties to above ground structures for each watermain appurtenance, and Station/Range info at 100 foot intervals (maximum).

D. At Contract close-out, deliver electronic version and three (3) complete sets of printed As-Built Drawings and records to the Owner. The submittal must include a signed/dated black line copy.

E. Accompany submittal with transmittal letter in duplicate, containing:

1. Date
2. Project title and number
3. Contractor's name and address
4. Title and number of each As-Built Document
5. Certification that each document as submitted is complete and accurate
6. Signature of the Contractor or his authorized representative

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

DIVISION 2 – SITEWORK

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SECTION 02220

EXCAVATING, BACKFILLING, AND COMPACTING FOR UTILITIES

PART 1- GENERAL

1.01 SUMMARY

A. This Section covers the stripping of topsoil and vegetation, excavating, trenching, bedding, filling, backfilling, compacting, and related work in connection with installing water mains, casings, service connections, hydrants, valves, fittings, and other applicable appurtenances.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this specification to the extent required by the reference thereto. Latest revisions will apply, unless otherwise shown or specified.

B. American Association of State Highway and Transportation Officials (AASHTO) Standards

AASHTO Tl80 Moisture-Density Relations of Soils Using a 10-lb. [4.54kg] Rammer and an 18-inch [457mm] Drop (Re: ASTM D-1557).

C. American National Standards Institute (ANSI) and American Water Works Association (AWW A) Standards

ANSI/AWWA C600 AWWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances

ANSI/AWWA C605 AWWA Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water

D. American Society for Testing and Materials (ASTM) Standards

ASTMD2487 Classification of Soils for Engineering Purposes

ASTMD1557 Moisture-Density Relations of Soils Using a 10-lb. [4.54 kg] Rammer and an 18-inch [457 mm] Drop

E. Florida Department of Transportation (FDOT) Standards

FDOT Specification	Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition

1.03 DEFINITIONS

A. Excavation

1. Removal of earth and rock to form cavities for construction of foundations and structures and to form trenches for installation piping.
2. Cavity formed by removal of earth and rock.

B. Earth

Unconsolidated material in the crust of the Earth derived by weathering and erosion. Earth includes:

1. Materials of both inorganic and organic origin;
2. Boulders less than 1/3 cubic yard in volume, gravel, sand, silt, and clay;
3. Materials which can be excavated with a backhoe, trenching machine, dragline, clam shell, bulldozer, highlift, or similar excavating equipment without the use of explosives, rock ripper, rock hammers, or jack hammers.

C. Rock

A natural aggregate of mineral particles connected by strong and permanent cohesive forces. Rock includes:

1. Limestone, sandstone, dolomite, granite, marble, and lava;
2. Boulders 1/3 cubic yard or more in volume;
3. Materials which cannot be excavated with equipment which is used to remove earth overburden without the use of explosives, rock rippers, rock hammers, or jack hammers;
4. Materials which cannot be excavated with a backhoe, trenching machine, dragline, clam shell, bulldozer, highlift, or similar excavating equipment without the use of explosives, rock rippers, rock hammers, or jack hammers.

D. Undercutting

Excavation of rock and unsuitable earth below the bottom of the foundation, structure, pipe, or conduit to be constructed or installed.

E. Subgrade

Undisturbed bottom of excavation.

F. Bedding

Suitable natural or fill soils compacted at the bottom of the trench to support pipe and conduit.

G. Backfill and Fill

1. Earth placed around structures or pipe from bottom of excavation to finished grade, or to subbase of pavement.
2. Earth placed in trench from the top of initial backfill to finished grade, or to subbase of pavement.

H. Topsoil

Earth containing sufficient organic materials to support the growth of grass.

I. Haunching

Earth placed in trench from top of bedding to spring line of pipe or conduit to support pipe or conduit.

J. Initial Backfill (or Cover Material)

Earth placed in trench from top of haunching to 12 inches above top of pipe conduit.

1.04 SUBMITTALS

A. Submittals will be as specified in the General Conditions and in Division 1- General Requirements.

B. Samples: Before using granular materials for trench backfill or bedding, submit samples from each typical source to a soils testing laboratory

approved by the Owner.

C. Reports: Submit soils testing laboratory reports to Owner for checking as follows:

1. Two copies of the gradation analysis of material from each source used for trench backfill, bedding and subbase.
2. Two copies of the gradation analysis and compaction requirements for each typical class of backfill.
3. Reports from soils testing laboratory should state any special manipulation or compaction requirements required to achieve specified density or supportive value for each class of backfill.

1.05 JOB CONDITIONS

A. Maintenance of Traffic

Notify Traffic Engineer of local jurisdictions, Police and Fire Departments two (2) working days prior to excavation in streets.

B. General Requirements

1. Contractor will by the end of each work day, backfill all trenches, holes, or other excavations to provide a compacted surface capable of supporting vehicular loads, level with the existing ground surface at no additional cost to the Owner.
2. Where the above requirement cannot be met, the Contractor will provide such measures as required to secure the excavation and prevent access to it by the public. Such measures will include but not be limited to covers, fencing, barricades and security lighting.
3. No more than two blocks at a time shall be under construction without right-of-way restoration including sodding, driveway repair and pavement repair.

1.06 GUARANTEE

A. OWNER requires guarantee against trench settlement to be furnished by CONTRACTOR:

1. By acceptance of payment for the Work of this Section, CONTRACTOR guarantees for one year after Final Completion as follows:
   a. For trenches in unpaved areas surface settlement will not exceed one inch.
   b. For trenches in paved areas, surface settlement will not occur.

c. For all trenches, pipe zone bedding will not settle or be displaced causing damage or misalignment of utility.
d. In case trench settlement occurs in excess of the above limits, CONTRACTOR will repair all surfaces and utilities at no additional cost to Owner.

1.07 QUALITY ASSURANCE

A. The Contractor will employ and pay for the services of an independent testing laboratory to perform specified services and necessary field density tests to ensure that appropriate materials are supplied and proper compaction is obtained. Density tests will be conducted at intervals that will provide the equivalent of at least one test for every 150 linear feet of trench backfill. Provide all necessary labor and equipment to complete the required tests and make any repairs necessary following the tests. In the event the results of any test are unsatisfactory, the Owner will conduct additional tests to determine the extent of the unsatisfactory area(s) and retests to confirm satisfactory correction by the Contractor. Costs of such additional tests and retests will be paid by the Contractor.

B. Regulatory Requirements

1. The Contractor shall be solely responsible for all obligations prescribed as employer obligations wider Chapter XVII of Title 29, Code of Federal Regulations, Part 1926, otherwise known as "Safety and Health Regulations for Construction." The Contractor will comply with OSHA's Excavation Safety Standards 29, CFR Part 1926.650-652, Subpart P, as well as Florida's Trench Safety Act (90-96). It is the Contractor's responsibility to notify and coordinate with the Owner's independent testing laboratory for scheduling of all tests.
2. sufficient warning lights on or near the work and keep them illuminated during periods of reduced visibility (from twilight in the evening until sunrise) and be responsible for any damages that any party or the Owner may sustain in consequences of neglecting the necessary precaution in prosecuting this work.

1.08 SITE CONDITIONS

A. Existing storm sewers, sanitary sewers, water mains, gas mains, electric ducts, telephone ducts, and other underground structures, lines, and their house connections have been shown on the Drawings according to the best available information. The exact location and protection of these facilities and structures and their support and maintenance in operation during construction (in cooperation with the proper authorities), is the responsibility of the Contractor.

1.09 SPECIAL INSTRUCTIONS

A. OSHA'S Excavation Safety Standards 29, CFR Part 1926.650-652 Subpart P, as well as Florida's Trench Safety Act (90-96) will be considered as complimentary to these specifications. Should there be any duplication, redundancy, or conflict between the stipulations of these specifications and the above governmental standards, the most stringent requirement will govern. Any question as to such stringency for any specific duplication, redundancy or conflict which cannot be determined by the Contractor, will be submitted in writing to the Owner for his determination as to which stipulation will govern.

B. All trenches will be backfilled within 5 days maximum and prior to any weekends or holidays.

PART 2- PRODUCTS

2.01 BEDDING, HAUNCHING, INITIAL BACKFILL AND BACKFILL

A. Suitable Materials

The following soils classified in accordance with ASTM 02487 are acceptable:

Class II

GW - Well-graded gravels and gravel-sand mixtures, little or no fines. 50% or more retained on the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

GP - Poorly graded gravels and gravel-sand mixtures, little or no fines. 50% or more retained on the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

SW - Well-graded sands and gravelly sands, little or no fines. More than 50% passes the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

SP - Poorly graded sands and gravelly sands, little or no fines. More than 50% passes the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

Class IIA

SP/SM - Mixture of sand and silt with between 5% and 12 % passing the U.S. No. 200 sieve.

SP/SC - Mixture of sand and clay with between 5% and 12 % passing the U.S. No. 200 sieve.

GP/GM- Mixture of gravel and silt with between 5% and 12 % passing the U.S. No. 200 sieve.

GP/GC - Mixture of gravel and clay with between 5% and 12 % passing the U.S. No. 200 sieve.

Class III

GM - Silty gravels, gravel-sand-silt mixtures. 50% or more retained on the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

GC - Clayey gravels, gravel-sand-clay mixtures. 50% or more retained on the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

SM - Silty sands, sand-silt mixtures. More than 50% passes the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

SC - Clayey sands, sand-clay mixtures. More than 50% passes the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

C. Unsuitable Materials

Stones greater than 8 inches in their largest dimension, pavement, rubbish, debris, wood, metal, plastic, and the following soils classified in accordance with ASTM D2487 are unsuitable:

Class IV

ML - Inorganic silts, very fine sands, rock flour, silty or clayey fine sands. Liquid limit 50% or less. 50% or more passes the U.S. No. 200 sieve.

CL - Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, Jean clays. Liquid limit 50% or less. 50% or more passes the U.S. No. 200 sieve.

MH - Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts. Liquid limit greater than 50%. 50% or more passes the U.S. No. 200 sieve.

CH - Inorganic clays of high plasticity, fat clays. Liquid limit greater than 50%. 50% or more passes the U.S. No. 200 sieve.

Class V

OL - Organic silts and organic silty clays of low plasticity. Liquid limit 50% or less. 50% or more passes the U.S. No. 200 sieve.

OH - Organic clays of medium to high plasticity. Liquid limit greater than 50%. 50% or more passes the U.S. No. 200 sieve.

PT - Peat, muck and other highly organic soils.

D. Concrete Backfill

Class B concrete as specified in Section 03300, Cast-in-Place Concrete.

E. Cellular Concrete

Light weight cellular concrete may be used as a grouting mixture for filling voids, and as a substitute for backfill concrete in casing pipes. Blend preformed foam with cement-sand grout slurry to produce a concrete having a fresh weight per cubic foot of not less than 75 pounds.

PART 3 - EXECUTION

3.01 INSPECTION

A. Prior to all work, carefully inspect the site and verify that construction may properly commence:

1. Before excavation:
   a. Verify layout, horizontal and vertical, and conformance of layout with Contract Drawings.
   b. Verify Limits of Construction.
   c. Check surface drainage ditch and driveway culverts. Record alignments, both vertical and horizontal. Also, inspect culvert pipes and immediately report to the Owner any condition that would prevent removal and

reinstallation.

d. Verify utility locations, including, but not limited to, aerial, polelines, buried, underground, transmission, local service, and individual connection.

e. Record location, size and description of property to be removed and replaced including, but not limited to, curbs, driveways, pavements, plantings and lawn furnishings.

f. Accurately survey and record the location of property pins, bench marks, USGS Monuments, right-of-way markers, within the Limits of Construction that may be moved by the Contractor's operations. Use licensed land surveyor only.

2. After execution, verify that utilities to be laced in trenches may be installed in accordance with pertinent drawings and specifications.

3. Before backfilling, verify that:

a. Utilities have been installed in accordance with pertinent drawings and specifications.

b. Other utilities are adequately continued, supported and maintained without damage.

B. In the event of discrepancy or unsatisfactory conditions, immediately notify the Owner.

3.02 PREPARATION

A. Notification – Before commencing excavation in any part of the job, notify the following:

1. The Owner
2. Adjacent and affected property occupants.
3. The Fire Department
4. The Police Department – TRAFFIC DIVISION
5. All public and private utilities whose facilities are in the vicinity of the excavation, including gas and oil pipeline companies, in accordance with FL-77-153.

3.03 EXISTING UTILITIES, STRUCTURES AND PROPERTY

A. Except where noted to be placed out of service, relocated, or removed and replaced, support and protect from damage all poles, fences, sewer, gas, water, or other pipes, wires, conduits, and manholes, railroad tracks, buildings, structures, and property.

B. Movable items such as mailboxes may be temporarily relocated during construction. Place movable items in their original location immediately after backfilling is completed, unless otherwise shown on the Drawings. Replace movable items which are damaged during construction.

C. Proceed with caution in the excavation and preparation of trenches so that the exact location of underground utilities and structures, both known and unknown, may be determined. Be responsible for the repair of utilities and structures when broken or otherwise damaged.

D. Whenever, in the opinion of the Owner, it is necessary to explore and excavate to determine the location of underground structures, make explorations and excavations for such purpose.

E. Wherever sewer, gas, water, or other pipes or conduits cross the trench, support pipes and conduits without damage and without interrupting work of this Contract. The manner of supporting such pipes, etc., will be subject to the approval of the utility involved.

F. When utility lines that have to be removed or relocated are encountered within the areas of operations, notify the Owner in ample time for the necessary measures to be taken to prevent interruption of the service.

G. Conduct work so that no equipment, material, or debris will be placed or allowed to fall upon private property in the vicinity of the work unless property owner's written consent thereto is obtained and a copy submitted to the Owner.

H. Pile all excavated material to avoid obstructing walkways and driveways. Leave hydrants under pressure. Leave valve pit covers, valve boxes, curb stop boxes, fire and police call boxes, or other utility controls unobstructed and accessible until the work is completed. Keep drainage ways clear or make other satisfactory provisions for street drainage. Do not obstruct natural watercourses.

I. Clean all streets, alleys, pavements, parkways, and private property of all surplus materials, earth, and rubbish placed thereon by the Contractor.

J. Remove existing thrust blocks that are uncovered during construction and, if necessary, post restrain the existing pipe for the entire length as shown in the construction plan details.

3.04 CLEARING AND GRUBBING

A. Remove and dispose of trees, snags, stumps, shrubs, brush limbs, trash pipes, rubbish and other material that will impede construction operations. Clear and remove said obstructions along the water main's route as needed to provide adequate space for the Contractor's installation work, including space for control stakes and hubs. Minimize tree removal.

B. Removal of Trees and Other Plants

1. All trees with trunks 3 inches or larger in diameter will be preserved and protected from damage, unless removal is authorized in writing by the City of Cocoa.
2. All trees, shrubs, plants, and other vegetation beyond the right-of-way or Easement limits will be protected from damage. The Contractor will be liable for the repair or replacement of any damaged trees or other vegetation.
3. No filling, excavation, trenching, stockpiling of materials, or storing of equipment will be permitted within 5 feet of small shrubs or plants that are to be preserved or within that portion of the dripline of trees or large shrubs that is 20 feet or more away from the pipe centerline. The dripline is defined as a circle drawn by extending a line vertically to the ground from the outermost branches of a tree, shrub or group thereof.
4. If branches of trees (which are to be preserved) extend into the working area, they may be cut and trimmed in a manner that will result in a balanced appearance of the tree. Scars resulting from the removal of branches will be treated with a tree sealant.
5. In the case where trees are outside the easement and right-of-way, but the dripline and probable root zone is within the construction area, excavation methods will be utilized that will minimize any damage to the trees. Included in such methods is the *use* of a shield or shoring to minimize lateral excavation.
6. The Contractor will obtain specific direction from the City of Cocoa prior to removal of any trees or plants within easements crossing private property.
7. When trees and other plants are removed, or where obstructions protrude through the surface of the existing ground, all such material will be removed to a minimum depth of one (1) foot below existing grade.

C. Removal and Reuse of Sod

D. To the extent possible, sod will be cleanly cut, removed, maintained and reused as described in Section 02482, Landscaping for Utilities.

E. Top Soil Stripping

Within the limits of excavation for the utility trenches, strip the upper 6 to 12 inches of soil and mulch this soil with the small vegetation and other organic material removed therewith. This mulched soil will be maintained separate from the general from the general trench excavation material and reused for restoration purposes.

3.05 PAVEMENT AND WALK REMOVAL

A. Remove existing pavement and walks from areas to be excavated. Remove excavated asphaltic and concrete materials from the job site as these materials are excavated.

B. Unless limits are specified on the Drawings, limit the width of pavement removed along the normal trench for the installation of pipe and structures to the width of the trench plus not more than 12 inches on each side of the trench when the amount of pavement removed is less than 75 percent of the total existing pavement width. Remove all existing pavement when the excavation requires the removal of 75 percent or more of the total existing pavement width.

C. Remove walks completely when excavation is along the length of a walk and requires removal of part of the walk. Remove walks to existing joints in the walks when excavation crosses walkways. If there are no joints in an existing walk, limit the width of walk removed to the width of the trench plus not more than 12 inches on each side of the trench. Sidewalk cuts shall be made perpendicular to the sidewalk.

D. Remove pavement and walks by methods that will assure breaking or cutting of pavement and walks along straight lines. Leave faces of remaining pavement and walk surfaces approximately vertical.

3.06 DEWATERING

A. Keep excavations free from water until the water mains, force mains, sewers, structures, and appurtenances to be adjusted, lowered or constructed in the excavations are completed and will safely withstand forces from water. Provide sufficient dewatering equipment and make satisfactory arrangements for the disposal of the water without undue interference with other work, damage to property, or damage to the environment, or violation of any local, state or federal regulations. Any penalties resulting from a violation, including, but limited to, clean-up, consent orders, etc., will be at the Contractor's expense.

B. Operate dewatering equipment ahead of pipe adjustments or installations and keep the water level a minimum of 2-feet below the pipe invert until the pipe is secured by backfill and ends are plugged with water tight plugs. Cost for all dewatering activities shall be made at the Contractor's expense.

C. Any required Dewatering Permits to be obtained by Contractor.

3.07 EXCAVATING

A. Reference the requirements stipulated by OSHA's Excavation Safety

Standards 29, CFR Part 1926.650-652, Subpart P, and Florida's Trench Safety Act (90-96).

B. After stripping of topsoil and vegetation, perform excavations of every description regardless of material encountered within the grading limits of the project to lines and grades as indicated on the Drawings or as otherwise specified.

C. Replace materials removed below the depths indicated without specific direction of the Owner to the indicated excavation grade with satisfactory bedding materials placed and compacted at no additional cost to the Owner.

D. Before excavating is begun, remove or make safe trees, boulders, and other surface encumbrances, located so as not to create a hazard to employees involved in excavation work or in the vicinity thereof at any time during operations.

E. Do not open more than 100 feet of trench in advance of the installed pipe, unless otherwise directed or permitted by the Owner. Excavate the trench within 6 inches of full depth for a distance of at least 30 feet in advance of the pipe laying, unless otherwise directed or permitted.

F. Determine the angle of repose of the soil in which the trenching is to be done. Excavate all slopes to at least the angle of repose except for areas where shoring or trench box is to be used.

G. Support sides, slopes, and faces of all excavations by scaling, benching, barricading, or other equally effective means. Give special attention to slopes which may be adversely affected by weather or moisture content.

H. Flatten the trench sides when an excavation has water conditions, silty materials, loose boulders, or areas where erosion, or slide planes appear.

I. Use shoring, sheeting, trench box, or other means to support sides of trenches in hard or compact soil when the trench is more than 5 feet in depth and 8 feet or more in length. Sides of trenches will include embankments adjacent to trenches. In lieu of shoring, the sides of the trench above the 5 foot level may be sloped to preclude collapse, when sloping will not compromise the integrity of adjacent pavement or structures.

J. Use diversion ditches, dikes, or other suitable means to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Do not allow water to accumulate in an excavation. If possible, the grade should be away from the excavation.

K. Have excavations inspected by a competent Contractors representative after every rainstorm or other hazard increasing occurrence, and increase the protection against slides and cave-ins if necessary.

L. Do not store excavated or other material within 4 feet of edge of any excavation. Store and retain materials to prevent them from falling or sliding back into excavations. Install substantial stop logs or barricades when mobile equipment is utilized or allowed adjacent to excavations.

M. Excavate trenches to provide 12" minimum clearances on each side of the pipe to allow adequate working room for pipe installation and for compaction under pipe haunches.

N. Limit clear width of excavations for manholes and other structures to the greatest external width of the structure plus the space necessary for the construction and removal of the forms and construction of concrete or masonry work.

O. Test the air in excavations in locations where oxygen deficiency or gaseous conditions are possible. Establish controls to assure acceptable atmospheric conditions. Provide adequate ventilation and eliminate source of ignition when flammable gases are present. Provide readily available attended emergency rescue equipment, such as breathing apparatus, a safety harness and line, and basket stretcher, where adverse atmospheric conditions may exist or develop in an excavation.

P. Provide walkways or bridges with guardrails where employees or equipment are required or permitted to cross over excavations.

Q. Provide ladders where employees are required to be in trenches 4 feet or more in depth. Extend ladders from the floor of the trench to at least 3 feet above the top of the excavation. Locate ladders to provide a means of exit without more than 25 feet of lateral travel.

R. Provide adequate barriers and physically protect all remotely located excavations. Barricade or cover all wells, pits, shafts, and similar excavations. Backfill temporary wells, pits, shafts, and similar excavations upon completion of exploration and similar operations.

S. Carry on the work with utmost vigor and proceed with the work expeditiously when running sand, quicksand, or other bad or treacherous ground is encountered. Install bedding or other means to support the pipe as directed by the Owner.

3.08 SHEETING/SHEET PILING

A. Reference the requirements stipulated by OSHA's Excavation Safety Standards 29, CFR Part 1926.650-652, Subpart P, and Florida's Trench Safety Act (90-96).

B. Have supporting systems, such as piling, cribbing, shoring, and bracing, designed by qualified Contractor's representative to meet accepted engineering standards. When tie rods are used to restrain top of sheeting or other retaining systems, securely anchor tie rods well back of angle of repose. When tight sheeting or sheet piling is used, assume full loading due to groundwater table in its design, unless prevented by weep holes, drains or other means. Provide additional stringers, ties, and bracing to allow for any necessary temporary removal of individual supports.

C. Use materials for sheeting, sheet piling, cribbing, bracing, shoring, and underpinning which are in good, serviceable condition. Use timbers which are sound, free from large or loose knots, and of proper dimensions.

D. Take special precautions in sloping or shoring sides of excavations adjacent to a previously backfilled excavation or a fill, particularly when separation is less than depth of excavation. Pay particular attention to joints and seams of material comprising a face and to slope of such seams and joints.

E. If it is necessary to place or operate power shovels, derricks, trucks, materials, or other heavy objects on a level above or near excavation, sheet-pile, shore, and brace side of excavation as necessary to resist extra pressure due to such superimposed loads.

F. If stability of adjoining buildings, walls, or utility lines is endangered by excavations, provide shoring, bracing, or underpinning as necessary to ensure safety of adjoining buildings, walls, or utility lines. Have shoring, bracing or underpinning inspected daily or more often, as conditions warrant, by competent Contractor's representative and effectively maintain protection.

G. Be responsible for sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from improper quality, strength, placing, maintaining, or removing of same, including damage to trees, sidewalks, and other property on site, as well as on private grounds.

H. Drive sheeting ahead of excavation. Do not remove sheeting until backfill of excavation has reached within 2 feet of top of excavation, except that lower course of sheeting may be removed from a double sheeted excavation. Cut off and leave in place all sheeting driven below the top of pipe. When sheeting is drawn, completely fill all cavities remaining in or adjoining excavation. When sheeting is left in place, completely fill all cavities behind such sheeting. Cut off all sheeting left in place a minimum of 2 feet below finish grade.

3.09 STORAGE, REMOVAL AND DISPOSAL OF EXCAVATED MATERIAL

A. Suitable excavated material required for filling and backfilling operations may be stockpiled in on-site locations as approved by the Owner, until the material is ready to be placed.

B. Remove unsuitable materials from the job site as unsuitable materials are excavated. Remove surplus suitable materials from the job site as trenches are backfilled.

C. Dispose of unsuitable and surplus materials off site.

3.10 TEMPORARY PLUGS

A. Prevent foreign matter from entering pipe while it is being installed. Do not place debris, tools, clothing, or other material in the pipe. Close the open ends of pipe by watertight plugs when pipe laying is not in progress. Remove any earth or other material that enters pipe or appurtenances through any open pipe end. Remove earth and other materials at no additional cost to the Owner.

3.11 PIPE BEDDING, HAUNCHING AND BACKFILLING

A. Do not backfill trenches and excavations until all utilities have been inspected by the Owner's Representative and until all underground utilities and piping systems are installed in accordance with the requirements of the Specifications and the Drawings. Do not apply required hydrostatic tests of pressure lines to lines utilizing restrained joints rather than thrust blocking until after the trench is backfilled.

B. Material requirements for pipe bedding, haunching, initial backfilling and backfilling are given under Part 2 - Products of this Specifications Section.

C. Lay each pipe section in a firm foundation of bedding material and haunch and backfill with care. Use material from the excavation for bedding, haunching, initial backfilling, and backfilling when it meets the following requirements; when excavated material does not meet these specifications, it will be replaced with material from off-site borrow which does:

1. Use Class II or Class IIA materials for bedding, haunching and initial backfill up to minimum 12" above crown of pipe.
2. Use Class II, Class IIA, or Class III materials for backfill above the initial backfill.
3. Additional requirements are as shown on the Drawing.

Excavate bell holes at each joint to permit proper assembly and inspection of each joint.

D. Compact pipe bedding, haunching, initial backfilling, and backfilling material to a minimum of 95 percent of maximum density as determined by AASHTO T-180 in unpaved areas and minimum of 98 percent of maximum density as determined by AASHTO T-180 in paved areas and within two feet of paved areas.

E. Prior to pipe installation, carefully bring compacted bedding material to grade along the entire length of pipe to be installed. Place compacted bedding material to a minimum thickness of 6 inches beneath the pipe. Excavate bell holes in advance of pipe laying so the entire barrel will bear uniformly. Use hand or mechanical tamping to compact bedding material to the required minimum 95 percent of maximum density (ASTM D1557). Contractor to use the services of an independent laboratory to perform all density testing. Contractor to pay for all density testing.

F. Place and compact haunching material of the same type as the bedding material to the spring line of the pipe exercising care to not displace the pipe from the required line and grade. Place and compact haunching material in lifts not exceeding 6" loose depth. Place and compact initial backfill from top of haunching to 12" over the top of the pipe in lifts not exceeding 6" loose depth. Place and compact backfill above initial backfill in lifts not exceeding 12" loose depth. Do not use mechanical or impact tampers directly over the pipe until at least 12" depth of backfill over the top of the pipe has been placed.

G. In yielding subsoils, undercut the trench bottom to the depth necessary and backfill with graded, crushed stone to form a firm foundation. No additional payment will be made for stabilizing yielding subsoils.

H. The moisture content of the bedding, haunching, initial backfill and backfill will be within 2% of the optimum moisture content. If water is added to improve compaction, or if water exists in the trench, take care to avoid saturation of Class II, Class IIA or Class III material. This condition could result in loss of stability.

I. Place and tamp bedding, haunching, initial backfill, and backfill in a manner which will not damage pipe, coating, wrapping, or encasement.

J. Do not use the following materials for bedding, haunching, initial backfill, and backfilling:

1. Unsuitable materials, as specified under Article 2.0 I.
2. Materials which are too wet or too dry to be compacted to the

densities specified in this Article (3.11).

3.12 CLEANUP AND MAINTENANCE

A. Cleanup the job site as backfilling is completed. Remove excess earth, rock, bedding materials, and backfill materials. Remove unused piping materials, structure components, and appurtenances. Restore items moved, damaged, or destroyed during construction. Grade area to be restored. Leave backfill mounded over trenches which are not to be restored by paving or sidewalks. Do not permit cleanup and restoration specified in this paragraph to lag behind excavation by more than 100 feet.

B. Maintain the job site until the work has been completed and accepted. Fill trenches which settle when settlement is visible. Restore items damaged by construction or improper restoration. Keep dust conditions to a minimum by the use of approved dust palliatives.

****END OF SECTION****

SECTION 02405

HORIZONTAL DIRECTIONAL DRILLING

PART 1- GENERAL

1.01 SUMMARY

A. Section includes furnishing and installing underground utilities using the Horizontal Directional Drilling (HDD) method. This work shall include all services, equipment, materials, and labor for the complete and proper installation, testing, restoration of underground utilities and environmental protection and restoration.

HORIZONTAL DIRECTIONAL DRILLING

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards and shall utilize high density polyethylene (HDPE, DR 11)

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:
• The directional bore contractor (preferably the Field Superintendent)
• The permitting agency
• EOR
• City Engineering Division Representative
• Inspector for the project

ENGINEER OF RECORD

1. The EOR must include a scaled drawing showing the details of the directional drill on the construction drawings (i.e., profile, depth, location of existing utilities, maximum deflection angle).

2. If during construction it is determined a directional drill is required (and was not previously approved), the EOR is required to update the construction drawings and receive approval.

HDD CONTRACTOR
1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in “Appendix B”) to Utilities Development

allowing for a 5-business day review period. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan")

• The entrance and exit location
• Profile of the bored pipe
• Proposed deflection angle for approach and exit
• Documentation on the allowable maximum and minimum deflection for the particular pipe being used
• All utilities including their depths and clearances from reamer
• Width of the right of way
• Pavement width
• Length of the bore
• The bore plan shall be signed by the responsible person in charge of the bore

2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:

• Water mains 12" and greater minimum clearance is 18"
• Water mains 10" and less minimum clearance is 12"

3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.

4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance
of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.

2. The Inspector for the project will have a copy of the bore plan at the project site.

3. Prior to the HDD the Inspector shall verify that the materials at the project site for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.

4. The Inspector shall verify the following prior to the commencement of the HDD:
a. Verify that the HDD contractor has obtained his/her utility locates;
b. Verify that all utilities have been visually spotted by the HDD

contractor;
c. Verify that the permitting agency has been notified of the HDD; and
d. Witness the calibration of the sonde.

5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified.

COMPLETION OF THE BORE

1. A bore log shall be submitted to Utilities Development after completion of the bore.

B. HDD is a trenchless method for installing a product that serves as a conduit for liquids, gasses, or as a duct for pipe, cable, or wire line products. It is a multi-stage process consisting of site preparation and restoration, equipment setup, and drilling a pilot bore along a predetermined path and then pulling the product back through the drilled space. When necessary, enlargement of the pilot bore hole may be necessary to accommodate a product larger than the pilot bore hole size. This process is referred to as back reaming and is done at the same time the product is being pulled back through the pilot bore hole.

Accomplish alignment of the bore by proper orientation of the drill bit head as it is being pushed into the ground by a hydraulic jack. Determine orientation and tracking of the drill bit by an above ground radio detection device which picks up a radio signal generated from a transmitter located within the drill bit head. Then electronically translate the radio signal into depth and alignment. In order to minimize friction and prevent collapse of the bore hole, introduce a soil stabilizing agent (drilling fluid) into the annular bore space from the trailing end of the drill bit. The rotation of the bit in the soil wetted by the drilling fluid creates a slurry. The slurry acts to stabilize the surrounding soil and prevent collapse of the bore hole as well as provides lubrication.

Select or design drilling fluids for the site specific soil and ground water conditions. Confine free flowing (escaping) slurry or drilling fluids at the ground surface during pull back or drilling. Accomplish this by creating sump areas or vacuum operations to prevent damage or hazardous conditions in surrounding areas. Remove all residual slurry from the surface and restore the site to pre-construction conditions.

1.02 RELATED SECTIONS

A. Section 02220 - Excavating, Backfill and Compacting

B. Section 02660 – Pressure Pipes and Accessories

1.03 QUALITY ASSURANCE/REFERENCES

A. The requirements set forth in this document specify a wide range of procedural precautions necessary to ensure that the very basic, essential aspects of a proper directional bore installation are adequately controlled. Strict adherence shall be required under specifically covered conditions outlined in this specification. Adherence to the specifications contained herein, or the Engineer's approval of any aspect of any directional bore operation covered by this specification, shall in no way relieve the Contractor of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract.

B. Reference is made to the following standards of the American Society for Testing and Materials (ASTM) latest edition:

1. Polyethylene pipe shall be manufactured in accordance with and conforming with AWWA C 906 latest edition and ASTM F714. Pipe diameters are as shown on the drawings
2. Polyethylene extrusion compound from which the polyethylene pipe is extruded must comply with application requirements for PE-4710 high molecular weight polyethylene plastic material, as described in ASTM D 3350

1.04 SUBMITTALS

A. Prior to beginning work, the Contractor shall submit to the Engineer a general work plan outlining the procedure and schedule to be used to execute HOD project. Plan should document the thoughtful planning required to successfully complete the bore installation.

B. Contractor shall submit specifications on directional drilling equipment to be used to ensure that the equipment will be adequate to complete the project. Submittal shall demonstrate that pullback forces are sufficient to complete the entire project without imposing excessive forces on the HDPE pipe. Include calculations prepared by Florida registered engineer demonstrating acceptable forces for this installation material combination. In general, calculations shall follow the currently accepted model as shown by NASTT.

C. Specifications on material to be used shall be submitted to Engineer.

Material shall include the pipe, fittings and any other item that is to be an installed component of the project.

D. Furnish a Bore Path Report to the Engineer within seven days of the completion of each bore path. Include the following in the report:

1. Location of project and financial project number including the Permit Number when assigned

2. Name of person collecting data, including title, position and company name

3. Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way)

4. Identification of the detection method used

5. Elevations and offset dimensions as required in the nearest hundredth of a foot.

E. Provide the Engineer a complete set of As-Built Plans showing all bores (successful and failed) within 30 calendar days of completing the work. Ensure that the plans are dimensionally correct copies of the Contract plans and include roadway plan and profile, cross-section, boring location and subsurface conditions as directed by the Engineer. The plans must show appropriate elevations and be referenced to a Department Bench Mark when associated with a Department project, otherwise to a USGS grid system and datum, or a specific location on top of an existing Department headwall. Plans must be same scale in black ink on white paper, of the same size and weight as the Contract plans. Submittal of electronic plans data in lieu of hard copy plans is preferred and may be approved by the Engineer if compatible with the Department software. Specific plans content requirements include but may not be limited to the following:

1. The Contract plan view shows the center line location of each facility installed, or installed and placed out of service, to an accuracy of 1 inch at the ends and other points physically observed in accordance with the bore path report.

2. As directed by the Engineer, provide either a profile plan for each bore path, or a cross-section of the roadway at a station specified by the Engineer, or a roadway centerline profile. Show the ground or pavement surface and crown elevation of each facility installed, or installed and placed out of service, to an accuracy within 1 inch at the ends and other exposed locations. On profile plans for bore

paths crossing the roadway, show stationing of the crossing on the Contract plans. On the profile plans for the bore paths paralleling the roadway, show the Contract Plans stationing. If the profile plan for the bore path is not made on a copy of one of the Contract profile or cross-section sheets, use a 10 to 1 vertical exaggeration.

3. If, during boring, an obstruction is encountered which prevents completion of the installation in accordance with the design location and specification, and the product is left in place and taken out of service, show the failed bore path along with the final bore path on the plans. Note the failed bore path as "Failed Bore Path – Taken Out of Service". Also show the name of the Utility owner, location and length of the drill head and any drill stems not removed from the bore path.

4. Show the top elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during a subsoil investigation or the installation, show the type of material, horizontal and vertical location, top and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

5. Include bore notes on each plan stating the final bore path diameter, product diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the product, or facility placed out of service. Note if the product is a casing as well as the size and type of carrier pipe placed within the casing as part of the Contract work.

1.05 QUALIFICATIONS

A. REQUIREMENTS

Contractor shall provide at least two (2) work references for which similar work has been conducted within the last two years using the same foreman. A contact name and telephone number must be included for each reference. Conventional trenching experience or jack and bore experience will not be considered applicable. Contractor shall provide a structurally sound, leak-proof, HDPE pipe for all piping identified for installation by horizontal directional drilling. Individual pipe lengths shall be assembled by butt-fusion unless otherwise specified. Connecting fittings shall be mechanically joined and restrained to the piping as specified. Contractor shall also be responsible for all installation processes included drilling, back-reaming, management and disposal of all drilling fluid, dewatering flow around his work, and leak testing the HDPE pipe and fittings in accordance with these Specifications.

B. PIPE DESCRIPTION
Supplier shall furnish high density polyethylene pipe (HDPE) pipe conforming to AWWA C906 latest edition and ASTM F714, including all applicable standards and procedures, and meeting all applicable testing and material properties as described by those standards or within this Specification. As defined in AWWA C906, pipe and couplings shall be homogeneous throughout and free from voids, cracks, inclusions, and other defects, and shall be as uniform as commercially practicable in color, density, and other physical characteristics.

C. MANUFACTURER REQUIREMENTS
Polyethylene extrusion compound from which the polyethylene pipe is extruded must comply with application requirements for PE-4710 high molecular weight polyethylene plastic material, as described in ASTM D 3350.

D. FUSION TECHNICIAN REQUIREMENTS
Fusion Technician shall be fully qualified by the pipe supplier to install HDPE pipe of the type(s) and size(s) being used. Fusion Technician shall have three years of experience doing work of a similar nature required for this project. Qualification shall be current as of the actual date of fusion performance on the project.

PART 2 - PRODUCTS

2.01 DRILLING SYSTEM

A. DRILL RIG
The directional drilling equipment shall consist of a directional drilling rig of sufficient capacity to perform the bore and pullback the pipe, a drilling fluid mixing & delivery system of sufficient capacity to successfully complete the crossing, a guidance system to accurately guide boring operations and trained and competent personnel to operate the system. All equipment shall be in good, safe operating condition with sufficient supplies, materials and spare parts on hand to maintain the system in good working order for the duration of this project.

B. DRILL HEAD
The drill head shall be steerable by changing its rotation and shall provide the necessary cutting surfaces and drilling fluid jets.

C. MUD MOTOR (If required)
Mud motors (if required) shall be of adequate power to turn the required drilling tools.

E. DRILL PIPE
Drill pipe shall be constructed of high quality 4130 seamless tubing, grade D or better, with threaded box and pins. Tool joints should be hardened to 32-36 RC.

2.02 GUIDANCE SYSTEM

A. The Guidance System shall be of a proven type and shall be setup and operated by personnel trained and experienced with this system. The Operator shall be aware of any magnetic anomalies and shall consider such influences in the operation of the guidance system if using a magnetic system.

2.03 DRILLING FLUID (MUD) SYSTEM

A. MIXING SYSTEM
A self-contained, closed, drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid composed of bentonite clay, potable water and appropriate additives. Mixing system shall be able to shear individual bentonite particles from the dry powder to avoid clumping and ensure thorough mixing. The drilling fluid reservoir tank shall be sized for adequate storage of the mud. Mixing system shall continually agitate the drilling fluid during drilling operations.

B. DRILLING FLUIDS
Drilling fluid shall be composed of clean water and an appropriate additive. Water shall be from a clean source with a pH of 8.5-10 and/or as per mixing requirements of the Manufacturer. Water of a lower pH or with excessive calcium shall be treated with the appropriate amount of sodium carbonate or equal. The water and additives shall be mixed thoroughly and be absent of any clumps or clods. No hazardous additives may be used. Drilling fluid shall be maintained at a viscosity sufficient to suspend cuttings and maintain the integrity of bore wall.

C. DELIVERY SYSTEM
The mud pumping system shall have a minimum capacity to supply mud in accordance with the drilling equipment pull back rating at a constant required pressure. The delivery system shall have filters in-line to prevent solids from being pumped into the drill pipe. Connections between the pump and drill pipe shall be relatively leak-free. Used drilling fluid and drilling fluid spilled during drilling operations shall be contained and properly disposed of. A berm, minimum of 12" high, shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits and drilling fluid recycling system (if used) to prevent spills into the surrounding environment. Pumps and or vacuum truck(s) of sufficient size shall be in place to convey excess drilling fluid from containment areas to storage

facilities.

2.04 OTHER EQUIPMENT

A. PIPE ROLLERS
Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe while being hydro-tested and during pull-back operations. Sufficient number of rollers shall used to prevent excess sagging of pipe.

B. PIPE RAMMERS
Hydraulic or pneumatic pipe rammers may only be used if necessary and with the authorization of Engineer.

C. RESTRICTIONS
Other devices or utility placement systems for providing horizontal thrust other than those defined in the preceding sections shall not be used unless approved by the Engineer prior to commencement of the work. Consideration for approval will be made on an individual basis for each specified location. The proposed device or system will be evaluated prior to approval or rejection on its potential ability to complete the utility placement satisfactorily without undue stoppage and to maintain line and grade within the tolerances prescribed by the particular conditions of the project.

PART 3 - EXECUTION

3.01 GENERAL

A. The Contractor must schedule a pre-bore meeting with the City of Cocoa Utilities Department. The Engineer must be notified 48 hours in advance of starting work. The Directional Bore shall not begin until the Engineer is present at the job site and agrees that proper preparations for the operation have been made. The Engineer approval for beginning the installation shall in no way relieve the Contractor of the ultimate responsibility for the satisfactory completion of the work as authorized under the Contract. It shall be the responsibility of Engineer to provide inspection personnel at such times as appropriate without causing undue hardship by reason of delay to the Contractor.

3.02 PERSONNEL REQUIREMENTS

A. All personnel shall be fully trained in their respective duties as part of the

directional drilling crew and in safety.

3.03 DRILLING PROCEDURE

A. SITE PREPARATION

1. Prior to any alterations to work-site, contractor shall photograph or videotape entire work area, including entry and exit points. One copy of this record shall be given to Engineer and one copy to remain with contractor for a period of one year following the completion of the project.
2. Work site, as indicated on drawings, shall be graded or filled to provide a level working area. No alterations beyond what is required for operations are to be made. Contractor shall confine all activities to designated work areas.
3. Verify that there are no conflicts with existing utilities prior to the start of work.

B. DRILL PATH SURVEY

Entire drill path shall be accurately surveyed with entry and exit stakes placed in the appropriate locations within the areas indicated on drawings. If contractor is using a magnetic guidance system, drill path will be surveyed for any surface geo-magnetic variations or anomalies.

C. ENVIRONMENTAL PROTECTION

Contractor shall place silt fence between all drilling operations and any drainage, wetland, waterway or other area designated for such protection by contract documents, state, federal and local regulations. Additional environmental protection necessary to contain any hydraulic or drilling fluid spills shall be put in place, including berms, liners, turbidity curtains and other measures. Contractor shall adhere to all applicable environmental regulations. Fuel or oil may not be stored in bulk containers within 200' of any waterbody or wetland.

D. SAFETY

Contractor shall adhere to all applicable state, federal, and local safety regulations and all operations shall be conducted in a safe manner. Safety meetings shall be conducted at least weekly with a written record of attendance and topic submitted to Engineer.

E. PIPE

1. HDPE pipe shall be manufactured in accordance with and conforming with AWWA C 906 latest edition and ASTM F714. Pipe diameters are as shown on the drawings. Pipe wall thickness shall be DR 11. Pipe shall be in accordance with ASTM D2241 for IPS standard dimensions as indicated in these Specifications.

2. Polyethylene pipe shall be rated for use with water at 73.4 degrees F at a hydrostatic design basis of 1,600 psi.

3. HDPE pipe shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe.

4. Polyethylene extrusion compound from which the polyethylene pipe is extruded must comply with application requirements for PE-4710 high molecular weight polyethylene plastic material, as described in ASTM D 3350.

5. Pipe shall be furnished in standard laying lengths not to exceed 50 feet and no shorter than 20 feet

6. The pipe color shall be solid color or co-extruded with color strips for wastewater, potable water or reclaimed water and marked to include nominal pipe or tubing size; type of plastic material, i.e., PE-4710; standard thermoplastic pipe dimension ratio or pressure rating in psi for water at 73.4oF @100 psi; ASTM designation with which pipe complies; and manufacturer's name or trademark and code.

7. All molded fittings and fabricated fittings shall be fully pressure rated to match the pipe STANDARD DIMENSION RATIO pressure rating to which they are made. All fittings shall be molded or fabricated by the manufacturer. No Contractor fabricated fittings shall be used unless approved by the Utility.

8. The manufacturer of the HDPE pipe shall supply all HDPE fittings and accessories as well as any adapters and/or specials required to perform the work as shown on the Drawings and specified herein.

9. All fittings shall be installed using butt-fused fittings, thermo-fused fittings/couplings, or flanged adapters and must be approved by the Utility. Size on size wet taps are prohibited for HDPE pipe

10. All transition from HDPE pipe to ductile iron or PVC shall be made per the approval of Engineer and per the HDPE pipe manufacturer's recommendations and specifications. A molded flange connector adapter within a carbon steel back-up ring assembly shall be used for pipe type transitions. Ductile iron back-up rings shall mate with cast iron flanges per ANSI B16.1. A 316 stainless steel back-up ring shall mate with a 316 stainless steel flange per ANSI B16.1

11. Stainless steel stiffener inserts shall be installed in the bore of HDPE pipe when connection plain end HDPE pipe with mechanical fittings of valves. Stiffeners may be one or two pieces and shall be constructed of 316 stainless steel

12. Pipe shall be homogeneous throughout and be free of visible cracks, holes, foreign materials, blisters, or other deleterious faults.

13. HDPE pipe shall be heat fused and pressure tested as per manufacturer's guidelines before installation in the borehole. During assembly and prior to pullback, pipe must be laid out in such a way as to minimize interference to pedestrian and vehicular traffic. Pipe shall be welded/fused together in one length, if space permits. Pipe will be placed on pipe rollers before pulling into bore hole with rollers spaced close enough to prevent sagging of pipe.

F. FUSION PROCESS FOR HDPE INSTALLATION

1. General

a. HDPE pipe will be handled in a safe and non-destructive manner before, during, and after the fusion process and in accordance with this Specification and pipe supplier's recommendations.

b. The pipe shall be joined with butt, heat fusion joints as outlined in ASTM D2657 and conform to the Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe, Technical Report TR-33/2005, published by the Plastic Pipe Institute (PPI). All joints shall be made in strict compliance with the manufacturer's recommendations. A factory qualified joining technician as designated by pipe manufacturer or experienced, trained technician shall perform all heat fusion joints. Training records for qualified fusion technicians shall be available to Owner or Engineer, upon request.

c. Lengths of pipe shall be assembled into suitable installation lengths by the butt- fusion process. All pipes so joined shall be made from the same class and type of raw material made by the same raw material supplier. Pipe shall be furnished in standard laying lengths not to exceed 50 feet and no shorter than 20 feet.

d. On days butt fusions are to be made, the first fusion shall be a trial fusion in the presence of an inspector. The following shall apply:

1) The fusion or test section shall be cut out after cooling completely for inspection.

2) The test section shall be 12" or 30 times (minimum) the wall thickness in length and 1" or 1.5 times the wall thickness in width (minimum).
3) The joint shall be visually inspected as to continuity of "beads" from the melted material, and for assurance of "cold joint" prevention (i.e. – joint shall have visible molded material between walls of pipe). Joint spacing between the walls of the two ends shall be a minimum of 1/16" to a maximum 3/16".

e. Each joint fusion shall be recorded and logged by an electronic monitoring device (data logger) affixed to the fusion machine. Joint data shall be submitted as part of the As-Recorded information, in accordance with this specification.
f. The HDPE pipe will be installed in a manner so as not to exceed the recommended bending radius.
g. The polyethylene flange adapters at pipe material transitions shall be backed up by stainless steel flanges conforming to ANSI B16.1 and shaped as necessary to suit the outside dimensions of the pipe. The flange adapter assemblies shall be connected with corrosion resisting bolts and nuts of Type 316 Stainless Steel as specified in ASTM A726 and ASTM A307. All bolts shall be tightened to the manufacturer's specified torques. Bolts shall be tightened alternatively and evenly. After installation, apply a bitumastic coating to bolts and nuts.
h. Care shall be taken in loading, transporting and unloading to prevent damage to the pipe. Pipe or fittings shall not be dropped. All pipe or fittings shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to the pipe shall be repaired as directed by the Engineer. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner by the contractor, at his own expense.
i. Under no circumstances shall the pipe or accessories be dropped into the trench or forced through a directional bore upon "pull-back".
j. Care shall be taken during transportation of the pipe such that it will not be cut, kinked or otherwise damaged.
k. Ropes, fabric or rubber protected slings and straps shall be used when handling pipes. Chains, cables or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe.
l. Pipes shall be stored on level ground, preferably turf or

sand, free of sharp objects, which could damage the pipe. Stacking of the polyethylene pipe shall be limited to a height that will not cause excessive deformation of the bottom layers of pipes under anticipated temperature conditions. Where necessary due to ground conditions, the pipe shall be stored on wooden sleepers, spaced suitably and of such width as not to allow deformation of the pipe at the point of contact with the sleeper or between supports.

m. Pipe shall be stored on clean level ground to prevent undue scratching or gouging. The handling of the pipe shall be in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. The maximum allowable depth of cuts, scratches or gouges on the exterior of the pipe is 5 percent of wall thickness. The interior pipe surface shall be free of cuts, gouges or scratches.

n. Pipe shall be laid to lines and grade shown on the Drawings with bedding and backfill as shown on the Drawings.

o. When laying is not in progress, including lunchtime, the open ends of the pipe shall be closed by fabricated plugs, or by other approved means.

p. Sections of pipe with cuts, scratches or gouges exceeding 5 percent of the pipe wall thickness shall be removed completely and the ends of the pipeline rejoined.

q. The pipe shall be joined by the method of thermal butt fusion. All joints shall be made in strict compliance with the manufacturer's recommendations.

r. All HDPE pipe must be at the temperature of the surrounding soil at the time of backfilling and compaction.

s. If a defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner at no additional cost to the Utility. All pipe and fittings shall be thoroughly cleaned before installation, shall be kept clean until they are used in the work and when laid, shall conform to the lines and grades required.

t. Restrained joints shall be installed where shown on the Drawings or as directed by the Engineer.

u. Where HDPE pipe is installed by pulling in tension, the recommended Safe Pulling Force, according to the pipe supplier, will not be exceeded.

v. Only appropriately sized, and outfitted fusion machines that have been approved by the pipe supplier shall be used for the fusion process. Fusion machines must incorporate the following properties, including the following elements:

1) Heating plate surfaces shall be inspected for cuts

and scrapes and shall be free of dirt and residue. Heater surfaces should be between 400° F (minimum) to 450° F (maximum). Measure the temperature @ 12:00, 3:00, 6:00 and 9:00 o'clock positions using a pyrometer or infrared thermometer at locations where the heating plate will contact the pipe/fitting ends. The maximum temperature difference between any two points on a single heating surface must not exceed 24° F. If this temperature is exceeded, the heating plate shall be cleaned per the manufacturer's recommendations.

2) Carriage - Carriage shall travel smoothly with no binding at less than 50 psi. Jaws shall be in good condition with proper inserts for the pipe size being fused. Insert pins shall be installed with no interference to carriage travel.

3) General Machine - Overview of machine body shall yield no obvious defects, missing parts, or potential safety issues during fusion.

4) Datalogger - The current version of the pipe supplier's recommended and compatible software shall be used. Protective case shall be utilized for the hand held wireless portion of the unit. Datalogger operations and maintenance manual shall be with the unit at all times. If fusing for extended periods of time, an independent 110V power source shall be available to extend battery life.

w. Other equipment specifically required for the fusion process shall include the following:

1) Pipe rollers shall be used for support of pipe to either side of the machine.

2) A weather protection canopy that allows full machine motion of the heat plate, fusion assembly and carriage shall be provided for fusion in inclement and/or windy weather.

3) Fusion machine operations and maintenance manual shall be kept with the fusion machine at all times.

4) Facing blades specifically designed for cutting fusible polyvinyl chloride pipe.

2. Joint Recording

a. Each fusion joint shall be recorded and logged by an electronic monitoring device (data logger) connected to the

fusion machine. The fusion data logging and joint report shall be generated by software developed specifically for the butt-fusion of thermoplastic pipe. The software shall register and/or record the parameters required by the manufacturer and these Specifications. Data not logged by the data logger shall be logged manually and be included in the Fusion Technician's joint report.

G. PILOT HOLE

1. Pilot hole shall be drilled on bore path. As-built variance from designed bore path shall not exceed +/- 0.5 feet in the vertical plane and +/- 2 feet in the horizontal plane. In the event that pilot does deviate from bore path in excess of these variances, contractor will notify Engineer and Engineer may require contractor to pull-back and re-drill from a location along bore path before the deviation. Contractor is responsible for providing the certified as-built information showing vertical depth to the centerline of the pipe at 10' intervals and any deviations in the horizontal plane measured from fixed objects.
2. In the event that a drilling fluid fracture, inadvertent returns or returns loss occurs during pilot hole drilling operations, contractor shall cease drilling, wait at least 30 minutes, inject a quantity of drilling fluid with a viscosity exceeding 120 seconds as measured by a March funnel and then wait another 30 minutes. If mud fracture or returns loss continues, contractor will cease operations and notify Engineer. Engineer and contractor will discuss additional options and work will then proceed accordingly.
3. When crossing DOT roadways it is required that the casing pipe is 10 times the reamer diameter beneath the surface.

H. REAMING

Upon successful completion of pilot hole, contractor will ream borehole to a minimum of 25% greater than outside diameter of pipe using the appropriate tools. Contractor will not attempt to ream at one time more than the drilling equipment and mud system are designed to safely handle.

I. PULL-BACK

1. After successfully reaming borehole to the required diameter, contractor will pull the pipe through the borehole. In front of the pipe will be a swivel. Once pull-back operations have commenced, operations must continue without interruption until pipe is completely pulled into bore hole. During pull-back operations contractor will not apply more than the maximum safe pipe pull

pressure at any time.

2. In the event that pipe becomes stuck, contractor will cease pulling operations to allow any potential hydro-lock to subside and will commence pulling operations. If pipe remains stuck, contractor will notify Engineer. Engineer and contractor will discuss options and then work will proceed accordingly.

3.04 PIPE TESTING AND DISINFECTION

A. Test and disinfect pipeline in accordance with Section 02660.

3.05 DISPOSAL OF SURPLUS FLUIDS

A. All drill fluid excess should be contained in entry and/or exit pits and pumped as needed into additional on-site storage tanks, tanker trucks, vac trucks, etc. Contractor shall dispose of drill fluid excess to the satisfaction of the Owner. After extraction drill fluids, pits and work areas are to be restored to equal or better condition than pre-construction condition. At no time will surface runoff of drill fluid be allowed.

B. The Contractor at no extra charge shall dispose all material not needed or not suitable for backfilling over or around the entry and receiving pits. The disposal shall be subject to local codes and regulations.

3.06 SITE RESTORATION

A. Following drilling operations, contractor will de-mobilize equipment and restore the worksite to original condition. All excavations will be backfilled and compacted in accordance with these specifications. Landscaping will be restored to original.

3.07 RECORD KEEPING

A. AS-BUILTS

1. Contractor shall maintain a daily project log of drilling operations and guidance system log with a copy given to Engineer at completion of project. Contractor shall certify as-built drawings as to accuracy.

*****END OF SECTION *****

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SECTION 02480

SODDING

PART 1- GENERAL

1.01 SCOPE OF WORK

A. The Contractor will establish a healthy stand of grass on slopes, shoulders, Lawns and other areas as shown on the Drawings and specified herein.

B. Seed and mulch will not be acceptable for restoration of sodded areas disturbed by the construction.

C. Related Work

1. Section 02220 Excavating, Backfill and Compaction
2. Section 02482 Landscaping for Utilities

1.02 SUBMITTALS

A. The Contractor will submit shop drawings as required by the General Conditions. The shop drawings will include information regarding materials, application rates, and grassing methods.

PART 2- PRODUCTS

2.01 MATERIALS

A. Sod: Healthy, certified, weed-free sod meeting the requirements of FDOT Section 981. Unless the Drawings require another species of grass, Bahia will be used for all sodding. For locations where the homeowner has St. Augustine sod, the replacement sod shall be St. Augustine sod.

B. Fertilizer: Uniform 12-8-8 grade meeting the requirements of FDOT Section 982.

C. Limestone: Agricultural grade limestone meeting the requirements of FDOT Section 982.

D. Water: Suitable water meeting the requirements of FDOT Section 983.

PART-3 PRODUCTS

3.01 SODDING

A. All equipment, construction methods, and maintenance related to sodding will be done in accordance with FDOT Section 575. Fertilizer and limestone will be applied at the following rates:

Fertilizer:	500 lbs./acre
Limestone:	1,000 lbs./acre

****END OF SECTION ****

SECTION 02482

LANDSCAPING FOR UTILITIES

PART 1- GENERAL

1.01 SCOPE

A. This section covers all work necessary to furnish and install topsoil, fertilizer, sod, trees, bushes, ornamental plants, fencing, planters, temporary storage of trees, and related items necessary to complete the work shown or specified (if any).

B. Repair or replace lawn areas, trees, ornamental plants, and associated irrigation system components, damaged or destroyed during construction of the Work included in this Contract, unless otherwise shown on the Drawings. Repair or replace fences, mailboxes, planters, and other items damaged or destroyed during construction of the work included in this Contract, unless otherwise shown on the Drawings.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this specification to the extent required by the reference thereto. Latest revisions will apply, unless otherwise shown or specified.

B. Florida Department of Transportation (FDOT) Specifications

FDOT Specification	Florida Department of Transportation Standard Specifications for Road and Bridge Construction, current edition

C. Florida Department of Agriculture Standards

D. City of Cocoa Technical Provisions and Standard Details Manual

1.03 DEFINITIONS

A. Lawn Areas

Lawn areas include grassed areas that are cut and maintained on a routine basis. Lawn areas include lawns at homes and businesses and grass shoulders of streets, roads, and highways.

1.04 SUBMITTALS

A. No submittals are required for the products included in this section of the Specifications.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Be responsible for the delivery, storage, and handling of products. Deliver packaged products to the site in the manufacturer's original sealed packaging materials, clearly marked to identify the manufacturer and the contents.

B. Promptly remove damaged, deteriorated, or unsuitable products from the job site. Replace damaged, deteriorated, or unsuitable products with undamaged, undeteriorated, and suitable materials.

PART 2- PRODUCTS

2.01 STRIPPING AND STOCKPILING OF TOPSOIL

A. Strip the upper 6 to 12 inches of mulch with small soil and vegetation and other organic material removed therewith from the excavated areas. Clean topsoil may be stockpiled for reuse as the upper 6 inches of the areas to be sodded.

B. Do not intermix grass, weeds, roots, rootmail, brush, and stones larger than 3 inches with the stockpiled topsoil. Dispose of root contaminated soil.

2.02 TOPSOIL

A. Stockpile topsoil for re-use in landscape work. If quantity of stockpiled topsoil is insufficient, provide additional topsoil as required to complete landscape work.

B. If required, provide new topsoil that is fertile, friable surface soil, reasonably free of subsoil, clay Jumps, brush, weeds, and other litter, and free of roots, stumps, stones larger than 1-1/2 inch in any dimension, and other extraneous or toxic matter harmful to plant growth.

C. Obtain topsoil from local sources or from areas having similar soil characteristics to that found at the project site. Obtain topsoil only from naturally, well-drained sites where topsoil occurs in a depth of not less than 4 inches; do not obtain from bogs or marshes.

2.03 FERTILIZER

A. Fertilizers will be uniform in composition, delivered to the site fully labeled in conformance with applicable state fertilizer laws and bear the analysis, trade name or trademark, warranty of the producer, and application instructions.

B. Apply fertilizer and adjust soil pH as recommended by the Florida Extension Soil Testing Laboratory (F.E.S.T.L.) and as approved by the Owner.

2.04 EXISTING SOD

At the Contractor's discretion, existing sod may be reused in exchange of new sod providing the following provisions are met:

A. Sod is machine stripped at a uniform soil thickness of approximately 1 inch. Exclude top growth and thatch from measurement for thickness and determine at the time of cutting in the field.

B. Sod will be cut with clean, smooth, straight edges to minimize restoration.

C. Contractor is responsible for stockpiling and maintaining the sod prior to replacement and for the Contract warranty period.

D. Disturbed areas will be restored to a condition at least as good as the pre-existing condition.

2.05 NEW SOD

A. All sod will be certified to meet FDA Standards, absolutely true to variety type, and free from weeds or other objectionable vegetation.

B. Provide certified nursery grown sod to match existing grass, not less than 18 months old. Sod will have been grown in a sterilized, sandy loam-growing medium.

C. Sod will be machine stripped at a uniform soil thickness of approximately 1 inch, plus or minus 1/4 inch for nursery grown sod. Exclude top growth and thatch from measurement for thickness and determine at the time of cutting in the field.

D. Provide sod with root development such that standard size pieces will support their own weight and retain their shape when:

1. Suspended vertically from a firm grasp on the uppermost 10% of area; or
2. When rolled and unrolled three times.

E. Provide sod reasonably free from diseases and soil borne insects.

2.06 TEMPORARY STORAGE OF TREES

A. Trees identified on the Drawings to be relocated will be stored in an area provided by the contractor. Contractor will protect root system of trees to be relocated during the removal and storage process. Tree(s) will be installed in conformance with Section 580 of the FDOT Specification in an area as directed by the City of Cocoa Field Inspector.

2.07 FENCE AND OTHER PRODUCTS

A. Provide new and unused replacement fence, mailboxes, planters, and other items of the same type as the items removed. Fence, mailboxes, planters, and other items will be of equal quality to the items removed when the items removed were new. Undamaged existing fence, mailboxes, planters, and other items may be reinstalled rather than replaced.

2.08 REPLACEMENT TREES

A. Refer to pertinent requirements of the Land Development Code of the City of Cocoa Beach, Chapter IV, Article V.

PART 3- EXECUTION

3.01 GRADING

A. Fine grade all non-paved areas disturbed during construction smooth and uniform to finish elevations and grades the same as elevations and grades prior to construction, unless otherwise shown on the Drawings.

3.02 SODDING

A. Sod areas where grass has been disturbed or removed during construction of the Work in conformance with Section 575 of the FDOT Specification.

B. Any area outside the limits of work that is disturbed by construction will be immediately replaced with sod or ground cover of the species that was disturbed.

3.03 PLANTING TREES AND OTHER PLANTS

A. Install trees and other plants in conformance with Section 580 of the FDOT Specification, and the pertinent requirements of the Land Development Code of the City of Cocoa Beach, Chapter IV, Article V.

3.04 FENCING AND OTHER RESTORATION

A. Locate fences, mailboxes, planters, and other items in the same location that the item had been prior to construction. Erect wire and board fences plumb and on straight lines. Set mailboxes, posts, poles, and similar items plumb. Restore planters and similar items to the same shape the items had been prior to construction.

B. Install wire fences with the proper tension for the type of wire fence restored. Properly erect or construct other fences and items.

3.05 RESTORATION AND CLEAN-UP

A. Restoration of disturbed areas will be totally completed at the end of each workweek regardless of what stage the construction is in. If the Contractor fails to adequately restore disturbed areas, as outlined above, by two hours after the end of work on any Friday, the Owner may mobilize its own or outside forces to complete the restoration as specified. In such a case, a deductive change order will be issued including an appropriate reduction in the Contract Price for all direct and indirect costs of the restoration. Failure to provide adequate weekly restoration in excess of two times will be grounds for termination of the Contract at the Owner's option. The above requirement will not apply if the Contractor is on-site working throughout the weekend. Weekend work must be approved by the owner 48 hours in advance.

B. Clean up the job site following landscaping. Remove rubbish, excess materials, temporary structures, and equipment. Leave the work in a neat and presentable condition.

****END OF SECTION****

SECTION 02516

BRICK PAVING

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

A. Concrete: State of Florida, Department of Transportation, "Standard Specifications for Road and Bridge Construction, “2016”, as amended to date.

B. Installation standards: Brick Institute of America (BIA) recommendations.

C. Maintaining Agency: City of Cocoa Beach Public Works

1.02 SUBMITT ALS

A. Product data:
   1. Concrete mix design.

B. Samples:
   1. Brick pavers for color selection.
   2. Grout for color selection.

C. Contract closeout information:
   1. Maintenance data.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable Manufacturers:
   1. Materials listed.
      a. Base:
         1) As noted in the Plans
   2. Expansion joint filler:
      a. Base:
         1) Sonneborn Building Products.
      b. Optional:
         1) Meadows, WR.
      c. Approved equal

3. Cleaner:
   a. Base:
      1) ProSoCo.
   b. Approved equal

4. Paver coating:
   a. Base:
      1) Hillyard.
   b. Optional:
      1) ProSoCo.
   c. Approved equal

B. Pavers:
1. ASTM-C902, Class SX, Traffic Type I, application PS.
2. Material:
   1) Appian-Stone as manufactured by Paver Systems of Orlando, Florida or approved equal
3. Size:
   a. Thickness
      1) 2-3/8"
   b. Sidewalk Interior
      1) 6-5/16" x 6-5/16"
      2) 6-5/l6" x 9-7/16"
   c. Sidewalk Border
      1) 3-7/8" x 7-7/8"
4. Colors and finishes as approved by the City of Cocoa Beach.
   a. Sidewalk Interior
      1) Adobe
   b. Sidewalk Border
      1) Charcoal
5. Patterns shall be "T" Pattern utilizing 70% rectangles and 30% squares

C. Concrete base: Compacted recycled concrete

D. Setting bed:
1. Portland cement: ASTM-C 150.
2. Sand: ASTM-C33.
3. Water: Potable.

E. Grout:
1. Latex - Portland cement grout similar to mortar for setting bed.
2. Color as approved by the City of Cocoa.

F. Expansion joint filler:
1. ASTM-0545, flexible foam, 13 mm 1/2 IN thick.
a. Base: Sonneborn "Sonoflex F."
b. Optional: WR Meadows "Ceramar."
c. Approved equal

G. Sealant:
1. l. F.S.TT-S-00227E, Type I, Class A, polyurethane type.
2. Use self-leveling type for horizontal joints.
3. Use gun-grade non-sag type for horizontal and vertical joints.

H. Cleaner:
1. Base Product: ProSoCo, product most suited to pavers specified.
2. Approved equal

I. Paver coating:
1. Base: Hillyard, Super Shinol.
2. Optional: Prosoco, Protectile.
3. Approved equal

PART 3- EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Installation constitutes acceptance of responsibility for performance.

3.02 PREPARATION

A. Brick on grade:
1. Set top of concrete base to required elevation (brick thickness plus 25 mm 1 IN below finished grade).
2. Do not place concrete until subgrade and forms have been checked for line and grade.
a. Do not place concrete around structures or frames until they have been brought to required grade and alignment.
3. Moisten subgrade as required to provide a uniform dampened condition at time concrete is placed.

3.03 INSTALLATION

A. Remove existing brick pavers with care in order to minimize quantity damaged.

B. Recycle existing brick pavers that were undamaged during removal and blend with new brick pavers.

C. On properly compacted subgrade, install minimum 100 mm 4 IN to 6 IN layer of recycled concrete.
   1. Provide rough finish for bonding of setting bed.
   2. Instal1 expansion joints as indicated and where pavement abuts other structures.
   3. Set joint filler to within 13 mm (l/2 IN) of finished surface.

D. Spread 25 mm 1 IN-thick setting bed over concrete base.

E. Set pavers into setting bed while mortar is still plastic or set in thin set mortar over prepared setting bed.

F. Blend surrounding existing brick pavers with new brick pavers during installation.

G. Install in accordance with ANSI and BIA recommendations.

H. Cut units with powered masonry saw.

I. Lay out so that fields or patterns center in areas.

J. Avoid pieces smaller than 0.5 brick.

K. Tap each unit firmly into place to assure full adhesion.

L. Set units with nominal 13 mm 1/2 IN joints.

M. Coat tops of pavers with paver coating.

N. Force grout in to assure complete filling of joints.

O. Remove surplus grout and leave faces clean.

P. Provide sealant in joints where pavers abut vertical surfaces, around penetrations and over expansion or control joints and not over 3660 mm 12 FT OC in field.

3.04 PROTECTION

A. Protect installed pavers with taped in place polyethylene.

B. Provide traffic protection as required.

3.05 CLEANING

A. Remove protective coverings.

B. Clean entire surface with cleaning compound.

C. Protect adjacent surfaces from damage during cleaning.

D. Leave installation clean.

**** END OF SECTION ****

SECTION 02574

PAVEMENT REMOVAL AND REPLACEMENT

PART 1 - GENERAL

3.01 DESCRIPTION

A. Work included under this Section consists of cutting, removing, milling, protecting and replacing existing pavements of the various types encountered, roadways, streets, driveways, sidewalks, curb and combination curb and gutter, and underdrains where encountered and broken into. Restoration work under this Section will start immediately after trench has been backfilled and will continue to progress at the same rate as pipe laying.
   1. Open cuts will not be permitted until scheduled and as approved by the Owner.
   2. Where existing pavement is removed for the purpose of adjusting existing utilities, constructing or removing pipe, appurtenances, facilities, or structures; pavement and striping will be replaced in equal or better section than the original.
   3. The Contractor will remove excavated pavement material from the site and dispose of appropriately.

B. Related Work
   1. Section 02220 Excavating, Backfill and Compaction

PART 2- PRODUCTS

2.01 GENERAL

A. Materials of construction will be as specified in these contract documents and as specified by the local authority having jurisdiction.

PART 3- EXECUTION

3.01 PAVEMENT AND SIDEWALK REMOVAL

A. Pavements, including all surface courses and base courses, will be removed to a line back from each edge of the trench or other excavation, as shown on the Drawings, cut straight, clean and square, with a power saw or other tools and equipment suitable for the work. All paving to-be replaced will match in every respect the type of existing pavement, or will be superior to the existing pavement and materials. All milling and resurfacing to be done in accordance with FDOT Specifications.

B. Concrete sidewalks, curbs, combination curb and gutter, walks, drive ribbons, or driveways will be removed by initially sawing the structure, with a suitable power saw, not more than 1-foot beyond the edge of the trench of excavation. When a formed joint in the concrete exists within 3-feet of the proposed saw cut and parallels the proposed saw cut, the removal line will be extended to the formed joint. After sawing, the material will be removed.

3.02 PROTECTION OF EXISTING IMPROVEMENTS

A. The Contractor will be responsible for the protection of all pavements, sidewalks and other improvements within the work area. All damage to such improvements, as a result of the Contractor's operations, beyond the limits of the work of pavement replacement as described herein, will be repaired by the Contractor at his expense.

3.03 CONCRETE SIDEWALKS, WALKWAYS, DRIVEWAYS, DRIVEWAY RIBBONS AND CURBS

A. Concrete sidewalks, driveways, driveway ribbons and curbs required to be removed for the installation of facilities within this Contract will be restored. Class I concrete, as defined in FDOT Specifications (Section 347) will be used in all restoration work. Replacement portions of these items will conform to the lines, grades and cross sections of the removed portions. Concrete sidewalks will be of 4-inch thickness; concrete driveways and driveway ribbons will be of at least 6-inch thickness. Sidewalks, driveways, and driveway ribbons will be reinforced with 6x6-W1.4xW1.4 welded wire fabric. Sidewalks will be in accordance with FDOT Specifications (Section 522) and have expansion joints at each end of the new sections and at intervals not to exceed 25 feet. Sidewalks will also have expansion joints where new sidewalks abut existing curbs or walls. Intermediate contraction joints will be provided at 5'-0" on center in all sidewalks. Concrete driveways and driveway ribbons will be in accordance with FDOT Concrete Pavement Specifications (Section350) and FDOT Index No. 515. Replaced concrete curb and/or gutter will joint neatly to the remaining sections.

B. Vehicular access to private properties will not be restricted for more than 4 consecutive hours.

C. The Contractor will provide written notice to the Owner a minimum of 48 hours in advance of restricting access to private properties.

3.04 PERFORMANCE

A. Settlement of Pavement
All settlement and raveling of pavement occurring during the construction and warranty periods will be repaired or replaced by the Contractor at no

additional cost to the Owner.

****END OF SECTION****

SECTION 02660

PRESSURE PIPES AND ACCESSORIES

PART 1- GENERAL

1.01 SUMMARY

A. This section covers the furnishing and installing of pipe, fittings, valves, hydrants and appurtenances necessary to complete work shown or specified. Except where specifically noted, this section applies to potable water mains, reclaimed water mains, and force mains installed with this project.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title shall form a part of this specification to the extent required by the reference thereto latest revisions shall apply, unless otherwise shown or specified.

B. American National Standards Institute (ANSI) and American Water Works Association (AWWA) Standards

ANSI B2.l	American National Standard for Pipe Threads (Except Dryseal)
ANSI Bl6.l	American National Standard for Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800
ANSI/AWWA C104/A2 l.4	American National Standard for Cement-Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water
ANSI/AWWA C105/A21.5	American National Standard for Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids
ANSI/ AWW A C110/A21.l 0	American National Standard for Ductile iron and Gray Iron Fittings, 3-inch through 48-inch for Water and Other Liquids
ANSI/ AWWA C 111/ A2 l.11-95	American National Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings
ANSI/AWWA C115/A21.15	American National Standard for Flanged Ductile Iron and Gray Iron Pipe with Threaded Flanges
ANSI/AWWA C151/A21.51	American National Standard for Ductile Iron Pipe, Centrifugally Cast in Metal Molds or

	Sand-Lined Molds, for Water or Other Liquids
ANSI/AWWA C153/A21.53	American National Standard for Ductile Iron Compact Fittings 3-inch through 16-inch for Water and Other Liquids
ANSI/AWWA C504	AWWA Standard for Rubber-Seated Butterfly Valves
ANSI/ AWWA C509	AWW A Standard for Resilient-Seated Gate Valves, 3through 12 NPS, for Water and Sewage Systems
ANSI/AWWA C515	AWWA Standard for Reduced-Wall, Resilient Seated Gate Valves, Water Supply Service
ANSI/A WWA C600	A WWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances
ANSI/ AWWA C605	AWWA Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water
ANSI/AWWA C651	AWWA Standard for Disinfecting Water Mains ANSI/ AWWA C8OO A WWA Standard for Underground Service Line Valves and Fittings
ANSI/ AWWA C900	A WWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch for Water
ANSI/AWWA C901	A WW A Standard for Polyethylene (PE) Pressure Pipe and Tubing 2-inch through 3-inch for Water Service
ANSI/ AWWA C905	A WWA Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe Nominal Diameters 14-inch through 36-inch

C. American Society for Testing and Materials (ASTM) Standards

ASTM B62	Specification for Composition Bronze or Ounce Metal Castings
ASTMB88	Specification for Seamless Copper Water Tube
ASTM D2241	Polyvinylchloride (PVC) Plastic Pipe (SDR-PR)
ASTM D2487	Classification of Soils for Engineering Purposes
ASTM D2737	Specification for Polyethylene (PE) Plastic Tubing
ASTM D2774	Recommended Practice for Underground

	Installation of Thermoplastic Pressure Piping

D. Manufacturer's Standardization Society of the Valve and Fittings Industry (MSS) Standards

MSS SP-60	Connecting Flange Joint Between Tapping Sleeves and Tapping Valves Tapping Valves

1.03 DEFINITIONS

A. Abbreviations

ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
MSS	Manufacturer's Standardization Society of the Valve and Fittings Industry

B. All pipe, fitting, and valve sizes and all references to pipe diameter on the Drawings or in the Specifications are intended to be nominal size or diameter, and shall be interpreted as such.

1.04 SUBMITTALS

A. Submittals shall be in accordance with the General Conditions and Division 1 - General Requirements.

B. Submit the following:

1. Manufacturer's Certificate of Compliance certifying compliance with the applicable specifications and standards.
2. Shop drawings for valves appurtenances and pipe including performance data and physical characteristics for valves and with dimensioned layouts of piping.
3. Manufacturer's written installation instructions for valves.
4. Manufacturer's operation and maintenance material and manuals for valves and hydrants.
5. Bacteriological test results.
6. Hydrostatic pressure test results
7. Manufacturer's standard color samples for paint.

1.05 QUALITY ASSURANCE

A. Marking
Mark each pipe, fitting, and valve and hydrant in conformance with the applicable standard or specification.

B. Testing

1. Perform factory tests in accordance with the applicable specification or standard.
2. Perform field tests specified in this Section.

C. Disinfection

Disinfect both potable and reclaimed water utilities piping constructed under this Contract. Collect samples of water from the water piping after the piping has been disinfected. Submit the samples to the applicable regulatory agency for bacteriological analysis. Collection and submittal of these samples shall meet the requirements of the applicable regulatory agency.

1.06 DELIVERY, STORAGE, AND HANDLING

A. The Contractor shall be responsible for the delivery, storage, and handling of products.

B. Load and unload all pipe, fittings, and appurtenances by hoists or skidding. Do not drop products. Do not skid or roll products on or against other products. Use slings, hooks, and pipe tongs in such a manner that will prevent damage to products.

C. Keep stored products safe from damage or deterioration. Keep the interior of pipe, fittings, valves, and appurtenances free from dirt or foreign matter. Drain and store valves in a manner that will protect valves from damage. Store gaskets, plastic pipe and fittings, and other products which may be deteriorated by sunlight in a cool location out of direct sunlight. Keep gaskets out of contact with petroleum products.

D. Store valves and appurtenances in accordance with manufacturer's recommendations.

E. Do not stack ductile iron pipe higher than the limits shown in ANSI/AWWA C600. Stacking of polyvinyl chloride pipe shall be in accordance with the recommendations of the pipe manufacturer. Do not stack fittings, valves, or valve boxes.

F. Promptly remove damaged products from the job site. Replace damaged

products with undamaged products at no additional cost to the Owner.

PART 2- PRODUCTS

2.01 GENERAL

A. All pipe, fittings, valves, hydrants and appurtenances shall be as shown on the Drawings and specified in this Section. Except for adjustments, i.e. realignment and lowering existing mains in place, all pipe, fittings, valves, and appurtenances shall be new and unused.

2.02 BURIED PRESSURE PIPE AND FITTINGS

A. Ductile Iron Pipe and Fittings

1. Pipe
   a. Ductile iron pipe will be cement lined pressure Class 350 conforming to AWWA specification C151.
   b. Unless specifically noted or specified otherwise, pipe joints shall be push-on type conforming to ANSI/AWWAC111/A21.11. Restrained joints shall be American Fast-Grip Gasket for Fastite Joint Pipe, EBBA Iron Megalug for Mechanical Joint Pipe and fittings or approved equal.
   c. Mark each length of pipe with the pipe class, casting period, manufacturer's name or trade mark, and year of manufacture.
2. Fittings
   a. Fittings shall be ductile iron compact conforming to ANSI/AWWA C153/A21.53-94. Design and manufacture fittings for a pressure rating of 350 psi. Compact ductile iron fittings for pipe 16-inch or smaller shall conform to ANSI/AWWA C153/A21.53. All fittings will be wrapped with 8 mils polyethylene and sealed with tape.
   b. Fitting joints shall be mechanical joints conforming to ANSI/AWWA C 111/A21.11 or restrained push-on joints such Field Lok, as manufactured by U.S Pipe or approved equal. Restrained joints shall be used for all fittings unless otherwise indicated on the Plans. Pipe connecting to restrained joint fittings shall also have restrained joints as indicated on the Plans and specified in these Specifications. All fittings must be manufactured in the U.S.A.
   c. Fittings shall be marked to conform to the proper ANSI/AWWA standard.

3. Adapters
    a. Adapters from ductile iron pipe to victaulic or flange joint valves or fittings shall be cast iron or ductile iron conforming to ANSI/AWWA C110/A21.10. Design and manufacture adapters for a pressure rating of 150 psi.
    b. Adapter ends connecting to ductile iron pipe shall have plain ends, push-on joints, mechanical joints, or restrained push-on joints. Adapters with plain ends, push-on joints, or mechanical joints may be used where restrained joints are not required. Adapters shall have restrained push-on joints where restrained joint piping is required. Mechanical joints and push-on joints shall conform to ANSI /AWWA C111/A21.1l.
    c. Adapter ends connecting to victaulic or flange joint valves or fittings shall have joints complying with these Specifications for the applicable valves or fittings.
4. Lining and Coating
    a. The inside of all pipe, fittings, and adapters shall be lined with cement mortar lining and asphaltic seal coating conforming to ANSI/AWWA Cl04/A21.4. Coat the outside surfaces of all pipe, fittings, and adapters with asphaltic coating conforming to ANSI/AWWA C151/A21.51 or ANSI/ AWWA C110/A21.10 except for pipe installed above grade and exposed to view shall be factory shop primed and field painted with the following:
    b. Factory shop priming shall be per the manufacturer's recommendations for compatibility with Alkyd Coating finish, one coat Kop-Coat 622 LCF Primer 1.5 mil DFT, O.E., or approved equal.
    c. Field painting shall be of alkyd coating types suitable for protection of ferrous metals against moderately corrosive exterior environments, 2 coats Kop-Coat Rustarmor 500 speed, 1.5 mils DFT per coat min, O.E., or approved equal.
    d. Finish colors shall be as directed by the Engineer.
5. Gaskets
    a. Gasket for mechanical joints and push-on joints shall conform to ANSI/AWWA C111/A21.11.
6. Nuts and Bolts
    a. Nuts and bolts for mechanical joints shall be ASTM A242 Cor-Ten Steel or ASTM A276 Type 304 Stainless Steel tee head bolts and hexagon nuts conforming to ANSI/AWWA C111/A21.11.
    b. Nuts and bolts for restrained push-on joints shall be as recommended by the joint manufacturer.

7. Polyethylene Encasement
   a. Polyethylene encasement for ductile iron pipe, fittings, and adapters shall conform to ANSI/AWWA C105/A21.5. All DIP pipe and fittings are to be encased in 8 mils polyethylene and sealed with tape.

B. Service Pipe and Fittings

1. All service connections will be single connections. All services are to be same size type 'K' copper tubing per City specifications with 12 or 14 guage wire spiral wrapped around tubing and attached to Ford flare fittings. Taps in the pipe will be the same nominal diameter as the service line.

C. Couplings

1. Couplings for connecting ductile iron pipe shall be heavy weight design with heavy rolled steel follower, steel sleeve, and type 304 stainless steel bolts and nuts. Couplings shall be Rockwell No. 411, Romac Style 400 or an approved equal. Couplings shall be provided with stainless steel anchor studs for thrust restraint where noted on the Plans.

2. Transition couplings for connecting alternate materials (PVC to AC or DI, etc.) shall be AC-PVC&DIP Ford Ultra-Flex long sleeve wide range coupler style FC2W-12, as manufactured by Ford Meter Box Company, Inc. or an approved equal.

D. Tie-Lugs and Socket Clamps

1. Tie-Lugs shall be made from ductile iron for use in restraining mechanical joint valves, fittings, and pipes with althread rod. Tie-Lugs shall be made with a tensile strength of 80,000 psi and a yield strength of 60,000 psi. Socket clamps will be used for retaining underground pipe joints from separation. All socket clamps shall consist of two steel half clamps, two bolts and nuts and two cast iron washers. They shall be used with all thread-rod or Tie-Lugs for joint restraint. Tie-Lugs and Socket clamps shall be Trumbull Industries, Inc. or approved equal.

E. Pipe Identification and Location

1. All water main pipes, including fittings, shall be color coded or marked using blue as a predominant color to differentiate drinking water from reclaimed or other water. Underground metal pipe shall have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run

parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe.

2. The cost for the preceding identification and location procedures shall be included in the pipe's installation cost.

2.03 VALVES

A. Resilient Seat Gate Valves, 4 "- 16"

1. Resilient seat gate valves will have mechanical joint ends as manufactured by American Flow Control, Model AFC-2500; U.S. Pipe, Metroseal; Clow Corporation; or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 and C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be bonded or mechanically attached to the gate using stainless steel hardware and will be rated at a working pressure of 200 psi. The interior and exterior of the valve body will be fusion bonded epoxy coated in accordance with A WWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the smallest seat is not acceptable. Valves will be supplied with 2” square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction of flow. If the depth of the valve nut is greater than 48” below grade, or 30” below grade and under the water table, a valve extension system will be required. The extension will have a centering collar and be mechanically attached to the valve operating nut, such as extension manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Project Manager.

B. Tapping Valves

1. Tapping valves shall be resilient seated gate valves having mechanical joint ends and centering ring as manufactured by American Flow Control, Model AFC-2500; U.S. Pipe, Metroseal; Clow Corporation; or an approved equal and must conform to

ANSI/ AWWA C509 & C515. Valve gates, gate rings, and body-seat rings shall be oversized to permit entry and exit of tapping machine cutters. Exposed bolts and nuts shall be stainless steel.

2. Valve end connecting to tapping sleeve shall be flanged for bolting to the sleeve. The flange shall have a tongue conforming to MSS SP-60 to fit a recess in the sleeve. Flange dimensions and drilling shall conform to ANSI B 16. l. Nuts, bolts, and gaskets for flange joints shall conform to ANSI/AWWA C110/A21.10. Nuts and bolts shall be stainless steel. Gaskets shall be 1/8 inch thick, full face, red rubber. Valve end connecting to plain end of water pipe or adapter shall have mechanical joints. Mechanical joints and accessories shall conform to ANSI/AWWA C111/A21.11.

3. Tapping valves 14 inch and smaller shall be installed vertically. Tapping valves 16 inch and larger shall be installed horizontally and shall have bypass valves. Tapping valves installed horizontally shall have rollers and tracks. Valves 16 inch and larger shall have gear operators with enclosed gear cases suitable for buried service. Gear cases shall be extended type or totally enclosed type. Extended type gear cases shall have bolted side plates to cover stem and stuffing box.

C. Curb Stops

1. Buried valves 2-inch and smaller shall be curb stops. All curb stops shall be single service type where possible and one piece brass construction with locking provisions.

2. All curb stops 1" in size will be Ford flare fitting. Curb Stops must have locking wings and a swivel meter nut. Curb stops that are 1-1/2” and 2" will be flare-by-flange with locking wing, as manufactured by Ford Meter Box Company or an approved equal.

D. Corporation Stops

1. Corporation stops shall be of the ball or plug valve type and shall conform to ANSI/AWWA C800. The threads on the corporation shall be “cc” threads. The valve shall be watertight at any pressure up to 500 psi. The waterway shall be no smaller than the nominal size of the valve. Valves shall be designed for installation in mains under pressure using standard tapping machines. All corporation stops used shall be of the same size as the service line connections to the main. Bushings shall be brass or bronze

2. Corporation stops l" will be of brass and Ford flare fitting equal to Model No. F-600, as manufactured by Ford Meter Box Company or an approved equal. Corporation stops 1-1/2" and 2" will be of brass and Ford flare fitting equal to Model No. FB-600, as manufactured by Ford Meter Box Company or an approved equal.

E. Line Stops

1. Where indicated on the Plans, line stops shall be utilized to isolate portions of water mains. Line stops shall be completed while the water system is pressurized. Line stops shall consist of a line stop fitting, stopping plug/valve, blind flange for installation after stop is completed, and 1-inch equalization/purge fitting. Line stop fitting shall be fabricated steel with 12 mil (minimum) epoxy coating. Hardware and accessories shall be 304 stainless steel. Blind flange shall be ductile iron. A concrete encasement shall be poured for pipe support at the point of line stop. The contractor shall be responsible for all additional pipe restraining in the vicinity of the line stop for preventing pipe movement due to any unbalanced forces created by the line stop and subsequent cutting and removal of existing pipe adjacent to any line stop.

2.04 VALVE BOXES

A. Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by Trumbull or Tyler and must have 5-1/4” minimum inside diameter. Cast iron valve boxes will be consist of a circular cast iron top and bottom section. The depth must be determined and the appropriate valve box must be installed. No PVC is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot.

2.05 TAPPING SADDLES

A. Saddles on mains 4 " to l 6" shall be JCM 432 stainless steel with stainless steel hardware. Saddles on mains 24" to 48" in diameter will be fabricated steel with 0-ring seal, fusion bonded, epoxy coated with stainless steel nuts and bolts. The tapping valve must have centering ring and conform to Section 1065-4.8. l Resilient Seat Gate Valves in these Technical Special

Provisions.

B. Outlet flange shall be ANSI B16.l, 125 lb. standard. The straps and bolts shall be stainless steel. The saddle dimensions shall be such that the saddle will not leak when installed on cast iron, ductile iron, or polyvinyl chloride pipe with outside diameter shown in AWWA standards.

C. "Quick" taps will not be permitted.

D. Service saddles must be used for all connections to pipe. Saddles must be bronze as manufactured by Mueller Company, Ford Meter Box Company, Smith-Blair Company, or approved equal. The pipe sizes for these manufacturers are noted below:

1. MUELLER: For pipe sizes 4" to 12", for l" services, the single strap design must be used. For l-1/2" services, the double strap design must be used. Both designs are for the H-16000 series.
2. FORD: For pipe sizes 4" to 12", for l" services, the style 101B single strap design must be used. For 1-1/2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 1" and 1-1/2," services, the style 202B double strap design must be used.
3. SMITH-BLAIR: For pipe sizes 4" to 12", for 1" services, the 321 series single strap design must be used. For pipe sizes 4" and larger, for 1" and 1-1/2" services, the 323 series double strap design must be used.

2.06 FIRE HYDRANTS

A. Fire hydrants shall be manufactured to meet or exceed AWW A C-502, latest revision, and shall comply with Factory Mutual Research Corporation and Underwriters' Laboratories UL 246 Standard. Hydrants must have bronze-to-bronze main seat threading surfaces. The fire hydrant will be traffic type with drain holes plugged at the factory.

B. Allowable fire hydrant models are limited to:

1. American Flow Control B-84-B 6"

2. B-84-B-5 (5-1/4" MVO), American Darling Valve and Manufacturing Company

3. Model No. A-423 Super Centurion 250 (5-1/4" MVO), Mueller Company

4. Clow Medallion 2545 (5-1/4" MVO), Clow Valve Company

C. All hydrants shall be painted at the factory with NSF approved fusion bonded epoxy coating, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow.

D. Hydrants shall be designed for 250 PSI working pressure, and tested to 500 PSI hydrostatic pressure.

E. The main valve closure shall be of the compression type, opening against the pressure and closing with the pressure. Traffic feature to be designed so that the nozzle section can be rotated 360 degrees during field installations, if necessary.

F. The main valve opening shall not be less than 5-114 inches and be designed so that the removal of seat, drain valve mechanism, internal rod and all working parts can be removed through top of hydrant. These parts shall be removable without disturbing the ground line joint or the nozzle section of the hydrant.

G. The operating nut, main stem, coupling, and main valve assembly shall be capable of withstanding an input torque of 200 ft/lb in both the opening and closing directions. There shall be an internal top housing with 0-ring(s) to seal operating threads from the waterway.

H. Hydrant bonnet assembly shall be provided with a grease reservoir and lubrication system that automatically circulates lubricant to all operating threads each time the hydrant is operated.

I. Hydrant shall be a three-way type with one 4 *12* inch pumper nozzle and two 2 *12* inch hose nozzles, each having National Standard Threads.

J. Hydrant shoe, lower barrel and upper barrel shall be cast in ductile iron or cast iron material. All bolts for the internal and external assembly shall be 304 stainless steel.

K. For added protection against corrosion, the hydrant shoe (interior and exterior), upper valve top, and hydrant valve bottom shall have a coating of fusion bonded epoxy.

L. Friction loss shall not exceed 2.0 psig at 1000 GPM through the 4 *12* inch pumper nozzle.

M. Finish grade is to be established and the proper length hydrant installed by the Contractor prior to acceptance by the City.

N. All nozzles shall be a minimum of 18" and a maximum of 24" above finished grade.

O. A mechanical joint hydrant connection shall be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on the plain end branch.

P. The contractor shall not install risers or make repairs to hydrants.

Q. At final inspection, if it is determined that a fire hydrant has been modified, the hydrant shall be removed by the contractor and the proper length hydrant shall be installed by the contractor at the contractor's or developer's expense.

2.07 BLOW-OFF ASSEMBLY

A. A blow-off shall consist of mechanical or flanged joint ductile iron tee, a flanged resilient seat gate valve and the blow off assembly. All joints to be restrained. A concrete thrust collar shall be installed centered on the DIP.

B. Blow off assemblies include 2" brass pipe, threaded fittings, 2" brass ball valve, and plastic meter box (purple for reuse). The plastic meter box is to be installed at grade over the ball valve. The ball valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blow offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Water Standard Details Sheet. A reuse tag will be installed on reuse main blow offs in a reuse meter box.

2.08 METER BOX

A. The meter box will be furnished and installed by the Contractor. For 3/4" to l" services, meter boxes shall be the Carson Industries model 1419 - 12" Standard or approved equal. For l-1/2" to 2" services, meter boxes shall be the Carson Industries model 1419 - 18" Standard or approved equal. Automated Meter Reading (AMR) Neptune meter and Watts Double Check Backflow Assemblies will be furnished by the City and retrofitted on every single family residential site. Commercial and Multi-family Reduced Pressure Backflow Assemblies and their appropriate size and type AMR Neptune Meter will be furnished by the City. All meters and backflow assemblies in asphalt or concrete must be installed in traffic rated meter box.

2.09 WIRE

A. A UF#14 locator wire will be installed on all potable water, reclaimed water, and sewer mains. The wire must be placed on the top of the pipe with at least one wrap around each section of pipe. A run of wire must run

from the main to each hydrant. Each fire hydrant must have one wrap of the wire around the barrel located at final grade. The wire coating color shall be blue (water), green (sewer), and purple (reuse).

PART 3- EXECUTION

3.01 INSPECTION

A. The quality of all materials, the process of manufacture, and the finished products shall be subject to inspection and approval by the Owner. Such inspections may be made at the place of manufacture or on the work after delivery, or at both places; and the products shall be subject to rejection at any time on account of failure to meet any requirements of these specifications, even SR A 1A CI Water Main Pipe Replacement though sample products may have been accepted as satisfactory at the place of manufacture.

B. Prior to being installed, each pipe, fitting, and valve, shall be carefully inspected. Remove damaged or unsuitable products from the job site at once and replace with undamaged and suitable products.

3.02 LAYING WATER MAINS

A. Laying of ductile iron piping shall conform to ANSI/AWWA C600 unless otherwise specified in these Specifications. The Contractor shall provide proper implements, tools, and facilities for the safe and expeditious prosecution of the work.

B. The Contractor shall provide proper implements, tools, and facilities for the safe and expeditious prosecution of the work.

C. Every pipe, fitting, and valve shalt be cleaned of all debris, dirt, and other foreign matter before being laid and shall be kept clean until accepted in the complete work.

D. Lay and maintain pipe to the lines shown on the Plans, except as otherwise specified in this Article. Lay and maintain pipe to the grade shown on the Drawings or to the minimum depth specified in this Article. Install fittings, valves, hydrants, and service connections in the locations shown on the Plans.

E. Where the piping is to be constructed parallel to and close to existing buried utilities, the exact location of which is unknown, adjust the alignment of the piping to least interfere with these utilities, unless otherwise specifically shown or specified.

F. Piping shall be laid with the following separations in accordance with Florida Department of Environmental Protection (FDEP) regulation:

1. Potable water piping shall be laid at least three (3) feet horizontally from any existing or shown storm sewer, stormwater force main, or pipeline conveying unrestricted public access reclaimed water as measured from edge of pipe to edge of pipe.

2. Potable water piping shall be laid at least three (3), and preferably ten (10), feet horizontally from any existing or shown vacuum-type sanitary sewer, as measured from centerline to centerline of the pipes.
3. Potable water piping shall be laid at least six (6), and preferably ten (10), feet horizontally from any existing or shown gravity- or pressure sanitary sewer, wastewater force main, or pip sanitary sewer, wastewater forcemain, or pipeline conveying unrestricted public access reclaimed water as measured from centerline to centerline of the pipes.
4. Reclaimed water piping shall be laid at least five (5) feet horizontally from any existing or shown sanitary sewer, sanitary force main or storm sewer, as measured from edge of pipe to edge of pipe.
5. Potable water piping crossing existing or shown gravity- or vacuum-type sanitary sewer or storm sewer shall be laid to provide a minimum vertical distance of 6-inches, preferably 12-inches, above or at least 12-inches below between the outside of the water pipe and the outside of the sewer or force main pipe.
6. Potable water piping crossing existing or shown pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water shall be laid to provide a minimum vertical distance of 12-inches between the outside of the water pipe and the outside of the sewer or force main pipe.
7. Reclaimed water piping crossing existing or shown sanitary sewers, sanitary force mains, potable water mains, or storm sewer shall be laid to provide a minimum vertical distance of 18-inches between the outside of the water pipe and the outside of the sewer or force main pipe. This separation shall apply whether the water pipe crosses over (preferred) or under the sewer, force main or water pipe.
8. Lay water piping at crossings of sanitary sewers and force mains so a full length of pipe is centered on the crossed sanitary pipe.
9. No water piping shall pass through or contact any part of a sanitary sewer manhole.

G. Lay pressure piping to a depth so that not less than 36" or more than 42" of cover is provided over all pipes unless otherwise noted in the Plans. Cover

shall be measured as the vertical distance from the top of the pipe to the finish grade elevation.

H. Do not lay pipe in water or when the trench or weather conditions are unsuitable for proper installation.

I. Lower pipe, fittings, and valves into the trench by hand, by means of hoists or ropes, or by other suitable tools or equipment which will not damage products, coatings, or linings. Do not drop or dump pipe, fittings, or valves into the trench.

J. Deflection of pressure pipe from a straight line or grade shall not exceed 75% of the manufacturer's recommended limits. If the alignment requires joint deflections in excess of the allowable deflection per joint, furnish and install fittings or a sufficient number of shorter lengths of pipe.

K. Provide thrust restraint at horizontal and vertical deflection fittings and at tees, plugs, tapping sleeves, and tapping saddles.

L. Open excavations shall be satisfactorily protected at all times. At the end of each day's work, the open ends of all pipes shall be protected against the entrance of animals, earth, or debris by bulkheads or stoppers. Bulkheads or stoppers shall be perforated to allow passage of water into the installed pipeline to prevent flotation of pipeline.

M. Prevent foreign matter from entering pipe while it is being installed. Do not place debris, tools, clothing, or other material in the pipe. Close the open ends of pipe by watertight plugs when pipe laying is not in progress. Remove any earth or other material that enters pipe or appurtenances through any open pipe end. Remove earth and other materials at no additional cost.

3.03 PIPE BEDDING, HAUNCHING AND BACKFILLING

A. Pipe bedding, haunching and back.filling shall be as specified under Section 02220.

3.04 JOINTING

A. Ductile Iron Push-on Joints

1. Remove lumps, blisters, and excess bituminous coating from the bell and spigot end of each pipe. Wire brush the outside of each spigot and inside of each bell. Wipe the outside of each spigot and inside of each bell clean of all dirt, oil, grease, and other foreign matter. Wipe the outside of each spigot and inside of each bell dry.

Wipe each gasket clean of all dirt, dust, and other foreign material.

2. Seat a gasket in the bell of the receiving pipe. Thoroughly lubricate the spigot end of the pipe being installed using the lubricant furnished by the pipe manufacturer. Center the spigot end of the pipe being installed in the bell of the receiving pipe. Support the pipe being installed so it is jointed along the centerline of the receiving pipe. Push or pull the pipe being installed home. After jointing, check the gasket to ensure it has not been pushed out of its seat and is uniformly compressed around the pipe.
3. Assemble restrained push-on joints in accordance with the instruction of the joint manufacturer.
4. Deflect piping after jointing, if deflection is required. The amount of deflection shall not exceed 75% of the maximum deflection recommended by the manufacturer.

B. Mechanical Joints

1. Remove Jumps, blisters, and excess bituminous coating from the bell and spigot end of each iron pipe, fitting, and valve. Wire brush the outside of each iron pipe or fitting spigot and inside of each bell. Wipe each bell, spigot, and ring gland clean of all dirt, oil, grease, and other foreign matter. Wipe each bell, spigot, and ring gland dry. Wipe each gasket clean of all dirt, dust, and other foreign matter.
2. Brush each spigot and gasket with soapy water. Slip a ring gland followed by a gasket over the spigot. Center the end of the pipe, fitting, or valve being installed on the end of the receiving pipe, fitting, or valve. Support the pipe, fitting, or valve being installed so it is jointed along the centerline of the receiving pipe, fitting, or valve. Push or pull the pipe, fitting, or valve being installed home. Move the gland into position against the face of the gasket. Loosely assemble the joint bolts and nuts. Evenly tighten the nuts using a torque wrench. Tightening procedures and torque range shall comply with the recommendations of Appendix A, ANSI/AWWA C 111IA2 l.l1.
3. Deflect pipe, fittings, or valves after jointing, if deflection is required. The amount of deflection shall not exceed 75% of the maximum deflection recommended by the manufacturer.

C. Flange Joints

1. Remove antirust coating from machined surfaces. Clean joint surfaces of the pipe, fittings, and valves being joined. Wipe surfaces clean of all dirt, oil, grease, and other foreign matter. Wipe surfaces dry. Wipe each gasket clean of all dirt, dust, and other foreign matter.
2. Align the flange of the pipe, fitting, or valve being installed with the

flange of the receiving pipe, fitting, or valve. Support the pipe, fittings, and valves being joined so the flanges are properly aligned. Lubricate bolts and nuts with graphite and oil mixture prior to installation of bolts and nuts. Install gasket between the flanges. Loosely assemble bolts and nuts. Check gasket to ensure it is in its proper position. Evenly tighten bolts and nuts. Tighten bolts and nuts so the joint will not leak. Do not over torque bolts and nuts.

3.05 SETTING VALVES AND VALVE BOXES

A. Clean the interiors of valves of foreign matter before installation. Tighten stuffing boxes. Inspect valves and hydrants in opened and closed positions to ensure all parts are in working condition.

B. Set valves and valve boxes plumb. Center valve boxes on the valves or valve operators. Locate valves outside the area of roads and streets where feasible. Tamp back.ft II around each valve box to a distance of 4 feet on all sides of the box or to the undisturbed trench face if less than 4 feet.

C. After valve installation and backfilling is completed, center a concrete collar, reinforced as shown on the Plans, on the valve box.

3.06 CONNECTING TO EXISTING MAINS

A. The Contractor shall locate existing mains horizontally and vertically and verify the exact size of existing mains sufficiently in advance of making connections to allow ample time for making changes in the connection location and size if required. Backfill excavation immediately after main is located and measured.

B. Make each wet connection with a tapping valve and tapping sleeve or tapping saddle. Use tapping sleeves unless otherwise shown on the Plans or specified. install and hydrostatically test each tapping valve and tapping sleeve or tapping saddle assembly prior to tapping existing water main. Open and close tapping valves and inspect each tapping valve in both open and closed positions to ensure all parts are in working condition prior to tapping existing water main. Inspect each tapping valve immediately before connecting tapping machine to ensure the tapping valve is open. Install watertight plug on the tapping valve outlet and backfill excavation if existing water main is not tapped within 48 hours after installing tapping valve and tapping sleeve or tapping saddle assembly. Install watertight plug on the tapping valve outlet and backfill excavation if new water main is not connected to tapping valve within 48 hours after making tap in existing water main.

C. Exercise extreme care when performing any work on the existing system to

prevent damage thereto or undue interruption to the existing service. Any damage to the existing system caused by the work shall be immediately repaired (or replaced in kind) by and at the expense of the Contractor and to the satisfaction of the Owner.

D. Should existing cement asbestos piping be encountered, wet taps by means of tapping valves and tapping sleeves or saddle assemblies will not be permitted. Dry taps using sleeves, cutting in tees, fittings, etc., shall be made to connect to existing cement asbestos water mains.

E. The connection work shall include all necessary cutting and fitting of the existing mains, measurement for installation of the new pipe, fittings, wyes, sleeves, tees, crosses, plugs, bends, and reducers as required to make a complete connection.

F. The connection work shall include uncovering and restraining of the existing mains to the restraining lengths indicated in the contract Plans, measurement for installation of the new restraints, fittings, sleeves, and plugs as required to make a complete connection.

G. The Contractor must have at least three (3) years of current pipe tapping or line stopping experience. Prior to tapping or line stopping the existing main, the Contractor shall submit documentation of such experience to the Engineer for approval. Contractor to use approved City of Cocoa tapping contractor.

3.07 RESTRAINING AND SUPPORTS

A. Thrust Blocking

1. Concrete thrust blocks shall be prohibited unless specifically approved by the Engineer. Pipe shall be restrained by restrained joints as shown in the Plans and specified in these Technical Specifications unless otherwise shown in the Water Standard Details.

2. Construct thrust blocks of concrete having a 28 day compressive strength of not less than 2,500 psi. Lubricate fitting surfaces to prevent bonding between fittings and thrust blocks. Construct thrust blocks between fittings to be restrained and undisturbed soil. The area of thrust blocking bearing on undisturbed soil shall not be less than the area determined by the Engineer. Concrete thrust collars shall be used for connections to existing piping as shown on the Plans

B. Restrained Joint Piping

1. Restrained joint piping shall be as specified in these Technical Special Provisions. Distance from fitting to end of restraint shall not be less than that indicated on the Plans. The first section of pipe connected by restrained joint to a fitting shall not be less than 18 feet in length unless a shorter length is required by the piping arrangement shown on the Plans. This section includes existing pipe restraining to cut and plug existing mains.

C. Pipe Supports

1. Furnish and install supports required to hold pipe, fittings, and valves at the lines and grade indicated on the Plans and without strain upon pipe, fittings, or valves. Support exposed piping by suitable saddle stands, concrete piers, or hangers. Locate supports where necessary and not less than 8 feet on center.

3.08 FILLING OF WATER MAINS

1. Newly constructed water mains are to be filled utilizing a 2" temporary jumper as shown on the Water Standard Details of the Plans. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a water meter and a backflow preventer (double check) will be installed. The backflow preventer will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from F.D.E.P. and the Engineer. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Engineer.

3.09 HYDROSTATIC TESTING

A. Hydrostatic Tests shall be performed on all water mains and all services installed. The Contractor shall schedule each test with the Engineer. Each test shall be performed on the day mutually agreed upon and in the presence of the Engineer.

B. The Contractor shall furnish all equipment, temporary piping, pumps, fittings, gauges, and operating personnel necessary to conduct the tests. Water for testing may be obtained from the Owner, however, the Contractor shall pay for all metered water used.

C. Mains may be tested in sections between valves when intermediary valves

are present in the main to be tested. Each section to be tested shall be complete, and thrust blocks shall have been in place for not less than l 0 days prior to performance of the tests. All restrained joint pipe and fittings shall be completely backfilled to produce the required restraint prior to performance of the tests.

D. Before applying the specified test pressure, all air shall be expelled from the pipe. If blow-offs are not available, the Contractor shall make the necessary taps at points of highest elevation before the test is made and plug the taps after the test has been completed.

E. Any exposed pipe, fittings, valves, and joints shall be carefully examined during the test. All joints showing visible leaks shall be repaired. Any cracked or defective pipe, fittings, or valves discovered as a result of the pressure test shall be removed and replaced by the Contractor with sound material, and the test shall be repeated until satisfactory results are at1ained.

F. Testing shall be performed to current A WW A C-600 and A WW A C-605 standards and the following requirements: pressure tests on mains shall be conducted at a static pressure of one hundred fifty pounds per square inch (150 psi) over a period of not less than two (2) hours. Test pressure shall not vary by more than ±5 psi for the duration of the test for the test to be considered successful.

G. Allowable Leakage

1. A leakage test at 150 psi will be performed on all newly installed sections of pipe after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Pipe Size (in.)	Allowable Leakage (Gal/hr)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.06
14	1.16
16	l.32

2. Test Failure:

If the actual leakage exceeds the allowable, locate the leak and correct the work and repeat the test.

3.10 FLUSHING

A. The potable water mains and reclaimed water mains shall be swabbed prior to disinfection. A foam swab shall be flushed through the new mains. The Contractor shall submit for approval, to the Engineer, a swabbing plan for each section of main that has been installed. Flush mains with a flushing velocity of not less than 2.5 feet per second. Following are flows required to provide a flushing velocity of 2.5 feet per second:

Pipe Size	Inside Diameter	Flow at Velocity of 2.5 feet 12er Second
6"	6"	220 gpm
8"	8"	390 gpm
10"	10"	620 gpm
12"	12"	880 gpm
14"	14"	1,200 gpm
16"	16"	1,600 gpm
20"	20"	2,500 gpm
24"	24"	3,600 gpm
30"	30"	5,500 gpm

B. Flush water mains until the water discharged is clear.

3.11 DISINFECTION

A. Disinfection shall meet all requirements of AWWA C651 Latest Edition and of regulatory agency requirements, as applicable, if more stringent than these Specifications. Contractor to pay special attention to special construction notes on the plans and the FDEP Permit for disinfection of pipes.

B. Disinfect all new and repaired water mains in accordance with AWWA Standard C651 prior to placing them into service. Disinfect pipe, fittings and valves with a chlorine solution containing 50 mg/±5 mg/1 of available chlorine. The Contractor shall bacteriologically test the system in locations designated by the regulatory agency having jurisdiction.

C. The chlorinating material shall be chlorine gas, calcium hypochlorite, or sodium hypochlorite. Calcium hypochlorite shall have 70 percent available chlorine by weight. Sodium hypochlorite shall have 5.25 percent to 14.7 percent available chlorine. Placing chlorine tablets in the mains during construction is not an acceptable method of disinfection. The following table lists the quantity of chlorine or hypochlorite required to produce 50 mg/l of available chlorine per 100 feet of pipe.

Pounds				Ounces			Quarts	
Pipe Size	Inside Dia.	Chl. Gas	Cal. Hycl (70%)	Cal. Hycl (70%)	Sod. Hycl (14.7%)	Sod. Hycl (5.25%)	Sod. Hycl (14.7%)	Sod. Hycl (5.25%)
4”	4”	0.027	0.039	0.62	3.0	8.3	00.93	.026
6"	6"	0.061	0.087	1.4	6.7	19.0	0.21	0.58
8"	8"	0.11	0.16	2.5	12.0	33.0	0.37	1.0
10"	10"	0.17	0.24	3.9	19.0	52.0	0.58	1.6
12"	12"	0.24	0.35	5.6	27.0	75.0	0.83	2.3
14"	14"	0.33	0.48	7.6	36.0	100.0	1.1	3.2
16"	16"	0.44	0.62	10.	47.0	130.0	1.5	4.1
18”	18”	0.55	0.79	13.0	60.	170.0	1.9	5.2
20"	20"	0.68	0.97	16.0	74.0	210.0	2.3	6.5
24"	24"	0.98	1.39	22.0	108.0	306.0	3.3	9.4
30"	30"	1.52	2.17	34.0	169.0	473.0	5.1	14.7

D. Disinfection shall be accomplished in accordance with ANSI/AWWA C651. The chlorinating material shall be introduced into water lines and distribution system in a manner approved by the Engineer. All valves in lines being disinfected shall be opened and closed several times during the contact period.

E. The preferred point of application of the disinfecting mixture shall be at the beginning of the pipe line extension or any valved section of it and through a corporation stop inserted by the Contractor. Water from the existing system shall be controlled to flow slowly into the newly laid pipeline during the application of chlorine. Treated water shall remain in the pipeline for not less than 24 hours. After the treated water has been retained for the required time, the chlorine residual at the pipe extremities shall be at least 10 mg/1. Open and close valves several times during the contract period. Following the contact period, flush the mains with potable water until the chlorine residual is 1.0 mg/1 or less. Surface discharge of chlorinated water is not allowed.

F. The Contractor shall have water mains tested for bacteriological quality after disinfection and final flushing. Bacteriological testing shall meet the requirements of the applicable regulatory agency. Disinfection shall be repeated if the piping is not bacteriologically acceptable. The cost of any repeat disinfection shall be borne by the Contractor.

G. If necessary, repeat disinfection, flushing, and testing until bacteriological quality of the water to be delivered through the system is satisfactory to the applicable regulatory agency. The Contractor shall submit a copy of all bacteriological test results to the Owner for record purposes.

H. Bacteriological samples shall be collected and analyzed by a private lab certified by NELAC and licensed by the State of Florida Department of Health. The private lab or sampling company assumes the chain of custody for collecting and transporting the samples to the Jab.

I. The time for disinfection, bacteriological testing, and obtaining approval of the water main for service shall be included in the contract time.

3.12 RELOCATION AND RECONNECTION OF METERS

A. The contractor shall hire a licensed plumber to relocate and reconnect the meters to the customers piping. The contractor's plumber shall supply all labor and materials necessary to accomplish the relocation and reconnection. The meter relocation and reconnection shall be done under the direct supervision of the Engineer and a representative from the City of Cocoa Utilities Department.

3.13 COMPLETION SCHEDULING

A. Complete mains as they are installed. Test, flush, disinfect when applicable, and place in service each part of the main which is complete and can be placed in service without preventing work to continue on uncompleted parts of the new mains. Do not place mains in service until receiving written clearance from FDEP.

3.14 RECORD DRAWINGS

A. The Contractor shall provide complete and accurate certified as-built drawings within ten (10) days of pipeline construction.

****END OF SECTION ****

SECTION 02665

STEEL CASING PIPE/BORING & JACKING

PART 1- PRODUCTS

1.01 SCOPE OF WORK

A. The Contractor shall furnish all labor, tools, materials and incidentals necessary to install steel casing pipe by the boring and jacking or open trench method. The Contractor shall be responsible for conforming with the detailed requirements of this Section and the requirements of the entities having jurisdiction over the bore and jack crossings.

1.02 GENERAL

A. J&B is a method for installing a product (often called a casing) that may serve as a direct conduit for liquids or gases, or as a duct for carrier (pipe, cable, or wire line products). It is a multi-stage process consisting of constructing a temporary horizontal jacking platform and a starting alignment track in an entrance pit at a desired elevation. The product is then jacked by manual control along the starting alignment track with simultaneous excavation of the soil being accomplished by a rotating cutting head in the leading edge of the product's annular space. The ground up soil (spoil) is transported back to the entrance pit by helical wow1d auger flights rotating inside the product. J&B typically provides limited tracking and steering as well as limited support to excavation face.

B. Removal and disposition of excess material varies, is the responsibility of the boring contractor and is not covered under this Specification. However, the cost of removal or final disposition is included in the cost of J&B operation.

C. No J &B conduit may be left open ended without approval of the Engineer to prevent the conduit from acting as a drainage structure.

1.03 RELATED WORK

A. Excavation, Backfilling, and Compaction is included in Section 02220.

1.04 SUBMITTALS

A. Action Submittals:

1. Casing pipe material including the standard to which it is

manufactured, outside diameter, wall thickness, and joint configuration.
2. Details of casing spacers, including recommended spacing.
3. Method to avoid flotation of pipe when grouting annular space.
4. Details of end seals.
5. Joint reinforcement details for jacked concrete pipe.
6. Boring and jacking plan.
7. Means and method of dewatering.

B. Information Submittals:

1. Preconstruction Survey.
2. Physical and chemical properties of steel casing pipe.
3. Jacking and receiving shaft/pit design drawings.
4. Estimated jacking forces.
5. Plans for grade correction.
6. Written logs of daily measurements of horizontal and vertical movement of surface features.
7. Written logs of daily measurements of horizontal and vertical location of casing.
8. Documentation that contractor performing the Work in this section has experience required below. Documentation includes resume of jack and bore site supervisor and at least three references of similar projects completed, including location, length, and size of bore, contact name and contact phone number.

C. Submittals for facilities requiring structural design shall be signed and stamped by a professional civil or structural Engineer currently registered in the State of Florida.

D. Furnish a Bore Path Report to the Engineer within 14 days of the completion of each bore path. Submit the As-Built-Plans to the Engineer within 30 calendar days. No payment will be made for directional boring work until the Bore Path Report has been delivered to the Department. Include the following information in the report:

1. Location of project and financial project number including the Permit Number when assigned.

2. Name of person collecting data, including title, position and company name.

3. Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way).

4. Identification of the detection method used.

5. Spoils removal log.

6. As-built placement plans showing roadway plan and profile, cross-section, boring location and subsurface conditions as defined in Bore Path Plans below. Reference tl1e shown plan elevations to a Department Bench Mark when associated with a Department project, otherwise to a USGS grid system and datum or to the top of an existing Department head wall. These plans must be the same scale in black ink on white paper, of the same size and weight and as the Contract plans. Submittal of electronic plans data in lieu of hard copy plans may be approved by the Engineer if compatible with the Department software.

E. Provide the Engineer with a complete set of As-Built-Plans showing all bores (successful and failed) within 30 calendar days of completion of the work. Plans must be dimensionally correct copies of the Contract plans. Include notes on the plans stating the final bore path diameter, facility diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the facility or facility placed out of service. If the facility is a casing, note this, as well as the size and type of carrier pipes to be placed within the casing as part of the Contract work. Produce the plans as follows:

1. On the Contract plan view, show the centerline location of each facility, installed or installed and placed out of service to accuracy within I inch at the ends and other points physically observed. They show the remainder of the horizontal alignment of the centerline of each facility installed or installed and placed out of service and note the accuracy with which the installation was monitored.

2. As directed by the Engineer, provide either a profile plan for each bore path, or a cross-section of the roadway at a station specified by the Engineer, or a roadway centerline profile. Also show the ground or pavement surface and the crown elevation of each facility installed, or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed. Show the remainder of the vertical alignment of each crown facility installed, or installed and placed out of service and note the accuracy with which the installation was monitored. On profile plans for bore paths crossing the roadway, show the contract plans stationing. On the profile plans for bore paths paralleling the roadway show the contract plans stationing. If the profile plan for the bore path is not made on a copy of one of the contract profile or cross-section sheets, use a I 0 to I vertical exaggeration.

3. If a bore path is not completed, show on the plans the failed bore

path along with the name of the utility owner and the final bore path. Note the failed bore path as "Failed Bore Path." Also show the location and length of the cutting head and any product not removed from the bore path.

4. Show the crown elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during subsoil investigation or the installation, show the type of material, horizontal and vertical location, top elevation and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

1.05 QUALIFICATIONS

A. Bore and jack operations shall be performed by a qualified Contractor with at least 5 years experience involving work of a similar nature under similar conditions.

PART 2- PRODUCTS

2.01 STEEL CASING PIPES

A. Steel casings shall conform to the requirements of ASTM Designation A 139 (straight seam pipe only) Grade "B" with a minimum yield strength of 35,000 psi. Unless otherwise shown on the Drawings, the casing pipes shall have the minimum nominal diameter and wall thickness as shown on the following table:

Carrier Pipe Nominal Diameter	Casing Outside Diameter	Casting Wall Thickness
4”	14"	.250"
6"	16"	.250"
8"	18"	.250"
10"	20"	.250"
12"	22"	.250"
14"	24"	.250"
16"	28"	.312"
l8"	30"	.312"

B. Field and shop welds of the casing pipes shall conform with the American Welding Society (AWS) standard specifications. Field welds shall be complete penetration, single-bevel groove type joints. Welds shall be airtight and continuous over the entire circumference of the pipe and shall not increase the outside pipe diameter by more than 3/4-inch.

C. All casing pipe to be installed may be inspected at the site of manufacture for compliance with these Specifications by an independent laboratory selected and paid for by the Owner. The manufacture's cooperation shall be required in these inspections.

D. All casing pipe shall be subjected to a careful inspection prior to being installed. If the pipe fails to meet the specifications it shall be removed and replaced with a satisfactory replacement at no additional expense to the Owner.

E. The size of the steel casing must be at least 6 inches larger than the largest outside diameter of the carrier.

F. The casing pipe must be straight seam pipe or seamless pipe.

G. All steel pipe may be bare inside and out, with the manufacturer's recommended minimum nominal wall thicknesses to meet the greater of either installation, loading or carrier requirements.

H. All steel casing pipe must be square cut and have dead-even lengths which are compatible with the J&B equipment.

I. Use steel pipe casings and welds meeting or exceeding the thickness requirements to achieve the service life requirements noted in the FDOT Drainage Manual Chapter 6. For purposes of determining service life, ensure that casings installed under roadways meet or exceed cross drain requirements and casings under driveways meet or exceed side drain pipe requirements. For purposes of material classification, consider steel pipe casing structural plate steel pipe. Ensure that steel pipe casing of insufficient length achieves the required length through fully welded joints. Ensure that joints are air-tight and continuous over the entire circumference of the pipe with a bead equal to or exceeding the minimum of either that required to meet the thickness criteria of the pipe wall for jacking and loading or service life. A qualified welder must perform all welding.

2.02 CARRIER PIPES

A. All carrier pipes within casings shall be restrained joint ductile iron pipe.

B. Carrier pipes shall be supported within the casing pipes so that the pipe bells do not rest directly on the casing. The load of the carrier pipes shall be distributed along the casing by casing spacers. Casing spacers shall be bolt on style split shells made of either T-304 stainless steel or fusion coated steel with a minimum 0.010" thick coating of PVC provided over the entire band. The shell shall be lined with a PVC liner 0.090" thick with 85-90 Durometer hardness. All nuts and bolts shall be high strength, low alloy meeting A WWA C1 1 1. Runners shall be made of a high molecular weight polymer with inherent high abrasion resistance and a low coefficient of friction.

2.03 PIPE COUPLINGS AND JOINTS

A. In order to minimize potential for bore failure, couplings must not project at right angles from the casing diameter by more than ¾ inch.

B. Welds must comply with 2.01 (H) when couplings are not used or when the coupling thickness is less than the casing thickness.

C. When couplings are used the casing joint needs only to be tack welded. Couplings must have a full bead weld such that the thickness, when measured at an angle of 45 degrees to the casing and coupling interface, must be no less than the casing thickness.

PART 3- EXECUTION

3.01 INSTALLATION OF CASING PIPES

A. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipe or coatings. Pipe shall not be dropped. All pipe shall be examined before laying, and no piece shall be installed which is found to be defective. Any damage to the pipe or coatings shall be repaired to the satisfaction of the Owner.

B. Excavation adjacent to the roads shall be performed in a manner to adequately support the roads. Bracing, shoring, sheeting or other supports shall be installed as needed. The Contractor shall install suitable reaction blocks for the jacks as required. Jacking operations shall be continuous and precautions shall be taken to avoid interruptions which might cause the casing to "freeze" in place. Upon completion of jacking operations, the reaction blocks, braces, and all other associated construction materials shall be completely (removed from the site.

C. Dewatering through casings during construction shall not be permitted. All dewatering methods shall be approved by the Owner before construction work begins. In areas where high groundwater creates difficulties in

dewatering, the Contractor may have to seal off boring & jacking pits with sheeting.

D. It shall be the Contractor's responsibility to perform the boring and jacking work in strict conformance with the requirements of the agency in whose right of way or easement the work is being performed. Any special requirements of the agency such as insurance, flagmen, etc., shall be strictly adhered to during the performance of work. The special requirements shall be performed by the Contractor at no additional cost to the Owner.

E. Correct line and grade shall be carefully maintained. Casings for sanitary gravity sewers shall be installed at the specified slope of the carrier pipe with an allowance for casing spacers. Earth within the casing shall not be removed too close to the cutting edge in order to prevent the formation of voids outside the casing. If voids are formed, they shall be satisfactorily filled with grout by pumping.

F. The sections of steel casing shall be field welded in accordance with the applicable portions of AWW A C206 and AWS D7.0 for field welded pipe joints. The Contractor shall wire brush the welded joints and paint with Kop-Coat 622 LCF Primer 1.5 MDFT, or approved equal. After completion of jacking, the Contractor shall clean the interior of the casing of all excess material.

G. The annular space between the carrier pipe and casing shall be filled with clean sand if required by the agency having jurisdiction over the crossing. Masonry plugs are to be installed at each open end of the casing. Plugs shall be suitable for restraining the earth load while allowing drainage of the casing.

H. Provide continuous pressure to the face of the excavation to balance groundwater and earth pressures. Ensure that shafts are of sufficient size to accommodate equipment, the pipe selected and to allow for safe working practices. Provide entry and exit seals at shaft walls to prevent inflows of groundwater, soil, slurry and lubricants. Use thrust blocks designed to distribute loads in a uniform manner so that any deflection of the thrust block is uniform and does not impart excessive loads on the shaft itself or cause the jacking frame to become misaligned. The jacking system must have the capability of pushing the pipe in J&B operations through the ground in a controlled manner and be compatible with the anticipated jacking loads and pipe capacity. Monitor the jacking force applied to the pipe and do not exceed the pipe manufacturers recommendations. Ensure that the pipe lubrication system is functional at all times and sufficient to reduce jacking loads. Use pipe lubrication systems that include a mixing tank, holding tank and pumps to convey lubricant from the holding tank to application points at the rear of the MTBM. Maintain sufficient fluids on

site to avoid loss of lubrication. Power Distribution System must be identified in the plans package or permit provisions as well as any noise constraints. Identify spoil removal capability and method to avoid creating hindrance to other activities which may be necessary in the area.

I. Monitor the pumping rate, pressures, viscosity and density of the boring fluids to ensure adequate removal of soil cuttings and the stability of the borehole. Contain excess drilling fluids, slurry and soil cuttings at entry and exit points in pits until they are recycled or removed from the site. Ensure that all boring fluids are disposed of or recycled in a manner acceptable to the appropriate local, state or federal regulatory agencies. When jacking and boring in suspected contaminated ground, test the boring fluid for contamination and dispose of appropriately. Remove any excess material upon completion of the bore. If it becomes evident that the soil is contaminated, contact the Engineer immediately. Do not continue boring without the Engineer's approval.

J. If an obstruction is encountered which prevents completion of the installation in accordance with the design location and specifications; the pipe may be taken out of service and left in place at the discretion of the Engineer. Immediately fill the product left in place with excavatable flowable fill. Submit a new installation procedure and revised plans to the Engineer for approval before resuming work at another location. If damage is observed to any property, cease all work until a plan of action to minimize further damage and restore damaged property is submitted and approved by the Engineer.

3.02 CONSTRUCTION SITE REQUIREMENTS

A. **The Americans with Disabilities Act:** When and where installations temporarily disrupt pedestrian use of sidewalk areas for periods exceeding two consecutive work days provide an alternate route that meets ADA requirements.

B. **Site Conditions:**

1. Unless approved by the Engineer, sump pits are required to contain auger fluids if vacuum devices are not operated throughout the boring operation.

2. Within 48 hours of completing installation of the boring product, ensure that the work site is cleaned of all excess auger fluids or spoils. Removal and final disposition of excess fluids or spoils is the responsibility of the boring Contractor and ensure that the work site is restored to pre-construction conditions or as identified on the plans.

3. Restore excavated areas in accordance with the specifications and FDOT Design Standards.

4. Provide MOT in accordance with the FDOT Design Standards and the MUTCD when and where the former is silent.

5. Ensure that equipment does not impede visibility of the roadway user without taking the necessary precautions of proper signing and Maintenance of Traffic Operations.

C. Investigate all sites for possibility of having to manage groundwater problems that may occur due to seasonal changes or natural conditions. When ground water level must be controlled, use a system and equipment that is compatible with the properties, characteristics, and behavior of the soils as indicated by the soil investigation report.

D. Take responsibility for restoring any damage caused by heaving, settlement, separation of pavement, escaping boring fluid (fracout) of the J&B operation at no cost to the Department. When required by the Engineer, provide detailed plans which show how damage to any roadway facility will be remedied. These details will become part of the As-Built Plans Package. Remediation Plans must follow the same guidelines for development and presentation of the As-Built Plans. When remediation plans are required, they must be approved by the Engineer before any work proceeds.

PART 4- QUALITY CONTROL

4.01 GENERAL

A. Take control of the operation at all times. Have a representative who is thoroughly knowledgeable of the equipment, boring, and Department procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations. Notify the Engineer 48 hours in advance of starting work. Do not begin the installation until the Engineer is present at the job site and agrees that proper preparations have been made.

4.02 CONSTRUCTION PROCESS AND APPROVAL

For all installations, submit sufficient information to establish the proposed strategy for providing the following:

A. An indication of where the leading edge of the casing is located with respect to line and grade and the intervals for checking line and grade. Indication may be provided by using a water gauge (Dutch level) or electronic

transmitting and receiving devices. Other methods must have prior approval. Maintain a record of the progress at the job site.

B. Equipment of adequate size and capability to install the product and including the equipment manufacturer's information for all power equipment used in the installation.

C. A means for controlling line and grade.

D. A means for centering the cutting head inside the borehole.

E. Provide a means for preventing voids by assuring:

1. The rear of the cutting head from advancing in front of the leading edge of the casing by more than 1/3 times the casing diameter and in stable cohesive conditions not to exceed 8 inches.
2. In unstable conditions, such as granular soil, loose or flowable materials, the cutting head is retracted into the casing a distance that permits a balance between pushing pressure, pipe advancement and soil conditions.
3. Development of and maintaining a log of the volume of spoil material removal relative to the advancement of the casing.

F. Adequate casing lubrication with a bentonite slurry or other approved technique.

G. An adequate band around the leading edge of the casing to provide extra strength in loose unstable materials when the cutting head has been retracted into the casing to reduce skin friction as well as provides a method for the slurry lubricant to coat the outside of the casing.

H. At least 20 feet of full diameter auger at the leading end of the casing. Subsequent auger size may be reduced, but the reduced auger diameter must be at least 75% of the full auger diameter.

I. Water to be injected inside the casing to facilitate spoil removal. The point of injection shall be no closer than 2 feet from the leading edge of the casing.

4.03 TESTING

A. When there is any indication that the installed product has sustained damage and may leak, stop the work, notify the Engineer and investigate damage. The Engineer may require a pressure test and reserves the right to be present during the test. Perform pressure test within 24 hours unless otherwise approved by the Engineer. Furnish a copy of the test results to the Engineer for review and approval. The Engineer shall be allowed up to 72 hours to approve or determine if the product installation is not in compliance with

specifications. The Engineer may require non-compliant installations to be filled with excavatable flowable fill.

B. Testing may consist of one of the following methods but must always meet or exceed FDOT testing requirements. Follow the Product Manufacturer's pressure testing recommendations. Ensure that the product carrier pipes installed without a casing meet the pressure requirements set by the owner. If the owner does not require pressure testing, the Engineer may require at least one test.

i. FDOT requires a water tight pipe and joint configuration where the product is installed beneath any pavement (including sidewalk) and front shoulders. The Engineer will determine when and where water tight joint requirements shall be applied to the ultimate roadway section for future widening. When under the pavement conduct an air pressure test for leaks in the presence of the Engineer at a minimum test pressure of 20 PSI by either of the following methods; standard 24 hour pressure test with a recording chart or, a dragnet type leak detector or equivalent device capable of detecting pressure drops of 1 /2 PSI for a time period recommended by the manufacturer.

ii. When a product is not located under the pavement, the pipe and joint configuration must meet or exceed soil tight joint requirements. The test for a soil tight joint allows up to 0.1 gallon of water leakage at a sustained pressure of 2 PSI. The water tight joint criteria allow no leakage at all for sustained pressures of 5 PSI. Conduct test for joint integrity for one hour.

4.04 PRODUCT LOCATING AND TRACKING

A. Install all facilities such that their location can be readily determined by electronic designation after installation. For nonconductive installations, attach a minimum of two separate and continuous conductive tracking (tone wire) materials, either externally, internally, or integral with the product. Use either a continuous green sheathed solid conductor copper wire line (minimum #12 AWG for external placement or minimum# 14 AWG for internal placement in the conduit/casing) or a coated conductive tape. Ensure that conductors are located on opposite sides when installed externally. Connect any break in the conductor line before construction with an electrical clamp or solder, and coat the connection with a rubber or plastic insulator to maintain the integrity of the connection from corrosion. Clamp connections must be made of brass or copper and of the butt end type with wires secured by compression. Soldered connections must be made by tight spiral winding of each wire around the other with a finished length minimum of 3 inches overlap. Tracking conductors must extend 2 feet

beyond bore termini. Conductors must be tested for continuity. Identify each conductor that passes by removing the last 6 inches of the sheath. No deductions are allowed for failed tracking conductors. Failed conductor ends must be wound into a small coil and left attached for future use.

4.05 AUGERING FLUIDS

A. Use a mixture of bentonite day or other approved stabilizing agent mixed with potable water with a minimum pH of 6.0 to create the drilling fluid for lubrication and soil stabilization. Vary the fluid viscosity to best fit the soil conditions encountered. Do not use other chemicals or polymer surfactant in the drilling fluid without written consent of the Engineer. Certify in writing to the Engineer that any chemicals to be added are environmentally safe and not harmful or corrosive to the facility. Identify the source of water for mixing the drilling fluid. Approvals and permits are required for obtaining water from such sources as streams, rivers, ponds or fire hydrants. Any water source used other than potable water may require a pH Test.

4.06 FAILED BORE PATH

A. If conditions warrant removal of any materials installed in a failed bore path, as determined by the Engineer, it will be at no cost to the Owner. Promptly fill all voids by injecting all taken out of service products that have any annular space with excavatable flowable fill.

**** END OF SECTION****

SECTION 02750

REMOVAL, PLUGGING, AND ABANDONMENT OF EXISTING WATER AND WASTEWATER UTILITIES

PART 1- GENERAL

1.01 DESCRIPTION

A. Work addressed under this Section includes pipe removal and grouting (in filling) sections of existing potable water, reclaimed water, sanitary force main, and gravity sewer pipe for placing out of service. The limits of pipe to be removed or grouted shall be as shown on the Drawings or as directed in the field by the Owner.

1.02 SCOPE OF WORK

A. The Contractor shall furnish all labor, equipment and materials necessary to perform all the work associated with the complete removal and disposal, or placement out of service by injection of cementitious grout, of existing water and wastewater piping, within the limits shown on the Drawings or as directed in the field by the Owner.

B. Unless specifically shown to be salvaged, or at the request of the Owner, all pipe, valves, fittings, and appurtenances associated with the portions of the existing water and wastewater utilities which are to be removed shall be disposed of off-site by the Contractor. Disposal shall be in accordance with all applicable local, State and Federal regulations. The cost of disposal shall be borne by the Contractor.

C. This project contains asbestos cement pipe that is to be abandoned and grouted in place by the contractor. The contractor shall perform asbestos cement pipe removal as described in Part 1.03 of this specification section.

D. The Contractor shall be responsible for removing and disposing of all water and wastewater from utilities to be removed or abandoned under this Contract in accordance with all regulatory agency requirements and federal, state and local laws.

1.03 ASBESTOS PIPE REMOVAL AND DISPOSAL PROCEDURES

A. General - The Contractor will be responsible for permitting, removal and disposal of asbestos-cement (A-C) pipe. The following paragraphs briefly summarize permitting, field procedures and disposal activities related to the A-C pipe. In these discussions, certain local, state and federal laws have been referenced. The Contractor must comply with all applicable local, state

and federal laws/regulations whether or not such laws/regulations are referenced in these specifications.

The Contractor shall provide evidence of experience of proper procedures in removal, handling and disposal of asbestos-cement pipe materials within the past five (5) years. References from at least three completed projects shall be provided at the Preconstruction Conference. If the Contractor proposes to utilize the services of a duly qualified subcontractor for this portion of the work, these same requirements shall be met.

B. Permitting - The Contractor shall apply for and obtain all permits related to removal of the A-C pipe. In accordance with Rule 17-257.30 I of the Florida Department of Environmental Protection (FDEP), the Contractor must submit a "Notice of Asbestos Removal Project" form with a copy to the Engineer. The Contractor will submit the form to FDEP in a timely manner in accordance with the schedule contained in Rule 17-257. The agencies that may require permits for this project are not necessarily limited to the FDEP.

C. Field Procedures - The Contractor is responsible for all procedures, including safety and health procedures, which will be used when handling A-C pipe. The Contractor's handling of A-C pipe shall be in conformance with 29 CFR 1926.58 (OSHA Safety and Health Standards).

Cutting of A-C pipe shall be done in conformance with the recommended practices contained in the American Water Works Association's (AWWA) Manual No. M-16. Cutting methods should be used which minimize the production of airborne dust.

D. Preparation of Transport of Materials - The Contractor will remove the pipe from the ground in whole pieces without fracturing, breaking or otherwise damaging pipe. The A-C pipe shall be carefully loaded onto the transport vehicle without damaging the pipe. The transport vehicle shall totally enclose the A-C pipe so that wind and rain cannot disperse dust from the pipe material. Transport of the A-C pipe shall also meet the requirements of the waste disposal agency.

E. Waste Disposal - As stated in Rule 17-701.520(4), the FDEP indicates that asbestos containing waste materials can be accepted at a permitted Class I, II or III landfill. The regulations also indicate that the waste generator (the Contractor) shall make arrangements with the landfill operator before disposal of the asbestos containing waste materials and inform the operator of the quantity of the waste and the scheduled date the shipment will arrive at the landfill. The Contractor shall provide the Engineer and the City of Cocoa a manifest immediately following disposal.

1.04 RELATED WORK

A. Excavation, trenching, and backfilling are included in Section 02220.

1.05 SUBMITTALS

A. The Contractor shall submit grout mixture data and the results from grout mixture tests to the Owner for approval prior to performing grouting operations.

PART 2- PRODUCTS

2.01 MATERIALS

A. The following is a suggested trial grout mixture for a one (1) cubic yard yield, however, the actual grout mixture to be used shall meet all of the requirements specified below:

Cement:	500 pounds
Fly Ash:	500 pounds
Water:	350 pounds (42 gallons)
Sand:	2,248 pounds
Darex (W.R. Grace):	3 ounces (Air Entrainment Additive or equivalent)
Bentonite:	6 pounds (to be mixed with sufficient water in colloidal mixture and added at the job site)

B. The mixture used for grouting shall be of a creamy consistency. Samples of the grout mixture when set aside in a standard concrete test mold shall show less than one percent of the mixture height of free water on the surface after standing not less than 12 hours.

C. One set of three (3) 3" X 6" sample test cylinders shall be made for each mix preparation. The minimum 28-day strength shall be no less than 1000 psi. The required slump is 5 inches. The maximum allowable slump is 9 inches. Slump should be as low as practical to maintain viscosity, proper "flow", and still retain ability to pump.

PART 3 - EXECUTION

3.01 PIPE REMOVAL

A. Where existing utilities pipes are designated for removal on the Drawings, the Contractor shall remove and dispose of such utilities and all related pipe, valves, fittings, manholes, and appurtenances with the limits shown. After removal of the facilities all trenches shall be backfilled in accordance with

Section 02220. The cost of disposal of the removed materials shall be borne by the Contractor.

B. Utilities shown to be salvaged and/or if salvaging is requested by the owner, shall be carefully disassembled, removed and delivered to the Owner on-site. The Owner may direct the pipes to be reinstalled elsewhere on this project or they may be removed and stockpiled at a location to be determined.

C. The Contractor shall exercise care not to damage utilities to be removed and salvaged.

3.02 IN-PLACE GROUTING OF EXISTING PIPE

A. Where water and wastewater utility pipes are to be abandoned in place they shall be filled with a sand/cement grout as specified herein.

B. Grout shall be injected within the pipe sections indicated on the Drawings. The ends of these sections shall be capped and/or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections shown on the Drawings to prevent the potential for future collapse.

C. The pump used for grouting should be a continuous flow, positive displacement model with a pugmill type mixing vat having a minimum shaft speed of 60 rpm and incorporated as an integral part of the equipment. Alternate equipment may be used subject to the approval of the Owner. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

D. The Contractor shall provide standpipes and/or additional means of visual inspections as required by the Owner to determine if adequate grout material has filled the entire pipe section(s). The Contractor shall make necessary provisions for the Owner's representative to monitor all grouting operations.

E. All pipe to be abandoned shall be capped or plugged with a fitting or material that will prevent soil or other material from entering the pipe. All caps and plugs shall be subject to approval by the Owner.

3.03 MONITORING

A. The Owner's representative may stop the removal and/or grouting operations at any time, if in his judgment, the operation does not comply with these Specifications or if the work is not to his satisfaction.

B. The Owner's representative shall make all measurements of pipe length

removed and grout quantity pumped, and maintain records of each day's operations. The quantities recorded by the Owner's representative shall be considered final.

****END OF SECTION****

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1- GENERAL

1.01 SUMMARY

A. This Section covers the work necessary to furnish and place plain and reinforced concrete and do related work necessary to complete work shown or specified.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this specification to the extent required by the references thereto. Latest revisions will apply, unless otherwise shown or specified.

B. American Concrete Institute (ACI) Standards

ACI 211.1	Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete
ACI 304	Guide for Measuring, Mixing, Transporting, and Placing Concrete
ACI 305	Hot Weather Concreting
ACI 306	Cold Weather Concreting
ACI 308	Standard Practice for Curing Concrete
ACI 347	Recommended Practice for Concrete Formwork
ACI SP-66	ACI Detailing Manual

C. American Society for Testing and Materials (ASTM) Standards

ASTM A185	Specification for Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement
ASTM A615	Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement

ASTM C31	Methods of Making and Curing Concrete Test Specimens in the Field
ASTM C33	Specification for Concrete Aggregates
ASTM C94	Specification for Ready-Mixed Concrete
ASTM C143	Test Method for Slump of Portland Cement Concrete
ASTM Cl50	Specification for Portland Cement
ASTM CI73	Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C260	Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C494	Specification for Chemical Admixtures for Concrete
ASTM C6l8	Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
ASTM C881	Specification for Epoxy-Resin-Base Bonding Systems for Concrete
ASTM D994	Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)
ASTM D1190	Specification for Concrete Joint Sealer, Hot Poured Elastic Type
ASTM D1752	Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction

1.03 SUBMITTALS

A. Submittals will be as specified in the General Conditions and Section 01340, Shop Drawings, Product Data and Samples.

B. Submit the following:

1. Manufacturer's Certificate of Compliance certifying compliance with the applicable specifications and standards.
2. Certified copies of test reports of concrete mixes required by the applicable standards.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. The Contractor will be responsible for the delivery, storage, and handling of products.

B. Promptly remove damaged or unsuitable products from the job site. Replace damaged products with undamaged products. Replace unsuitable products with suitable products.

1.05 JOB CONDITIONS

A. Follow methods outlined in ACI 306 if concrete is to be placed when the atmospheric temperature is expected to be less than 40 degrees F.

B. Calcium chloride will not be considered for approval as an accelerating admixture during cold weather construction.

C. Follow methods outlined in ACI 305 if concrete is to be placed when the atmospheric temperature is expected to exceed 90 degrees F.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Cement

Cement will be Portland cement con fanning to ASTM C 150. Cement will be Type l for normal use, Type 1A where air-entrainment is desired, or Type III or Type IIIA where high early strength is desired and authorized by the Engineer.

B. Aggregate

Fine and coarse aggregates will conform to ASTM C33. Aggregate will be crushed limestone with a maximum size of 3/4 inch.

C. Water

Water will be potable, clean, and free from injurious amounts of oils, acids, alkalis, organic materials, or other substances that may be deleterious to concrete or steel. A maximum of 500 mg/l of chloride ion may be present

in the water.

D. Admixtures

1. Air-entraining admixtures will conform to ASTM C260.
2. Water-reducing and retarding admixtures will conform to ASTM C494, Type A or Type D, except that they will contain no chlorides, will be non-toxic after 30 days, and will be compatible with the air-entraining admixtures. The amount of admixture added to the concrete will be in accordance with the manufacturer's requirements. Furnish a compliance statement that the admixture used satisfies all requirements of this specification.

E. Reinforcement

1. Reinforcing steel will conform to ASTM A615, Grade 60.
2. Welded wire fabric or wire mesh will conform to ASTM Al85.

F. Joint Filler

1. Preformed expansion joint filler will be asphalt filler for unsealed expansion or isolation joints in sidewalks, driveways and elsewhere as indicated on the Drawings. Filler will conform to ASTM D994 and will be sealtight asphalt expansion joint filler, as manufactured by W. R. Meadows, Inc., Elgin, Illinois, or Engineer approved equal.

G. Curing Compounds

1. Curing compounds will conform to ASTM C309, Type I.

2.02 CONCRETE

A. General

1. Concrete will be Class A or B as specified in this Article. All concrete will be Class A, unless specifically excepted.
2. The slump of all concrete will be not more than 4 inches or less than l inch unless specifically excepted by the Owner.
3. The air content by volume of all concrete will be from 3% to 6%.
4. Class A concrete will contain a water-reducing and retarding admixture, unless specifically excepted. Use of a water-reducing and retarding admixture in Class B concrete is optional.
5. Do not exceed the water-cement ratio of the design mix which includes all water added.
6. The water reducing and retarding admixture will be in accordance with the manufacturer's requirements.

B. Class A Concrete

1. Class A concrete will be structural concrete with a 28-day compressive strength of 4,000 psi.
2. Proportion Class A concrete in accordance with ACI 211.1.

C. Class B Concrete

1. Class B concrete will be plain concrete with a 28-day compressive strength of 2,000 psi.
2. Proportion Class B concrete in accordance with ACI 211.l.

PART 3 - EXECUTION

3.01 SUBGRADE PREPARATION

A. Subgrade will be free of sawdust, debris, water, extraneous oil, mortar, or any other substances that may be deleterious to the concrete.

B. Earth surfaces will be firm, damp, and unyielding.

C. Do not place Class A concrete on mud, dried earth, or uncompacted fill. Mud mats of Class B concrete will be permitted upon written approval of the Owner.

D. When Class A concrete is to be placed on highly pervious materials which might allow flowing groundwater to damage fresh concrete, the contact surface will be covered with a layer of asphalt-impregnated building paper or polyvinyl sheeting prior to placement of the concrete.

3.02 FORM WORK

A. All form work will be in accordance with recommended practices contained in ACT 347.

B. Forms will be of wood, plywood, steel) or other approved materials and will be mortar-tight.

C. Construct forms and associated false work so finished concrete conforms to the dimensions and contours shown on the Drawings.

D. Form surfaces will be smooth and free from holes, dents, sags, or other irregularities.

E. Coat forms with a non-staining oil before setting them in place.

F. Metal ties or anchorages within the forms will be equipped with cones, she-bolts, or other devices that permit their removal to a depth of at least 1 inch without injury to the concrete.

G. Remove forms in a manner and at such time to ensure complete safety of the structure. Do not remove supporting forms or shoring until sufficient strength has been developed in the concrete to support weight and load.

3.03 REINFORCING STEEL

A. Reinforcement will be free from excessive amounts of scale, rust, form oil, or any other coating that will reduce bond.

B. Cut and bend reinforcement in accordance with ACI SP-66.

C. Bar supports will conform to ACI SP-66.

D. Any dowel, lap or splice required will be the minimum allowable Class C tension splice according to ACI 318, based on Grade 60 steel reinforcing and 4,000 psi 28- day concrete.

E. A mat of steel will be considered as two layers of reinforcing bars forming a grid.

F. When one mat of steel is to be placed in a wall or slab, place the mat in the center of the section w1less specifically excepted. When two mats of steel are to be placed in a wall or slab, place one mat in each face of the section utilizing the minimum allowable clear distance per ACI 318, unless specifically excepted.

3.04 CONCRETE

A. General

Measure and mix concrete in accordance with ACI 304.

B. Class A Concrete

1. No measurable amount of water will pass through structural concrete when a head of water of equal to 12 inches of depth per inch of concrete is applied.
2. Use one brand of cement only in concrete which will have exposed surfaces.

C. Class B Concrete

Construct thrust blocks of Class B concrete. Construct mud mats of Class B concrete, unless otherwise approved.

D. Ready-Mixed Concrete

1. Mix, deliver, and place ready-mixed concrete in accordance with ASTM C94.
2. Discharge concrete from a truck within l -1/2 hours after water has been added to the mix in the truck.
3. The delivery ticket will contain the cubic yards in the load, the percent of air, the total number of pounds of cement in the load, and the total gallons of water in the load. Copy of delivery ticket will be given to the Owner's representative.
4. Water may be added upon arrival at the job site if the water-cement ratio after the addition of the water does not exceed the water-cement ratio of the applicable design mix. When water is added at the job site, mix for a minimum of 1½ minutes for each cubic yard remaining in the truck before discharging.

E. Site-Mixed Concrete

1. Thoroughly mix site-mixed concrete in an approved type batch mixer having a capacity of not less than 112 cubic yard. The volume of the mixed batch will not exceed the manufacturer's rated capacity of the mixer.
2. The mixing time for each batch, after addition of water to cement and aggregate, will not be less than 1-1/2 minutes for each I cubic yard of materials. Operate the mixing drum at the speed for which it was designed, provided the speed is more than 14 rpm and less than 20 rpm.

3.05 PLACING CONCRETE

A. Place concrete in accordance with ACI 304. Provide chutes, drop pipes, and other placing equipment properly designed and appropriate for the intended use to prevent segregation of coarse aggregate.

B. Remove construction debris and extraneous mat1er from within the forms.

C. Remove temporary struts, stays, bracing, and blocks serving to hold the forms in correct shape and alignment until concrete is placed.

D. Place concrete on clean, damp surfaces, free from running or standing water.

E. Deposit concrete in approximately horizontal layers, not to exceed 18 inches.

F. Consolidate concrete by means of mechanical vibrating. Insert and remove vibrators vertically at regular intervals to ensure uniform consolidation. Do not use vibrators to transport concrete inside the forms. Internal vibrators will maintain a speed of not less than 7,000 impulses per minute when in operation. At least one standby vibrator will be on hand at the location of concrete placement at all times during placing.

3.06 CURING

A. Prevent concrete from drying for a period of 7 days after it is placed.

B. Curing may be accomplished by any of the approved methods as listed in ACI 308.

3.07 FINISHING

A. All concrete surfaces will be true and even, and will be free from open or rough spaces, depressions, or projections.

3.08 TESTING

A. The Owner will pay for the services of an independent testing laboratory to sample and test concrete. The Contractor will cooperate with the testing laboratory. Also, the Contractor will give the Owner 48-hours notice prior to a scheduled concrete pour in order to allow the Owner to schedule the work of the testing laboratory.

****END OF SECTION****

APPENDIX

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERAL PERMITS

FLORIDA DEPARTMENT OF Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD, SUITE 232
ORLANDO FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Interim Secretary

Notification of Acceptance of Use of a General Permit

Permittee:
Katherine D. Ennis, Deputy Director
City of Cocoa Utility Department
351 Sherer Boulevard
Cocoa, FL 32922
kennis@cocoafl.org

Permit Number: 0124889-1130-DSGP
Issue date: December 7, 2021
Expiration Date: December 6, 2026
County: Brevard
Project Name: Friday Road Utilities Improvements
Water Supplier: City of Cocoa
PWS ID: 3050223
PWS Type: Community

Dear Ms. Ennis:

On December 6, 2021, the Florida Department of Environmental Protection received a "*Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs*" [DEP Form No. 62-555.900(7)], under the provisions of Rule 62-4.530 and Chapter 62-555, Florida Administrative Code (F.A.C.). The proposed project includes the construction of approximately 1,702 linear feet of 12-inch PVC water main and 1,521 linear feet of 14-inch HDPE water main with fittings, valves and appurtenances to provide improved utilities service to existing and future residents. The project is located at the intersection of James Road and extending north to Osage Street in Cocoa.

Based upon the submitted Notice and accompanying documentation, this correspondence is being sent to advise that the Department does not object to the use of such general permit at this time. Please be advised that the permittee is required to abide by Rule 62-555.405, F.A.C., all applicable rules in Chapters 62-4, 62-550, 62-555, F.A.C., and the General Conditions for All General Drinking Water Permits (found in 62-4.540, F.A.C.).

The permittee shall comply with all sampling requirements specific to this project. These requirements are attached for review and implementation.

Pursuant to Rule 62-555.345, F.A.C., the permittee shall submit a certification of construction completion [DEP Form No. 62-555.900(9)] to the Department and obtain approval, or clearance, from the Department before placing any water main extension constructed under this general permit into operation for any purpose other than disinfection or testing for leaks.

Within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service in total by the Department, both the permittee and the proposed permittee shall sign and submit an application for transfer of the permit using Form 62-

555.900(8), F.A.C., with the appropriate fee. The permitted construction is not authorized past the 30-day period unless the permit has been transferred.

This permit will expire five years from the date of issuance. If the project has been started and not completed by that time, a new permit must be obtained before the expiration date in order to continue work on the project, per Rule 62-4.030, F.A.C.

Sincerely,

Javed Mayet

Javed Mayet, P.E.
Engineering Specialist
Permitting and Waste Cleanup

Cc: Joseph W. Mayer, P.E., DRMP, Inc [jmayer@drmp.com]
Javed Mayet, Reggie Phillips, Jill Farris, Viviana Useche, FDEP

CLEARANCE REQUIREMENTS

Requirements for clearance upon completion of projects are as follows:

1) **Clearance Form**
Submission of a fully completed Department of Environmental Protection (DEP) Form 62-555.900(9) *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components into Operation* and a copy of this general permit notification.

2) **Record Drawings, if deviations were made**
Submission of the portion of record drawings showing deviations from the DEP construction permit, including preliminary design report or drawings and specifications, if there are any deviations from said permit (Note that it is necessary to submit a copy of only the portion of record drawings showing deviations and not a complete set of record drawings.).

3) **Bacteriological Results**
Copies of satisfactory bacteriological analysis (a.k.a. Main Clearance), taken within sixty (60) days of completion of construction, from locations within the distribution system or water main extension to be cleared, in accordance with Rules 62-555.315(6), 62-555.340, and 62-555.330, F.A.C. and American Water Works Association (AWWA) Standard C 651-92, as follows:
   - The proposed main at all points of connection to the existing main
   - At all terminal ends of the proposed water mains.
   - On straight run of pipes between two isolation valves. The maximum interval between two sampling locations shall be 1,200 ft. Per section 5.1.3 Sampling procedure of AWWA 651, no hydrants shall be used for sampling.
   - Beginning and end of lines for each segment to be partially completed.

   Each location shall be sampled on two consecutive days, with sample points and chlorine residual readings clearly indicated on the report. **A sketch or description of all bacteriological sampling locations must also be provided.**

You may submit the entire clearance document package in electronic format to DEP_CD@dep.state.fl.us. If the file is very large, you may post it to the Water Electronic Submittal folder on the Central District's ftp site at:
ftp://ftp.dep.state.fl.us/pub/incoming/Central_District/Water%20Electronic%20Applications.

After posting the document, send an e-mail to DEP_CD@dep.state.fl.us, alerting us that it has been posted.

Any submitted drawings (should be sized 11" x 17") and the engineer of record's signed seal and dates on the required document must be legible for acceptance.

Forms: http://www.dep.state.fl.us/water/drinkingwater/forms.htm

As an alternative to submitting the requests to place Potable Water System components into operation, the permittee may submit a request for clearance on the DEP Business Portal. Use of the Business Portal often results in shorter processing time. Permittees with frequent requests may find this function beneficial. Electronic Requests for PWS Component certification may be made at https://www.fldepportal.com/DepPortal/go/submit-registration.

For further clarification contact: Javed Mayet,
Suite 232
3319 Maguire Boulevard,
Orlando, Florida 32803-3767
(407) 897-4128

FLORIDA DEPARTMENT OF Environmental Protection

Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

In the Matter of an
Application for Permit by:

PERMITTEE:
Mr. John "Jack" Walsh, P.E.
Utilities Director
City of Cocoa Utilities Department
351 Shearer Blvd.
Cocoa, Florida, 32922
jwalsh@cocoafl.org, kennis@cocoafl.org

PERMIT NUMBER: 0430675-001-DWC/CM
ISSUANCE DATE: February 24, 2023
EXPIRATION DATE: February 23, 2028
COUNTY: Brevard
PROJECT NAME: Friday Road Utilities Improvements
WASTEWATER TREATMENT: Jerry Sellers Water Reclamation Facility
FACILITY ID: FL0021521

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 0430675-001-DWC/CM to construct a domestic wastewater collection/transmission system, issued pursuant to Section 403.087(1), Florida Statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until a subsequent order of the Department. Because the administrative hearing process is designed to formulate final agency action, the subsequent order may modify or take a different position than this action.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first.

You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver may not apply to persons who have not received a clear point of entry.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Allison Chancy
Environmental Manager
Permitting and Waste Cleanup Program

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

Copies furnished to:
Angie O'Brien, DRMP, aobrien@drmp.com
Juan Gonzalez, PE, DRMP, Jgonzalez@drmp.com
FDEP: William Craig, Allison Chancy Cothran, Charles LeGros

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Caitlin Hawley
Clerk

February 24, 2023
Date

FLORIDA DEPARTMENT OF
Environmental Protection

Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

STATE OF FLORIDA
DOMESTIC WASTEWATER COLLECTION/TRANSMISSION INDIVIDUAL PERMIT

PERMITTEE:
Mr. John "Jack" Walsh, P.E.
Utilities Director
City of Cocoa Utilities Department
351 Shearer Blvd.
Cocoa, Florida, 32922
jwalsh@cocoafl.org, kennis@cocoafl.org

PERMIT NUMBER: 0430675-001-DWC/CM
ISSUANCE DATE: February 24, 2023
EXPIRATION DATE: February 23, 2028
COUNTY: Brevard
PROJECT NAME: Friday Road Utilities Improvements
WASTEWATER TREATMENT: Jerry Sellers Water Reclamation Facility
FACILITY ID: FL0021521

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4 and 62-604, Florida Administrative Code (F.A.C.).

The above-named permittee is hereby authorized to construct the facilities shown on the application and other documents on file with the Department and made a part hereof and specifically described as follows:

DESCRIPTION OF PROJECT:

Construction of a sewage collection/transmission system serving a collection/transmission system extension generating no additional flow.

The sewage collection/transmission system shall consist of: A) 430 linear feet of 8-inch PVC force main, B) 830 linear feet of 10-inch HDPE force main, C) 60 linear feet of 8-inch DIP force main, and D) 435 linear feet of 8-inch steel force main with all necessary valves fittings and appurtenances.

LOCATION OF PROJECT:

This project is located along Friday Road, Osage Street and Angelica Street in Brevard County, Florida.

IN ACCORDANCE WITH: The limitations, requirements and other conditions set forth in pages 1 through 3 of this permit.

PROJECT NAME: Friday Road Utilities Improvements
PERMIT NUMBER: 0430675-001-DWC/CM

PERMIT CONDITIONS:

1. This permit is subject to the general conditions of Rule 62-4.160, F.A.C., as applicable. This rule is available at the Department's Internet site at: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-4 [62-4.160]

2. This permit is for the "Dryline" collection/transmission mains only. No wet connections shall be made without the separate prior written approval and flow allocations by DEP and the Utility.

3. Upon completion of construction of the collection/transmission system project, and before placing the facilities into operation for any purpose other than testing for leaks or testing equipment operation, the permittee shall obtain clearance from the Department. This clearance may be obtained expeditiously using the Department's Business Portal at http://www.fldepportal.com/go/ (via "Submit" then "Registration/Notification" and "Submit Notifications to FDEP". The submission is for "Division of Water Resource Management Domestic/Industrial Wastewater" and the submittal type is "Request for Approval to Place a Domestic Wastewater Collection/Transmission System into Operation").

For further clarification contact:
William Craig, 407-897- 4329
3319 Maguire Blvd, Suite 232
Orlando, Florida 32803-3767

4. New or modified collection/transmission facilities can be placed into operation 3 days after Form 62-604.300(3)(b), (adopted and incorporated by reference in paragraph 62-604.300(3)(b), F.A.C., effective October 4, 2021, http://www.flrules.org/Gateway/reference.asp?No=Ref-13560), is submitted and received by the Department or delegated local program, provided no substantial deviations are noted on Form 62-604.300(3)(b) and the Department or delegated local program does not notify the permittee of public health or environmental concerns regarding placing the facilities into operation.

   When substantial deviations are noted on Form 62-604.300(3)(b), (adopted and incorporated by reference in paragraph 62-604.300(3)(b), F.A.C., effective October 4, 2021), http://www.flrules.org/Gateway/reference.asp?No=Ref-13560), new or modified collection/transmission facilities can be placed into operation 10 days after Form 62-604.300(3)(b) is submitted unless the Department or delegated local program notifies the permittee of public health or environmental concerns regarding placing the facilities into operation. [62-604.700(3) and (4)]

5. Permit revisions shall only be made in accordance with Rule 62-4.050(4)(s), F.A.C. Request for revisions shall be made to the Department in writing and shall include the appropriate fee. Revisions not covered under Rule 62-4.050(4)(s), F.A.C., shall require a new permit. [62-604.600(8)]

6. Abnormal events shall be reported to the Department's Central District Office in accordance with Rule 62-604.550, F.A.C. For unauthorized spills of wastewater in excess of 1000 gallons per incident, or where information indicates that public health or the environment may be endangered, oral reports shall be provided to the STATE WATCH OFFICE TOLL FREE NUMBER, (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee or other designee becomes aware of the circumstances. Unauthorized releases or spills less than 1000 gallons per incident are to be reported orally to the Department's Central District Office within 24 hours from the time the permittee, or other designee becomes aware of the circumstances. The written submission may be provided electronically using the Department's Business Portal at http://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification"). [62-604.550]

Executed in Orlando, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Allison Chancy Cothran
Environmental Manager
Permitting and Waste Cleanup Program

DATE: February 24, 2023

FLORIDA DEPARTMENT OF TRANSPORTATION UTILITY PERMIT

FLORIDA DEPARTMENT OF TRANSPORTATION

UTILITY PERMIT

December 14, 2016

PERMIT NO: 2021-H-853-00135

STATE ROAD INFORMATION

County:	Section:	State Road No:	Beginning Mile Post:	Ending Mile Post:
Brevard	70470000	SR 528	9.956	9.956

APPLICANT INFORMATION

The Utility Agency Owner (UAO) shall be identified in this Applicant Information Box. When the UAO is a City or County and desires to have the Utility Builder make a joint permit applicant, as prescribed in Section 2.1(4) of the 2017 Utility Accommodation Manual (UAM), the Utility Builder shall also be identified in this Applicant Information Box. A Utility Builder alone cannot apply for a utility permit without the City or County adding them as a joint applicant.

Utility Agency/Owner (UAO)

Name: City of Cocoa
Contact Person: City of Cocoa
Address: 351 Shearer Blvd
City: Cocoa
State: Florida
Zip: 329223292
Telephone: (321) 433-8722 ext. _____
Email: jwalsh@cocoafl.org

Utility Builder (only applicable when the UAO is a City or County)

Name: _____
Contact Person: _____
Address: _____
City: _____
State: _____
Zip: _____
Telephone: _____
Email: _____

WORK DESCRIPTION

The Applicant(s) requests permission from the Florida Department of Transportation (FDOT) to construct, operate, and maintain the utilities as described below and as depicted in the incorporated documentation.

Construction proposed within the SR 528 right-of-way consisting of installation of 311 lf of 10" HDPE forcemain, 311 lf of 10" HDPE reuse main and 311 lf of 14" HDPE watermain all via direct bore across the right-of-way of SR 528 as a part of the City of Cocoa Utilities Department Utility Extension Improvements project in Cocoa, FL.

There are no FDOT Construction projects (proposed or underway) in the area and this work is not related to an approved utility work schedule. (see work

Utility Work No:

Additional sheets are attached and are incorporated into this permit Yes ☐ No ☑

For FDEP certification, the FDOT agency report is attached in accordance with UAM Section 2.4.1 (13) Yes ☐ No ☑

TRAFFIC CONTROL (TCP)

☑ The TCP will comply with the following 600 series index(es) 603, 601, 611

☐ A TCP has been attached and incorporated into this permit application in compliance with UAM Section 2.4.2.

MOT Technician's contact information (may be supplied at the two (2) business day notification to FDOT):

Name: TBD Telephone _____ Email: _____

COMMENCEMENT OF WORK

The UAO and/or Utility Builder shall commence actual construction in good faith within sixty (60) calendar days after approval of the permit application. If the beginning date is more than sixty (60) calendar days from the date of approval, the UAO and/or Utility Builder must review the permit with the FDOT Approving Engineer listed to make sure no changes have occurred to the transportation facility that would affect the permit's continued approval. The UAO and/or Utility Builder shall make good faith efforts to expedite the work and complete the work within the calendar days indicated.

Anticipated Start Date: 3/1/2022

Calendar days needed to completed: 180

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

Florida Department of Transportation

UTILITY PERMIT

PERMIT NO: 2021-H-853-00135

APPLICANT SIGNATURE

By the below signature(s) the UAO and/or Utility Builder agree(s) to construct, operate, and maintain the work as noted in the above Work Description, shown in plans and incorporated documents, in compliance with the UAM, all instructions noted in the FDOT Special Instructions Box, and special instructions incorporated into this permit. The UAO and/or Utility Builder declares, the location of all existing utilities that it owns or has an interest in, both aerial and underground, are accurately shown on the plans of the work areas. In accordance with UAM Section 2.8, the UAO and/or Utility Builder further declares that a letter of notification was delivered to the owners of other facilities within the work areas and that those listed below are the only facility owners known to be involved or potentially impacted by the proposed work.

Date Notified:	Name of other facility owners (attach additional sheets if necessary).
12/6/2021	Spectrum
12/6/2021	AT&T
12/6/2021	City Gas
12/6/2021	FPL

Utility Agency/Owner	Utility Builder (when applicable)
Signature: KATHERINE ENNIS (digital signature) Date: 12/3/2021	Signature: _____ Date: _____
Name (printed): KATHERINE ENNIS	Name (printed): _____
Title: _____	Title: _____

FDOT PROJECT INFORMATION

Pursuant to UAM Section 2.1(10), the utility work is within FDOT projects listed below and must have a Utility Work Schedule for each project approved prior to commencement of work within the FDOT project limits:

FDOT construction is proposed or underway. Refer to Financial Project Id: NA
This work is NOT related to an approved Utility Work Schedule.

FDOT SPECIAL INSTRUCTIONS

In accordance with UAM Section 2.7, FDOT incorporates the below and attached special instructions into this permit.

See Attachment A and Special Conditions

Additional FDOT Special Instructions are attached and incorporated into this permit. Yes ☑ No ☐

PERMIT APPROVAL

By signature below, FDOT gives permission to the UAO and /or Utility Builder to construct, operate, and maintain the utilities indicated in this Utility Permit in compliance with the UAM, all incorporated documents, and special instructions. Any changes to the approved work must be approved by the FDOT's Approving Engineer and attached and incorporated into this permit in accordance with UAM Section 2.11.

Approving Engineer: Wilfredo Acevedo (digital signature) Date: 7/13/2022
Name: Wilfredo Acevedo
Title: DEPUTY DIST MAINTENANCE ADMINISTRATOR

Notification of Utility Work to be provided to: Telephone (954) 934-1205 ext. _____ or Email: daniel.ekback@dot.state.fl.us

An FDOT Representative is required to be present on the worksite prior to commencement of work. Yes ☑ No ☐

Rep. Name: Robert Wierz Telephone 4072643397 Email: robert.wierz@dot.state.fl.us

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

Florida Department of Transportation

UTILITY PERMIT

PERMIT NO: 2021-H-853-00135

CERTIFICATION

I, the undersigned UAO and/or Utility Builder, hereby CERTIFY that the utilities were constructed and inspected in compliance with the UAM all incorporated documents, and special instructions. Pursuant to UAM Section 2.11, all changes have been approved by the FDOT's Approving Engineer and incorporated into this permit along with all other material certifications, test results, bore logs, approved plans changes, as-built plans or other required documentation.

I also CERTIFY that work began on _____ and was completed on _____ and that the area was left in as good or better condition than when the work began.

Utility Agency/Owner	Utility Builder (when applicable)
Signature: _____ Date _____	Signature:_____ Date _____
Name (printed): _____	Name (printed): _____
Title: _____	Title: _____

FINAL INSPECTION OF WORK

☐ The work was inspected and found to be in non-compliance as noted below:

☐ All issues of non-compliance listed above have been brought into compliance and/or FDOT has no outstanding issues that need to be addressed by the UAO and/or Utility Builder. However, this final inspection does not release the UAO and/or Utility Builder of their continuing responsibilities pursuant to Rule 14-46.001, the UAM, all incorporated documents, and special instructions.

FDOT Inspector: _____ Date: _____

Name: _____

Title: _____

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

PERMIT NO.: 2021-H-853-00135

The complete Work Description could not fit in the space allotted on Page 1 of the Utility Permit so it is displayed below.

Work Description

Construction proposed within the SR 528 right-of-way consisting of installation of 311 lf of 10" HDPE forcemain, 311 lf of 10" HDPE reuse main and 311 lf of 14" HDPE watermain all via direct bore across the right-of-way of SR 528 as a part of the City of Cocoa Utilities Department Utility Extension Improvements project in Cocoa, FL.

There are no FDOT Construction projects (proposed or underway) in the area and this work is not related to an approved utility work schedule. However, the Brightline Train Extension project is underway in this area. This application includes proposed utility improvements that will assist with completion of that project for this area.

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

ATTACHMENT "A"

Permit #2021-H-853-00135 (TP-70-UT-189-21)

Project Description: SR-528, MP 42.8

City of Cocoa is proposing to directional bore (1)-14" HDPE PVC Waterline, (1)-10" HDPE PVC Force main, and (1)-10" HDPE PVC Reuse main crossing SR-528, west of I-95. FTE ITS fiber will be crossed WB side of SR-528.

The following apply:

1. The Applicant shall be responsible to make sure the Contractor abides by all FDOT Standard Specifications and Standard Plans.

2. **The Applicant shall be contacted by the Florida's Turnpike Enterprise contact person Robert Wierz or his designee within five (5) working days from the date of the permit approval to schedule a pre-work meeting.** At the pre-work meeting, the permit, attachment A, and special conditions will be discussed. Also, the Applicant shall provide emergency contact names and numbers along with a schedule for the proposed work.

3. **This permit does not allow lane closures. Any Lane closure request must be submitted prior to implementation.**

4. Applicant must aide by conditions of the Brightline FDOT Lease Agreement Exhibit C.

This permit is good until 1-27-2023. We are asking that the applicant submit an E-mail requesting an extension, 10 days prior to the completion date, if they want to keep the permit valid and open past the completion date. If an E-mail is not received or an extension is not granted, the permit will be closed, and a new permit submittal will be required to continue work. The extension will be up to the discretion of the Permits Engineer, Dan Ekback, P.E. E-mail: Daniel.ekback@dot.state.fl.us

cc: ***Amanda Glynn, File***

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

Special Conditions

Permit #2022-H-853-00135 (TP-70-UT-189-22)

The following apply:

1. Any subsurface work that is within the Florida Turnpike Right of Way requires a permit. The requestor needs to obtain an approved permit from the Roadway Permits Department. With an approved permit, the Applicant is required to locate and protect the Florida Turnpike ITS facilities and will be responsible for any damage caused to the Turnpike ITS system. This operation is proposed in close proximity to the Turnpike's critical ITS fiber and electrical facilities. Due to the proximity of this operation to critical Turnpike facilities, the existing line(s) must be identified using a level "A" utility locate. Any directional bore must have a **48 inch minimum separation** from all fiber optic and electric cable. The contractor is required to provide notice a minimum of 2 business day prior to starting work.

2. The Applicant shall be responsible for designating, and physically exposing as necessary, <u>all</u> Turnpike-owned underground facilities (electric, ITS, telephone, water, sewer, etc.)

3. The Applicant shall not be allowed to leave any vehicles, equipment or materials within the Turnpike clear zone during non-work periods. The overnight storage of any vehicles, equipment or materials within the Turnpike right-of-way shall be prohibited without prior approval by the Turnpike Permits Office.

4. While work is in progress, all vehicles shall be parked as far off the roadway as possible. All vehicles must be clearly marked with a company name and/or logo, and be equipped with working amber strobe lights. In addition, all workers shall wear ANSI approved apparel (safety vests) while on Turnpike property.

5. The Applicant's attention is directed to the fact that the Applicant will be required to pay tolls, as applicable to the general public.

6. The Applicant shall be responsible for maintaining trench safety in accordance with OSHA and State of Florida regulations.

7. The directional bore work within the SR-528 limited access right-of-way shall only be performed during the period starting on Monday at 8 am and ending on Friday of the same calendar week at 5 pm. The directional bore will not be scheduled to start later than Thursday at noon for any week not preceding a three-day holiday weekend, or later than Wednesday at noon for a week preceding a three-day holiday weekend. No crossing work shall be performed outside these hours or days, or on holidays that fall within these work periods.

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8. The directional bore shall be performed as a continuous operation until the initial bore has been completed, stopping only for short periods for scheduled activities, such as adding bore rods. Each subsequent crossing, whether for back reaming or pipe pullback, shall also be performed as a continuous operation, with no extended work stoppages leaving the cutting head, back reamer or lead end of the pull back pipe within the SR-528 limited access right-of-way, except for unavoidable equipment breakdown or an unforeseen emergency situation.

9. The Applicant shall be responsible for the protection of all Turnpike facilities and structures within the area of this work, including, but not limited to existing drainage structures, concrete ditch protection, signs, delineators and fencing. Any damage to Turnpike facilities or structures shall be reported to the Permits office within 24 hours and repaired or replaced to the satisfaction of the Turnpike, and in compliance with current F.D.O.T. standards and specifications.

10. The Applicant shall restore any area of the Turnpike right-of-way disturbed by this work. This shall include, but not be limited to, the installation of temporary pavement patches, grading of areas to original grade and placement of **sod** in all areas disturbed by this work. All work shall be in accordance with *Standard Specifications for Road and Bridge Construction*, as well as the *FDOT Standard Plans*.

11. In case of extreme traffic or weather conditions, the Applicant may be required to remove their operation from the roadway and/or right-of-way, at the discretion of the Engineer or the Florida Highway Patrol, Troop "K", who has jurisdiction on this roadway.

12. The Applicant shall notify the Turnpike Permits Representative within two weeks of completion of this work. **At that time, a final inspection will be scheduled prior to final acceptance of the work, with participation from the Turnpike, the Applicant, and the Contractor.**

13. The Applicant shall submit the "Certification", found on the back of the Utility Permit authorizing this work, to the Turnpike Permits Office within 30 days from acceptance of the work by the Turnpike.

cc: ***Amanda Glynn, File***

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7/13/2022

EXHIBIT "C"
RULES

The following requirements (as the same may be amended from time to time by agreement of the Parties or by action of the Federal Railroad Administration) shall govern access to the Property reserved for the Department, the State, and all grantees, licensees, permittees, and others claiming by, through, or under the Department or the State as provided in Section 5 of the Lease. The requirements shall be included in any agreement between the Department and a third party ("Contractor") that authorizes work to be performed on the Property (a Contractor performing work for the Department is also a "Department Contractor"). If the Department utilizes its own employees, in lieu of a Department Contractor, to perform work on the Property, the Department and its employees shall comply with the requirements contained in this Exhibit "C" (except as otherwise provided in this exhibit or in the Lease). The Department shall also include the requirements identified in paragraphs A, B, C, D, E and F in any utility permit issued after the Effective Date of the Lease in accordance with paragraph (d) of Section 5 of the Lease (utility permits or other authorizations issued by the Department prior to the Effective Date of the Lease do not contain these requirements and AAF is solely responsible for coordinating with the holders of such permits and authorizations pursuant to Section 15 of the Lease).

Requirements

[Department/Contractor/Permittee] may not access the Property leased to All Aboard Florida – Operations LLC ("AAF"), pursuant to the Lease dated _____ with the Department (the "Property") without complying with the following requirements:

A. The [Department/Contractor/Permittee] shall exercise its access rights under the Lease in a reasonable manner so as to minimize interference with AAF's use and enjoyment of the Property and safe and reliable operation of the Project.

B. [Department/Contractor/Permittee] will not discharge surface water upon any portion of the Property.[1]

C. [Department/Contractor/Permittee] will not alter the Property so as to cause water to drain or flow onto the Property nor so as to cause an undermining of the Property.[2]

D. [Department/Contractor/Permittee] acknowledges that [Department/Contractor/Permittee] will have no authority or power, express or implied, to create or cause any construction lien or mechanics' or materialmen's lien or claim of any kind against any portion of AAF's leasehold interest in the Property. [Department/Contractor/Permittee] will promptly cause any such liens or claims to be released by payment, bonding or otherwise, but in any event not more than ten (10) business days after request by AAF, and will indemnify the AAF against losses arising out of any such claim including, without limitation, legal fees and court costs. NOTICE IS HEREBY GIVEN THAT AAF WILL NOT BE LIABLE FOR ANY

[1] This requirement shall not be construed to require the Department to modify any existing drainage for the highway facility located adjacent to the Property.
[2] This requirement shall not be deemed to restrict the Department's authority to take action pursuant to prevent drainage from the Property from being discharged onto other Department owned right-of-way.

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LABOR, SERVICES OR MATERIAL FURNISHED OR TO BE FURNISHED TO [DEPARTMENT/CONTRACTOR/PERMITTEE] HEREUNDER, OR TO ANYONE PROVIDING LABOR, SERVICES, MATERIALS OR EQUIPMENT THROUGH OR UNDER [DEPARTMENT/CONTRACTOR/PERMITTEE], AND THAT NO MECHANICS' OR OTHER LIENS FOR ANY SUCH LABOR, SERVICES, MATERIALS OR EQUIPMENT WILL ATTACH TO OR AFFECT THE LEASEHOLD INTEREST OF AAF IN THE PROPERTY. [DEPARTMENT/CONTRACTOR/PERMITTEE] WILL DISCLOSE THE FOREGOING PROVISIONS TO EACH CONTRACTOR OR PARTY ENGAGED BY [DEPARTMENT/CONTRACTOR/PERMITTEE] PROVIDING LABOR, SERVICES, MATERIALS AND/OR EQUIPMENT WITH REGARD TO THE PROPERTY.

E. A railroad watchman or flagman shall be present at all times work is being performed by [Department/Contractor/Permittee] on the Property to the extent that a watchman and/or flagman is required to comply with any applicable laws or the then-existing documented safety policies of AAF. [Department/Contractor/Permittee] shall request that AAF advise whether a railway watchman or flagman is required to be present during the time work is being performed on the Property by [Department/Contractor/Permittee]. [Permittee] shall provide AAF no less than fourteen (14) calendar days' advance written notice of its intention to perform work on the Property to allow AAF to provide such notice regarding required watchmen or flagmen, if and as necessary.[3] Such notice to AAF shall be provided in writing via email and facsimile to the attention of the following person:

All Aboard Florida - Operations LLC
2855 LeJeune Road, 4th Floor, Coral Gables, FL 33134
Attn: Adrian Share
Email address: Adrian.Share@allaboardflorida.com
Facsimile Number: 305-520-2400

Except as set forth herein, [Contractor/Permittee] shall pay the cost and expense of any such required watchmen and/or flagmen. AAF shall be solely responsible for the cost and expense of any required watchmen and/or flagmen if work is being performed on, or in the vicinity of, the Property by the Department or a Department Contractor in accordance with the rights reserved in Section 5 of the Lease.

F. In accordance with Section 5 of the Lease:

1. [Contractor/Permittee] shall procure and maintain Railroad Protective Liability Insurance, of $2,000,000 per accident, $6,000,000 aggregate, naming AAF as a named insured. The definition of designated contractor must be amended in such insurance

[3] The 14 day notice requirement shall not apply to any work on the Property that is undertaken by a Department contractor or by the Department directly (notice of which shall be accomplished as provided in Section 5 of the Lease). The 14 day notice requirement also shall not apply to any work on the Property that is undertaken by the holder of a Department utility permit to remedy actual or reported emergency, danger, or threat involving the utility located on the Property that is reasonably believed by the Permittee, the Department or police, fire, emergency services, armed forces, and any other governmental security or emergency personnel to have caused (or to present the imminent potential to cause) injury to individuals, damage to property, or threat to the environment or to public safety, in which case the Permittee shall provide such notice to AAF as is practicable under the circumstances.

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policy to include contractors of every tier.

2. All other liability insurance policies that [Contractor/Permittee] is required to obtain under the terms of its agreement with the Department shall: (i) name AAF as an additional insured (with the exception of workers' compensation insurance and professional liability insurance); (ii) be non-contributing with, and shall apply only as primary and not as excess to any other insurance available to AAF or any mortgagee or lender thereto; and (iii) have all railroad exclusions removed.

3. The CGL policy must delete restrictions for indemnity or work within 50 feet of a railroad or on railroad property.

4. All policies required to be provided naming AAF as a named insured or additional insured shall contain a waiver of subrogation in favor of AAF and its insurers, officers, officials, and employees. [Contractor's] insurance companies, in their endorsements, must agree to such waiver of subrogation.

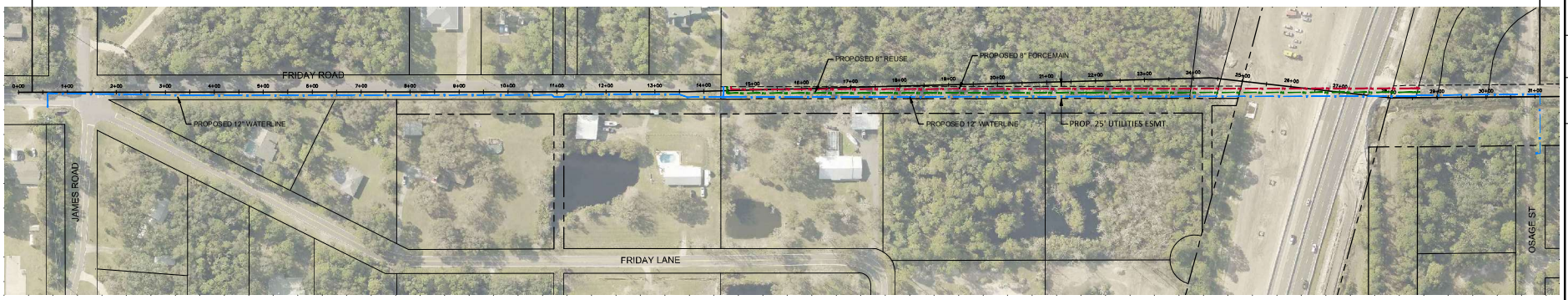
G. [Department/Contractor/Permittee] shall otherwise comply with all rules and regulations mandated by the Federal Railroad Administration regarding access to right-of way utilized for railroad purposes.

Approved
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Wilfredo Acevedo
7/13/2022

CONSRUCTION PLANS PREPARED FOR:

FRIDAY ROAD UTILITIES IMPROVEMENTS

TOWNSHIP 24 SOUTH, RANGE 35 EAST, SECTIONS 10 & 11
BREVARD COUNTY FLORIDA



NORTH

MASTER SITE PLAN
SCALE: 1" = 100'

UTILITY COMPANY CONTACTS

BREVARD COUNTY WATER RESOURCES
2725 JUDGE FRAN JAMIESON WAY
VIERA, FLORIDA 32940
PHONE: (321) 639-2089

BREVARD COUNTY ROAD & BRIDGE
555 CONE ROAD
MERRITT ISLAND, FLORIDA 32952
PHONE: (321) 455-1389

CITY OF COCOA UTILITIES DEPT.
351 SHEARER BLVD
COCOA, FLORIDA 32922
PHONE: (321) 433-8710

AT&T
712 FLORIDA AVE.
COCOA, FLORIDA 32922

FLORIDA CITY GAS
OPERATIONS DEPT.
4180 S. U.S. HIGHWAY No.1
ROCKLEDGE, FLORIDA 32955
PHONE: (321) 638-3424

FLORIDA POWER&LIGHT
270 PIONEER ROAD
MERRITT ISLAND, FLORIDA 32952
PHONE: (321) 455-8125

SPECTRUM
720 MAGNOLIA AVENUE
MELBOURNE, FLORIDA 32935
PHONE: (321) 757-6395

SUNSHINE 811
www.sunshine811.com
(800) 432-4770

GENERAL STATEMENT

This plan is for the proposed construction of approx. 3,223 LF 12" WATERLINE, 1,410 LF 8" REUSE & 1,410 LF 8" FORCEMAIN to provide improved utility service to existing and future residential homes. Utilities to be located within Friday Road right-of-way. Direct Bore under HWY 528, and easements to be provided by private property owners.

PROJECT CONTACTS

ENGINEER:
DRMP, INC.
100 FAIRWELL STREET
MERRITT ISLAND, FLORIDA 32953
PHONE: (321) 453-0010
CONTACT: JOSEPH W. MAYER, P.E.

OWNER/DEVELOPER:
CITY OF COCOA UTILITIES DEPT.
351 SHEARER BLVD
COCOA, FLORIDA
PHONE:(321) 433-8700
CONTACT: JOHN "JACK" WALSH PE, DIRECTOR

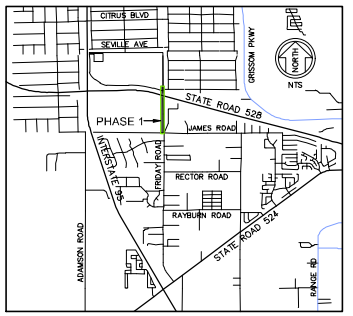
SURVEYOR:
DRMP, INC.
100 FAIRWELL STREET
MERRITT ISLAND, FLORIDA 32953
PHONE: (321) 453-0010
CONTACT: JOSEPH B. CABANISS, P.L.S.

SHEET INDEX

SHEET	DESCRIPTION
C1	COVER SHEET
C2	GENERAL NOTES & SUMMARY OF PAY ITEMS
C3-C9	CONSTRUCTION PLAN & PROFILES
C10	SECTIONS & DETAILS
C11-C15	STANDARD WATERLINE DETAILS
C16	MAINTENANCE OF TRAFFIC
C17-C18	STORM WATER POLLUTION PREVENTION PLAN NOTES

Digitally signed by Joseph W Mayer
Reason: This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
Date: 2021.12.02 16:08:09 -05'00'

VICINITY MAP



REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	LB
DRAWN BY	LB
CHECKED BY	JNM
APPROVED BY	JNM

COVER

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • LANDSCAPE ARCHITECTS
Certificate of Authorization No. 2648
100 Fairwell Street Suite A, Merritt Island, FL 32953
Phone: 321.453.0010 Fax: 321.453.0669 WWW.DRMP.COM
DRMP, Inc.

LICENSE
No. 36836
STATE OF FLORIDA
REGISTERED PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: AS SHOWN
DATE: Nov. 01, 2021
DRAWING: C 1.0

This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

C:\Dwg\Eng\412401 Lakes at Cocoa Grove\402208 Friday Road Utilities Plan\402208 01-02 COVER.dwg, 12/1/2021 3:17:21 PM, Cad-2

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

GENERAL NOTES

Notice

1. This drawing is valid only when signed and sealed by the Engineer(s) of Record. These plans are considered incomplete without all accompanying construction documents such as Technical Specifications, Geotechnical Report, permits, etc., as applicable.
2. These plans, in whole or in part, shall not be reproduced without written consent from DRMP, Inc.

Survey Information

1. Boundary and topographic information shown hereon was provided per survey by DRMP, INC. dated October 2021.
6. Elevations shown hereon are based on North American Vertical Datum of 1988 ("NAVD88")
   Benchmarks are as follows:
   a. Primary benchmark: Brevard County Survey & Mapping Benchmark "E5A52"; a 3" aluminum disk set in a concrete headwall 23 feet east of the centerline of James Road and 29 feet south of the centerline of Friday Road.
   b. Site benchmarks as shown hereon.
7. Contractor is to verify the vertical and horizontal location of all existing utilities (underground and overhead) prior to ordering of materials/commencement of construction. Any conflicts shall be reported to the Engineer of Record immediately.
8. Contractor is to protect and/or replace all survey monumentation. Any survey corners disturbed or destroyed shall be replaced by a Florida Licensed Surveyor at Contractor's expense prior to substantial completion of project.

Standards

1. All construction and site practices to comply with FDOT Standard Specifications for Road and Bridge Construction (January 2019) and FDOT Standard Plans (2021–22).
2. All construction to comply with the Owner requirements and the latest specifications, criteria, and construction details of CITY OF COCOA.

General

1. The contractor is responsible for obtaining all permits required for construction (land clearing, dewatering, building, etc.) prior to commencement of construction. Contractor shall have permits posted at the job site at all times.
2. The contractor is responsible for all damage to infrastructure located within the right-of-way and on private property during construction. This includes, but is not limited to, the structural integrity of the roadway asphalt, base, and stabilized sub-base, pavement markings, signage, sidewalks, stormwater drainage system, drainage structures, curbs, and ground cover. All repairs shall be completed in accordance with CITY OF COCOA & FDOT specifications and standards. All repairs shall be completed prior to the final inspection of the project. Utility company specifications may also apply for damage to any existing utilities.
3. Contractor is to sequence construction in a manner that will result in the shortest possible disruption to pedestrian and vehicular traffic.
4. Contractor to maintain required horizontal and vertical clearance from existing overhead electric or communication lines in accordance with all FPL and OSHA requirements. All personnel, equipment, and improvements shall meet these requirements. Shall any proposed improvements conflict with these separation requirements, Contractor shall immediately notify Engineer of Record so that remedial design can be performed.
5. Any regulatory signs removed during the daily construction activity must be reinstalled at the end of each work day.
6. Contractor is to coordinate with appropriate utilities companies regarding utility relocation efforts. It is the contractor's responsibility to provide adequate notification lead-time for relocations to avoid construction delays. Contractor is to notify Engineer of Record of any utility conflicts.
7. Contractor is responsible for ensuring continuous service for all existing utilities.
8. No overnight parking or storage of materials will be allowed within the rights-of-way without written permission from the appropriate jurisdiction and in no case shall such parking or storage be within the Clear Zone. During active construction all parking and storage of materials shall comply with FDOT Index No. 102-600.
9. Any contractor staging on private property to be pre-approved in writing by property owner.
10. Contractor is responsible for any and all violations associated with construction of the project, including fines imposed from any governing agency involved in enforcement.
11. Contractor is responsible for keeping work area neat and clean. Site area must be restored to original condition or better.
12. The contractor is to erect barricading, flagging or temporary fencing sufficient to restrict all vehicles and unauthorized personnel from the site work area. These barriers must be placed a sufficient distance from the site work area to ensure public safety and are to be maintained throughout construction.
13. Contractor is to provide a minimum of 14 business days' notice to property owner(s) of impending removal of mailboxes, landscaping, sprinklers, signs, etc. to allow removal by property owner(s). Private sprinkler systems left in Rights-of-Way shall be cut and capped at the right-of-way line, and removed items given to property owner(s).
14. Signs and mailboxes shall be maintained and/or replaced as necessary for the duration of the project.
15. Driveways to private residences, internal driveway parking spaces, businesses and all public street connections shall remain open except for periods associated with critical points of construction. Contractor to closely coordinate with property owners to minimize or eliminate inconvenience or business interruptions.
16. Vibratory compaction is not permitted (portable plate compactors are acceptable). Contractor is to utilize static rollers only.
17. All muck or other deleterious material encountered within the project site shall be completely removed and replaced with clean fill materials.
18. Contractor shall provide a copy of all testing results to the Engineer of Record and the Owner.
19. Contractor shall provide certified as-built record drawings (certified by a Florida registered land surveyor) to the Engineer of Record and the Owner. As-built drawings shall be in accordance with CITY OF COCOA requirements.
20. Contractor is responsible for scheduling inspections and testing as required per the project permits.

Excavation

1. Contractor acknowledges that, included in the various items of the proposal and in the total bid price, are costs for complying with the Florida Trench Safety Act in compliance with F.S. 553.60–553.64. These bid prices are to reflect actual costs for complying with the Trench Safety Act (and the requirements of OSHA). Contractor is to provide the owner with a list identifying the trench safety measure description, the units of measure, the unit quantity, unit costs, and total costs for each trench safety measure the contractor proposes to utilize during construction of any phase of this project. This list of trench safety measures and costs is to be supplied to the owner with the bid.
2. Open pits must be filled & restored within one (1) day of excavation. No open trenches during weekends.
3. Contractor is to utilize vertical trenching & associated shoring techniques (such as sheeting, trench boxes, etc.) as needed to ensure the structural integrity, protection and continuous operation of all existing utilities and infrastructure. At a minimum these techniques must also be utilized at all excavations that are:
   a. Within 15 feet of existing power poles and guy wires
   b. Within 8 feet of existing roadways
   c. Within 3 feet of existing sidewalk
4. Contractor is to apply for and acquire a general consumptive use permit (if required) for dewatering activities. All expenses associated with acquiring this permit are incidental to the project and are the responsibility of the Contractor without compensation. All dewatering efforts are the responsibility of the Contractor.

Erosion and Sedimentation Control

1. Stormwater runoff flow patterns must be maintained by the Contractor during the course of construction.
2. The contractor shall install erosion/sedimentation controls and tree/natural area protective fencing prior to any site preparation work (clearing, grubbing, or excavation).
3. Controls and fences shall be in conformance with FDOT, FDEP, and/or St. Johns River Water Management District standards. If a FDEP-NPDES Notice of Intent for Construction Discharge Permit is required Contractor is responsible for preparation of the Stormwater Pollution Prevention Plan (SWPPP), and obtaining the permit (if not provided by the Owner. Contractor is also responsible for all maintenance and reporting activities in conformance with the conditions of the permit.
4. The placement of erosion/sedimentation controls and tree/natural area protective fencing shall be in accordance with the approved erosion and sedimentation control plan (or SWPPP).
5. The contractor is required to inspect the controls and fences at weekly intervals and after significant rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
6. The controls must remain in place until disturbed areas are revegetated and the areas have been permanently stabilized.
7. Prior to final acceptance by the Owner, all controls, fencing, and accumulated sediment must be removed and the area restored to the proper grade.
8. All disturbed areas to be sodded unless otherwise shown. All disturbed areas within right-of-way are to be sodded with Bahia Sod unless existing sod is St. Augustine which shall be replaced with St. Augustine Sod. All sod replacement is to be with like sod type. Construction is limited to within the Rights-of-Way and/or easements obtained. Disturbed areas outside the construction limits will be sodded at the Contractor's expense. Sod shall be pinned for slopes steeper than 4ft:1V.

Roadway and Sidewalk

1. All areas requiring striping shall be identified using the Striping and Visual Contact Criteria of the Manual on Uniform Traffic Control Devices (Federal Highway Administration – FHWA). Contractor to remove existing conflicting striping by high pressure water or mechanical means meeting FDOT requirements. Painted temporary striping is to be applied. Final striping shall not be applied until asphalt has properly cured. All final pavement markings are to be thermoplastic.
2. All concrete shall meet FDOT design mix and specifications. Curing method shall be in accordance with the FDOT Specifications for Road and Bridge Construction.
3. Only "New" (FOS) fluorescent orange sheeting shall be used on M.O.T. signage (FDOT Section 994).
4. All open asphalt cuts shall have excavatable flowable fill and temporary asphalt installed within two (2) days of excavation. Permanent asphalt including milling, if needed, shall be completed within thirty (30) days of excavation.
5. Sidewalk ramping shall not exceed a 12:1 slope and must meet F.D.O.T., ADA, and State of Florida requirements.
6. Concrete sidewalks (or pedways) and concrete driveway aprons shall be constructed over soils compacted to 98% density, of AASHTO T-180 6" thick. Should existing soils be found unsuitable for compaction, additional compatible materials shall be brought to the site for use in subgrade. Alternate methods of compaction may be required to avoid damage to surrounding properties. Any additional fill required to achieve grade or compaction is included at Contractor's expense and separate payment will not be made.
7. Expansion joint material shall be installed at all cold joints and at a maximum of every 50 feet. No slip form paving of sidewalk is permitted.
8. Construct sidewalk joints pursuant to FDOT Index No. 522-001. Sidewalk patching will not be acceptable.
9. Contractor shall trim any existing vegetation to provide a minimum of 2 feet horizontal clearance and 10 feet vertical clearance from proposed sidewalk.
10. All posts and hardware for any signs installed on the site or in the Brevard County right-of-way shall adhere to the requirements in Brevard County Land Development Exhibit 26.

MOT

1. A Project Specific Maintenance of Traffic (MOT) plan or Roadway Closure MOT/Detour plan must be submitted to CITY OF COCOA for approval a minimum of two (2) weeks prior to start of construction for all roadways. The MOT plan shall be in accordance with MUTCD and FDOT Standard Index 102 Series, Latest Editions.
2. Pre-Construction meetings must be scheduled with CITY OF COCOA a minimum of two (2) weeks prior to start of construction for all roadways.
3. Any lane closures shall be coordinated with CITY OF COCOA in writing and approved two (2) weeks prior to any lane closures in the Rights-of-way.

FDOT

1. Contact FDOT to schedule Pre-Work Meeting two weeks prior to beginning work (321) 634-6100.
2. Coordinate Open Cut and Mill & Resurface repair with FDOT Permits Office (321) 634-6100.
3. No steel plates shall be allowed on FDOT roadways.

City of Cocoa Utilities

1. All M.J. joints to be restrained using megalugs.
2. All D.I.P. to be wrapped in polyethylene.
3. Customers to be given 48 hours written notice prior to utility relocation.
4. City of Cocoa to perform materials inspection prior to field assembly. The Contractor is responsible for scheduling this inspection with a City of Cocoa Engineering Inspector.
5. City of Cocoa inspectors must be present to see all pipe construction. Visual inspection required in addition to pressure testing.
6. Regardless of private or public dedication, there shall be no utility connections or meter boxes within proposed or existing sidewalks or driveway areas.
7. All waterline pipe to be swabbed with chlorine and a bacteriological test is required.
8. Jumper assemblies are to be located as close to the right-of-way as possible.

Summary of Pay Items

Item #	Qty	Un	Description
101-1	1	LS	Mobilization
101-2	1	LS	Pre & post construction video
101-3	1	LS	Record drawings
102-1	1	LS	Maintenance of traffic
104-30	1	LS	Erosion control
110-1-1	1	LS	Clearing and grubbing
121-70	20	CY	Flowable Fill
334-1-23	10	TN	Superpave asph. traf C, SP-12.5
570-1-3	2,500	SY	Sod, Bahia
Potable Water			
1050-31-208	130	LF	8" PVC water line
1050-31-212	1,480	LF	12" PVC water line
1050-41-212	1,515	LF	Direct bore 12" fusible PVC water line
1055-1	1	LS	Water pipe fittings
1080-11-303	1	EA	6"x6" Tapping sleeve & valve
1080-11-403	1	EA	12"x12" Tapping sleeve & valve
1080-11-404	6	EA	12" Gate valve
Force Main			
2050-31-208	50	LF	8" PVC force main
2050-31-210	50	LF	10" PVC force main
2050-41-208	1,230	LF	Direct bore 8" fusible PVC force main
2055-1	1	LS	Force main fittings
2080-11-304	2	EA	8" Gate valve
2080-11-404	2	EA	10" Gate valve
Reclaimed Water			
3050-31-208	50	LF	8" PVC reclaimed water main
3050-31-210	70	LF	10" PVC reclaimed water main
3050-41-208	1,230	LF	Direct bore 8" fusible PVC reclaimed water
3055-1	1	LS	Reclaimed water main fittings
3080-11-304	2	EA	8" Gate valve
3080-11-404	2	EA	10" Gate valve

NO.	DATE	REVISIONS DESCRIPTION	BY

DESIGNED BY: LB
DRAWN BY: LB
CHECKED BY: JNN
APPROVED BY: JNN

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

GENERAL NOTES / SUMMARY OF PAY ITEMS

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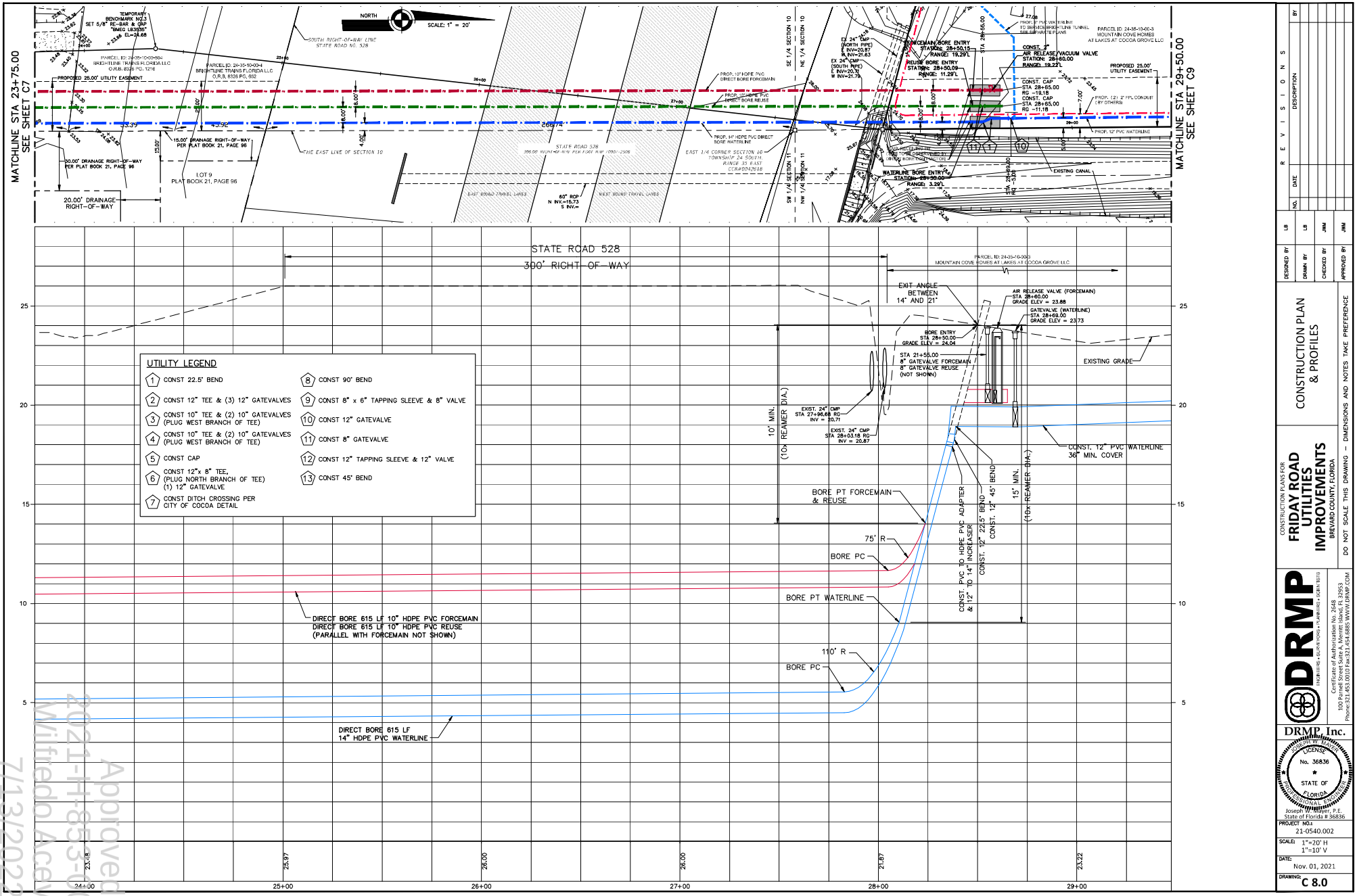
LICENSE
No. 36836
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: N/A
DATE: Nov. 01, 2021
DRAWING: C 2.0

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C:\Dwg\Eng\412401 Lakes at Cocoa Grove\402208 Friday Road Utilities Plan\402208 01-02 COVER.dwg, 12/1/2021 3:17:53 PM, Cad-2

Approved
Wilfredo Acevedo
7/13/2022
22-00135



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Approved
2021-11-853-00135
Wilfredo Acevedo
7/13/2022

NO.	DATE	REVISIONS DESCRIPTION	BY

DESIGNED BY LB
DRAWN BY LB
CHECKED BY JNN
APPROVED BY JNN

CONSTRUCTION PLAN & PROFILES

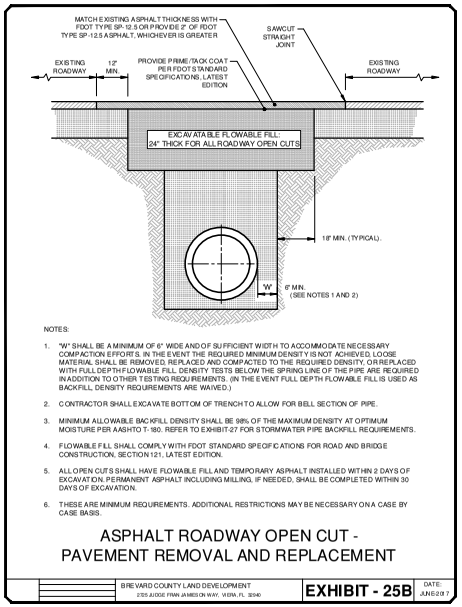
CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

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Certificate of Authorization No. 2648
100 Purnell Street Suite A, Merritt Island, FL 32953
Phone: 321.453.0010 Fax: 321.453.0669 WWW.DRMP.COM
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JOSEPH W. MAYER
LICENSE No. 36836 STATE OF FLORIDA
PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: 1"=20' H
1"=10' V
DATE: Nov. 01, 2021
DRAWING: C 8.0

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NOTES:

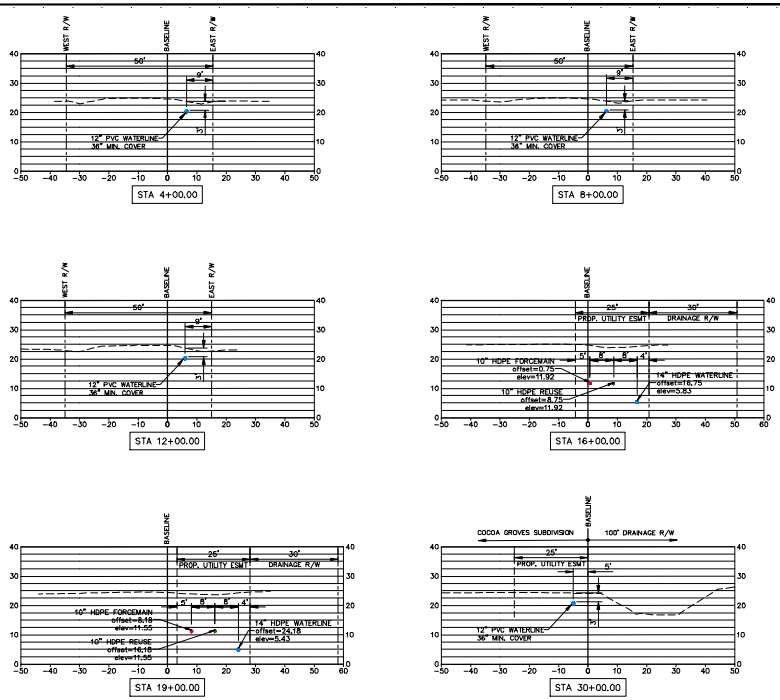
1. "W" SHALL BE A MINIMUM OF 6" WIDE AND OF SUFFICIENT WIDTH TO ACCOMMODATE NECESSARY COMPACTION EFFORTS. IN THE EVENT THE REQUIRED MINIMUM DENSITY IS NOT ACHIEVED, LOOSE MATERIAL SHALL BE REMOVED, REPLACED AND COMPACTED TO THE REQUIRED DENSITY, OR REPLACED WITH FULL DEPTH FLOWABLE FILL. DENSITY TESTS BELOW THE SPRING LINE OF THE PIPE ARE REQUIRED IN ADDITION TO OTHER TESTING REQUIREMENTS. (IN THE EVENT FULL DEPTH FLOWABLE FILL IS USED AS BACKFILL, DENSITY REQUIREMENTS ARE WAIVED.)
2. CONTRACTOR SHALL EXCAVATE BOTTOM OF TRENCH TO ALLOW FOR BELL SECTION OF PIPE.
3. MINIMUM ALLOWABLE BACKFILL DENSITY SHALL BE 98% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE PER AASHTO T-180. REFER TO EXHIBIT-27 FOR STORMWATER PIPE BACKFILL REQUIREMENTS.
4. FLOWABLE FILL SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 121, LATEST EDITION.
5. ALL OPEN CUTS SHALL HAVE FLOWABLE FILL AND TEMPORARY ASPHALT INSTALLED WITHIN 2 DAYS OF EXCAVATION. PERMANENT ASPHALT INCLUDING MILLING, IF NEEDED, SHALL BE COMPLETED WITHIN 30 DAYS OF EXCAVATION.
6. THESE ARE MINIMUM REQUIREMENTS. ADDITIONAL RESTRICTIONS MAY BE NECESSARY ON A CASE BY CASE BASIS.

ASPHALT ROADWAY OPEN CUT - PAVEMENT REMOVAL AND REPLACEMENT

BREVARD COUNTY LAND DEVELOPMENT
2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940

EXHIBIT - 25B

DATE: JUNE 2017



NO.	DATE	REVISIONS DESCRIPTION	BY

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
LB	LB	JNM	JNM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

SECTIONS & DETAILS

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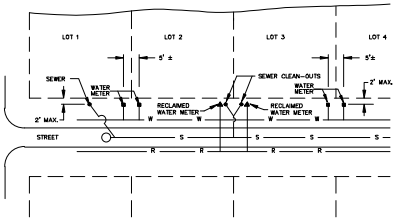
JOSEPH W. MAYER — LICENSE No. 36836 — STATE OF FLORIDA — PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: 1"=20' H
DATE: Nov. 01, 2021
DRAWING: C 10.0

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022

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TYPICAL LOT SERVICE LINE LOCATION

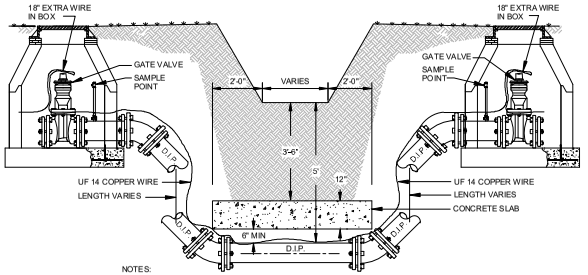
NTS DATE: JULY 2021

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)								
TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90° BEND	21	29	38	45	53	66	79	91
45° BEND	9	12	16	19	22	45	33	38
22-1/2° BEND	5	6	8	9	11	14	16	19
11-1/4° BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3
6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

RESTRAINED PIPE TABLE
WATER & RECLAIMED WATER MAINS

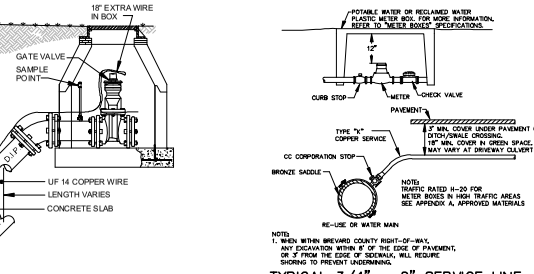
NTS DATE: JULY 2021



NOTES:
1. Main shall be restrained joint D.I.P. and extend 5' on either side of the drainage ditch.
2. Concrete slab shall be 2' wider than the pipe O.D. and a minimum width of 6 feet.
3. Concrete shall be 2500 PSI compressive strength with fibermesh reinforcement.
4. Per FDEP, isolation valve closest to the water source will have 2 permanent taps and will be in a manhole.

CANAL OR DRAINAGE DITCH CROSSING

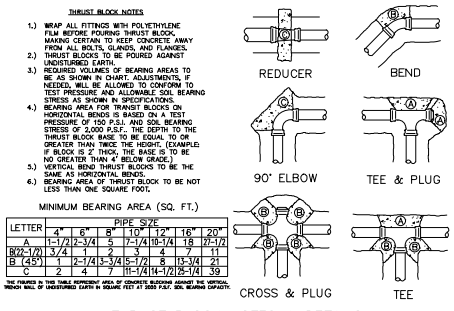
NTS DATE: JULY 2021



NOTES
1. WHEN WITHIN BREVARD COUNTY RIGHT-OF-WAY, ANY EXCAVATION WITHIN 8' OF THE EDGE OF PAVEMENT, OR 3' FROM THE EDGE OF SIDEWALK, WILL REQUIRE SHORING TO PREVENT UNDERMINING.

TYPICAL 3/4" – 2" SERVICE LINE

NTS DATE: JULY 2021



THRUST BLOCK NOTES

1.) WRAP ALL FITTINGS WITH POLYETHYLENE FILM BEFORE POURING THRUST BLOCK, MAKING CERTAIN TO KEEP CONCRETE AWAY FROM ALL BOLTS, GLANDS, AND FLANGES.
2.) THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.
3.) REQUIRED VOLUMES OF BEARING AREAS TO BE AS SHOWN IN CHART. ADJUSTMENTS, IF NEEDED, WILL BE ALLOWED TO CONFORM TO TEST PRESSURE AND ALLOWABLE SOIL BEARING STRESS AS SHOWN IN SPECIFICATIONS.
4.) BEARING AREA FOR TRANSIT BLOCKS ON HORIZONTAL BENDS IS BASED ON A TEST PRESSURE OF 150 P.S.I. AND SOIL BEARING STRESS OF 2,000 P.S.F.. THE DEPTH TO THE THRUST BLOCK BASE TO BE EQUAL TO OR GREATER THAN TWICE THE HEIGHT. (EXAMPLE IF BLOCK IS 2' THICK, THE BASE IS TO BE NO GREATER THAN 4' BELOW GRADE.)
5.) VERTICAL BEND THRUST BLOCKS TO BE THE SAME AS HORIZONTAL BENDS.
6.) BEARING AREA OF THRUST BLOCK TO BE NOT LESS THAN ONE SQUARE FOOT.

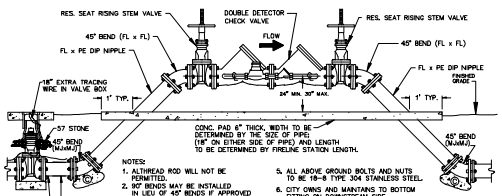
MINIMUM BEARING AREA (SQ. FT.)

LETTER	PIPE SIZE 4"	6"	8"	10"	12"	16"	20"
A	1-1/2	2-3/4	5	7-1/4	10-1/4	18	27-1/2
B(22-1/2)	3/4	1	2	3	4	7	11
B (45°)	1	2-1/4	3-3/4	5-1/2	8	13-3/4	21
C	2	4	7	11-1/4	14-1/2	25-1/4	39

THE STRENGTH IN THESE TABLE REPRESENTS AREA OF CONCRETE BLOCKING AGAINST THE VERTICAL UNDISTURBED EARTH IN SQUARE FEET AT 2000 P.S.F. SOIL BEARING CAPACITY.

THRUST BLOCK NOTES & DETAILS

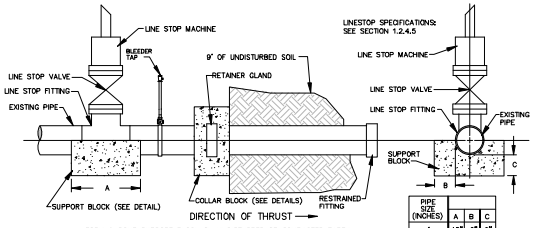
NTS DATE: JULY 2021



NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. 90° BENDS MAY BE INSTALLED IN LIEU OF 45° BENDS IF APPROVED BY FIRELINE ENGINEER & CITY OF COCOA.
3. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
4. ASSEMBLY TO BE PAINTED RUST-OLEUM 9400 SYSTEM (RED) BY THE CITY, PAID FOR BY THE CONTRACTOR.
5. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18-8 TYPE 304 STAINLESS STEEL.
6. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
7. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
8. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.
© REFER TO THRUST BLOCK NOTES & DETAILS.

DOUBLE CHECK DETECTOR ASSEMBLY

NTS DATE: JULY 2021



PIPE SIZE (INCHES)	A	B	C
4	18"	6"	6"
6	18"	6"	6"
8	24"	6"	6"
10	24"	8"	8"
12	30"	8"	8"
16	SEE NOTE	12"	12"
20	SEE NOTE	18"	18"

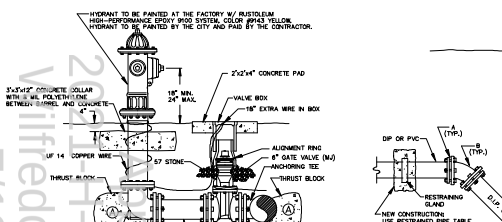
FORM & POUR SUPPORT BLOCK ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED & BEFORE LINE STOP MACHINE IS MOUNTED FOR 16"–20", A= LENGTH OF FITTING PLUS 6"

NOTES:
4"–8" LINE STOP REQUIRES 1" BLEEDER TAP
10" AND LARGER REQUIRES 2" BLEEDER TAP
SEE "SERVICE CONNECTION" SPECIFICATIONS
SEE APPENDIX "A" FOR APPROVED MATERIAL

CONCRETE ANCHOR SUPPORT

LINE STOP DETAIL

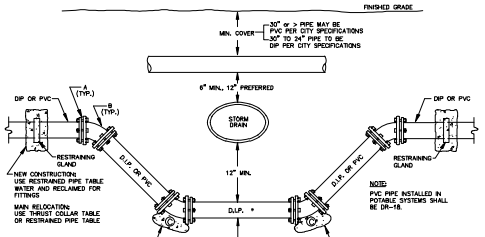
NTS DATE: JULY 2021



NOTES:
1. CITY CREWS WILL APPLY FINISH PAINT COAT.
2. HYDRANT RISERS WILL NOT BE PERMITTED.
3. FIRE HYDRANT WILL HAVE 18-8 TYPE 304 STAINLESS STEEL BOLTS AND NUTS (BONNET, TRAFFIC FLANGE AND SHOE).
4. SEE "FIRE HYDRANTS" SPECIFICATIONS.
5. PAINT PAID BY THE CONTRACTOR.
(A) REFER TO THRUST BLOCK NOTES AND DETAILS.

FIRE HYDRANT ASSEMBLY

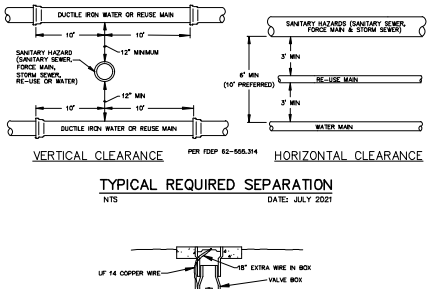
NTS DATE: JULY 2021



* ALL PIPING UNDER STORM DRAINAGE TO BEDIP PER CITY SPECIFICATIONS
ALL PIPE CLEARANCES TO BE PER FDEP SPECIFICATIONS (CHAPTER – 62 – 610 FAC)

STORM DRAIN CROSSING

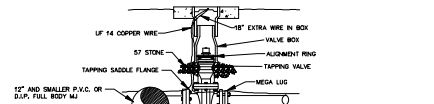
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PER FDEP 62-555.314

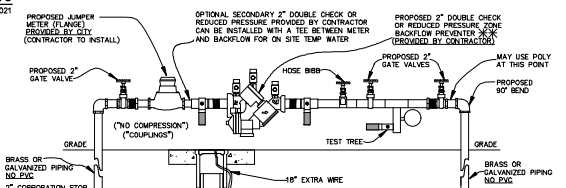
TYPICAL REQUIRED SEPARATION

NTS DATE: JULY 2021



TAPPING SADDLE AND VALVE

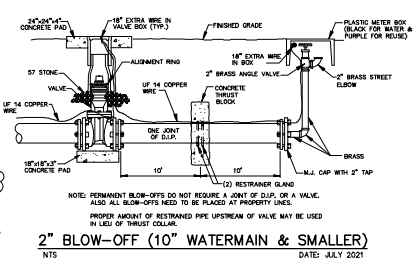
NTS DATE: JULY 2021



NOTES:
1. REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED WATER MAIN IMPROVEMENTS.
2. ONLY EXCEPTION TO JUMPER AND METER ASSEMBLY IS INSTALLATION OF FIRE HYDRANT WHERE AN ANCHORING NIPPLE IS USED.

JUMPER METER ASSEMBLY

NTS DATE: JULY 2021



NOTE: PERMANENT BLOW-OFFS DO NOT REQUIRE A JOINT OF D.I.P. OR A VALVE. ALSO ALL BLOW-OFFS NEED TO BE PLACED AT PROPERTY LINES.

PROPER AMOUNT OF RESTRAINED PIPE UPSTREAM OF VALVE MAY BE USED IN LIEU OF THRUST COLLAR.

2" BLOW–OFF (10" WATERMAIN & SMALLER)

NTS DATE: JULY 2021

NOTES:
1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

City of Cocoa, Florida
Utilities Department
Updated July 2021

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
LB	LB	JNN	JNN

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

Standard Water Details

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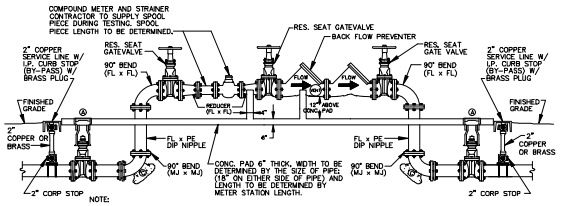
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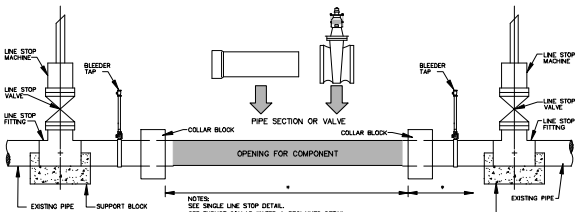
21-1-1-23-3-00135
Wilfredo Acevedo
7/13/2022



NOTE:
1. ASSEMBLY IS TO BE PAINTED RUST-O-THANE NO. 9407-1854 (BLUE)
2. ALL ABOVE GROUND BOLTS AND NUTS TO BE #304 STAINLESS STEEL.
3. ALTHREAD ROD WILL NOT BE PERMITTED.
4. 12" MIN. CLEARANCE FROM THE VENT ON THE BACKFLOW PREVENTER TO THE CONCRETE PAD.
5. 45° BENDS MAY BE USED WHEN PRIOR APPROVED BY ENGINEER.
6. ALL FITTINGS ARE RESTRAINED.
7. IN LIEU OF CONCRETE SUPPORTS, ADJUSTABLE STAINLESS STEEL SUPPORTS ALLOWED.
8. 2" COPPER SERVICE LINE TO BE INSTALLED ON BRASS SADDLE OR WELDED BOSS. 2" BRASS MAY BE USED IN LIEU OF COPPER.
9. ABOVE GROUND ASSEMBLY SHALL BE SET BACK A MINIMUM OF 3' FROM BACK OF CURB.
Ⓐ REFER TO GATE VALVE & VALVE BOX DETAIL.
Ⓑ REFER TO THRUST BLOCK NOTES & DETAILS.

3" AND LARGER METER WITH BACKFLOW PREVENTER ABOVE GROUND INSTALLATION

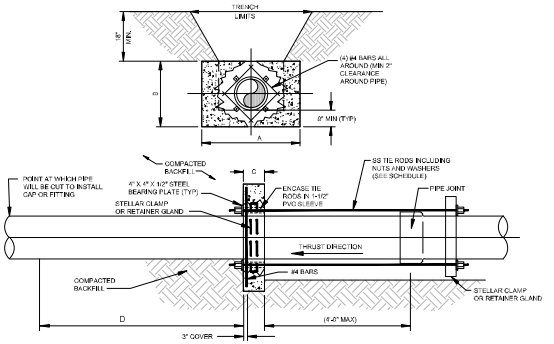
NTS DATE: JULY 2021



NOTES:
SEE SINGLE LINE STOP DETAIL.
SEE THRUST COLLAR WATER & RECLAIMED DETAIL.
4"-8" LINE STOP REQUIRES 1" BLEEDER TAP.
10" AND LARGER REQUIRES 2" BLEEDER TAP.
SEE "SERVICE CONNECTIONS" SPECIFICATIONS.
SEE APPENDIX "A" FOR APPROVED MATERIAL.
* SEE RESTRAINED PIPE TABLE.

DOUBLE LINE STOP DETAIL

NTS DATE: JULY 2021



SCHEDULE OF DIMENSIONS AND MATERIALS

PIPE SIZE (INCHES)	DIMENSIONS (FT.) A	B	C	D	TIE RODS REQ'D DIA. (in.)	NO.
4	2.0	2.0	1.0	2.0	3/4	2
6	2.0	2.0	1.0	4.0	3/4	2
8	3.0	3.0	1.0	5.0	3/4	2
10	4.0	3.0	1.0	8.0	3/4	4
12	5.0	3.0	1.0	10.0	3/4	4
16	*	*	*	*	*	*
20	*	*	*	*	*	*
24	*	*	*	*	*	*

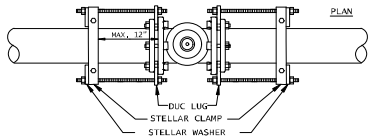
NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING, SOIL DENSITY ASSUMED 120 PCF, SOIL COHESION 20°.

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 PSI.
7. TIE RODS TO BE 3/4" SS 18-8 TYPE 304.

★ TO BE DESIGNED BY ENGINEER OF RECORD.

THRUST COLLAR – WATER AND RECLAIMED

NTS DATE: JULY 2021



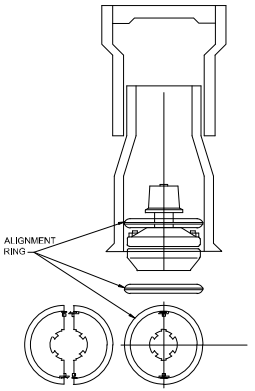
SIZE	MIN. COVER OF PIPE	CONCRETE PAD SIZE FROM LOWEST POINT OF FITTING
4"	24"	16"x16"x6"
6"	26"	18"x18"x6"
8"	30"	20"x20"x6"
*10"	36"	24"x24"x8"
*12"	40"	30"x30"x8"

* NOTE: 10" AND 12" REQUIRE TWO CLAMPS AND FOUR RODS PER SIDE.

VALVES INSTALLED PER MANUFACTURER'S RECOMMENDATION ON DIP AND PVC.

VALVE INSERT FOR A.C. PIPE

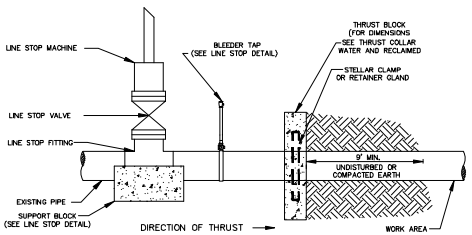
NTS DATE: JULY 2021



NOTES:
1. FOR ALL VALVES REGARDLESS OF SIZE & DEPTH.

ALIGNMENT RING

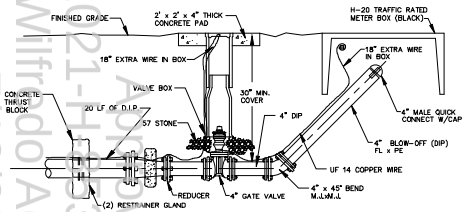
NTS DATE: JULY 2021



FORM & POUR SUPPORT BLOCK AND THRUST COLLAR ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED & BEFORE LINE STOP MACHINE IS MOUNTED.

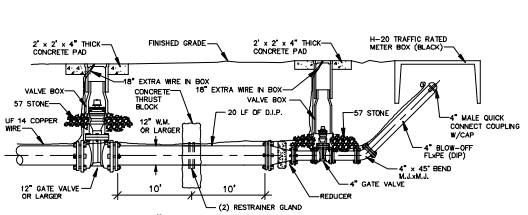
LINE STOP W/THRUST COLLAR

NTS DATE: JULY 2021



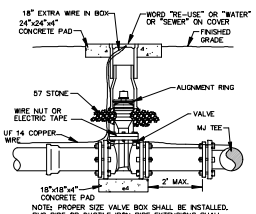
4" PERMANENT BLOW-OFF FOR 12" WATER MAINS & LARGER

NTS DATE: JULY 2021



4" TEMPORARY BLOW-OFF FOR 12" WATER MAINS & LARGER

NTS DATE: JULY 2021



NOTE: PROPER SIZE VALVE BOX SHALL BE INSTALLED. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

GATE VALVE AND FITTING

NTS DATE: JULY 2021

NOTES:
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2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

City of Cocoa, Florida
Utilities Department
Updated July 2021

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY LB | DRAWN BY LB | CHECKED BY JNN | APPROVED BY JNN

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

Standard Water Details

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ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
DRMP Inc.
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, Fl. 32953
Phone: 321.453.0010 Fax: 321.453.0669 WWW.DRMP.COM

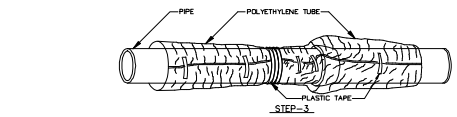
LICENSE No. 36836 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: N/A
DATE: Nov. 01, 2021
DRAWING: **C 12.0**

This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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2021-HLD3-00135
Wilfredo Acevedo
7/13/2022



FIELD INSTALLATION-POLYETHYLENE WRAP

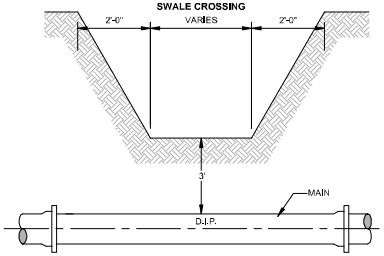
STEP-1 PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH.

STEP-2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF TWO-INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.

STEP-3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROXIMATELY THREE TO FIVE FOOT INTERVALS.

POLYETHYLENE WRAP

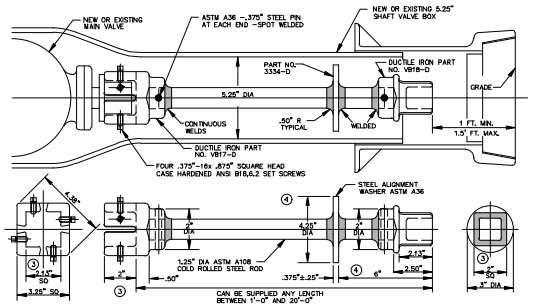
NTS DATE: JULY 2021



NOTES:
1. MAIN SHALL BE A CONTINUOUS LENGTH OF D.I. PIPE TO EXTEND 2 FEET MINIMUM EITHER SIDE OF THE DRAINAGE SWALE.
2. IF 1 OR MORE JOINTS OF PIPE IS REQUIRED, JOINT MUST BE RESTRAINED.

SWALE CROSSING DETAIL

NTS DATE: JULY 2021

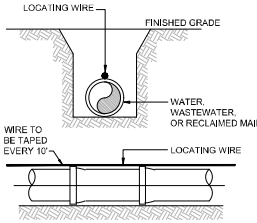


NOTE:
1. DUCTILE PARTS ARE TYPE 80-60-03 80/100,000 PSI TENSILE - ASTM A536
2. ASSEMBLY TO RECEIVE TWO COATS BITUMINOUS BASE BLACK PAINT
3. TOLERANCE + OR - .0625"
4. TOLERANCE + OR - .125"

TYPE "WVR" VALVE EXTENSION STEM
WSSC P&M/1.4 - APPLICABLE STOCK NO. 4840-0001-3

VALVE EXTENSION STEM FOR W.S.S.C. VALVE BOXES

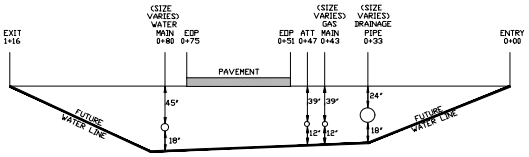
NTS DATE: JULY 2021



NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (UF 14 COPPER WIRE) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE TAPED EVERY 10' TO TOP CENTERLINE OF THE PIPE.
2. WIRE IS TO BE CONNECTED TOGETHER USING AN UNDERGROUND WIRE NUT WITH A SILICON BASED SEALANT.
3. SEE "LOCATING WIRE" SPECIFICATIONS.

LOCATING WIRE DETAIL

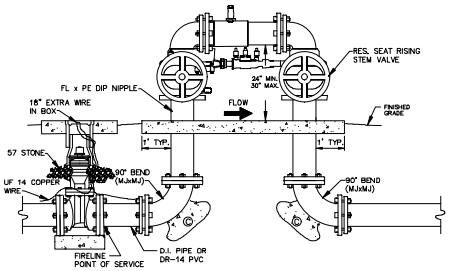
NTS DATE: JULY 2021



NOTES:
1. BORE PLAN TO SHOW SIZE, DEPTH, AND LOCATION OF ALL UTILITIES.
2. BORE PLAN TO BE IN ACCORDANCE WITH LATEST TECHNICAL PROVISIONS.
3. BORE PLAN MUST BE APPROVED BY ENGINEERING DEPARTMENT PRIOR TO ANY CONSTRUCTION.
4. DEPTH OF BORE PER BREVARD COUNTY OR FDOT JURISDICTION.

TYPICAL BORE PLAN

NTS DATE: JULY 2021

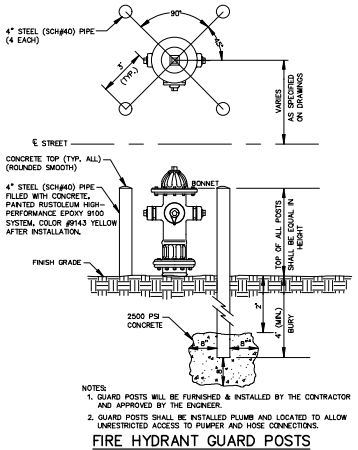


NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
3. ASSEMBLY TO BE PAINTED RUST-O-THANE RED NO. 9405-1611
4. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18-8 TYPE 304 STAINLESS STEEL.
5. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
6. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
7. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.

© REFER TO THRUST BLOCK NOTES & DETAILS.

"N" PATTERN DOUBLE CHECK DETECTOR ASSEMBLY

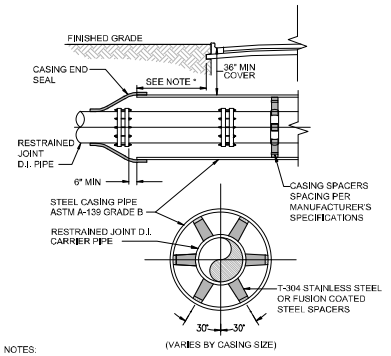
NTS DATE: JULY 2021



NOTES:
1. GUARD POSTS WILL BE FURNISHED & INSTALLED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. GUARD POSTS SHALL BE INSTALLED PLUMB AND LOCATED TO ALLOW UNRESTRICTED ACCESS TO PUMPER AND HOSE CONNECTIONS.

FIRE HYDRANT GUARD POSTS

NTS DATE: JULY 2021



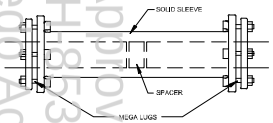
(VARIES BY CASING SIZE)

NOTES:
1. WHEN CONSTRUCTION IS WITHIN FDOT JURISDICTION, ADDITIONAL REQUIREMENTS OF THE UTILITY ACCOMMODATION GUIDE SHALL BE MET.
2. DISTANCE BETWEEN SPACERS TO BE PER MANUFACTURER'S SPECIFICATIONS.
3. NO FLOWABLE FILL BETWEEN THE ANULAR SPACE OF THE CASING OR CARRIER PIPE.

* SHALL BE A MINIMUM OF 6' OR MEET FDOT REQUIREMENTS, WHICHEVER IS GREATER. SEE "JACK AND BORE" SPECIFICATIONS.

JACK AND BORE

NTS DATE: JULY 2021



SOLID SLEEVE DETAIL

NTS DATE: JULY 2021

NOTES:
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City of Cocoa, Florida
Utilities Department
Updated July 2021

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY LB | DRAWN BY LB | CHECKED BY JNM | APPROVED BY JNM

Standard Water Details

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

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Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone: 321.453.0010 Fax: 321.453.0800 WWW.DRMP.COM
DRMP Inc.
LICENSE No. 36836 STATE OF FLORIDA
Joseph W. Mayer, P.E.
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PROJECT NO.: 21-0540.002
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DRAWING: C 13.0

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Approved
2021-HSB-30135
Wilfredo Acevedo
7/13/2022

SECTION 1 - GENERAL INFORMATION

1.1 GENERAL

These Technical Provisions and Standard Details identifies design, installation, inspection, and acceptance specifications to be used for water, wastewater, and reclaimed water systems that will be maintained and operated by the City of Cocoa. All potable water, wastewater, and reclaimed water mains and appurtenances must be installed in accordance with this Manual, the City of Cocoa Cross Connection Control Program Manual, the City of Cocoa Utilities Handbook, and the approved plans.

Contractor requirements include:

- Furnishing all labor, materials, tools and equipment necessary or incidental to the construction.
- Obtaining and paying for all permits, inspections, and other official fees in connection with the work.
- Arranging a pre-construction conference with the Engineering Inspection Division. **All fees must be paid prior to the pre-construction meeting. It is required that the pre-construction meeting be held prior to ordering materials.**
- Scheduling materials inspection (24-hour notice), open ditch inspection, pressure/leakage test, and final inspection.
- Provide all documents per the project requirement letter, including but not limited to As Built Drawings, Bills of Sale, Easements, etc.
- Make certain that no public water/wastewater lines are placed on private property.

Technical information provided by the City shall be used for informational purposes only. The Contractor and Engineer of Record are responsible for verifying field conditions.

Any deviation from these requirements must be approved in writing by the Utilities Director or his designee prior to commencement of construction.

Fees charged by the City are set by City Council by resolution and are listed on the appendix "Water Service Rates and Charges" made a part of the Utilities Handbook. Fees are subject to change without notice. The most current fees will be charged.

The Utilities Department and Engineering Division are located at 351 Shearer Blvd., Cocoa, Florida, 32922. The telephone number is (321) 433-8701; facsimile number is (321) 433-8708.

1.2 DEFINITIONS

The term **"approved equal"** is used to mean a part or item that has been approved in writing by the Technical Provision and Standard Details Advisory Committee or the Utilities Director. A written request must be made in order to have an item accepted as an approved equal. Written specifications on the part or item must be furnished with the request.

Approved Tapping/Linestop Contractor - A Contractor who has been approved by the Engineering Division to perform taps or linestops within the Cocoa Water System. A current list is maintained and available through the Engineering Division.

Backflow Preventer Assembly - A backflow preventer assembly, also called a cross connection control (CCC) device, is a mechanical or non-mechanical device used to prevent the flow of water from a non-potable source to the potable water distribution system. Approved backflow preventers are testable assemblies composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly, and fitted with properly located resilient seated test cocks.

Canal - A trench, the bottom of which is normally covered by water, with the upper edges of its two sides normally above water.

City - Means the City of Cocoa.

Collection Mains - Wastewater gravity mains.

Competent Person - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Distribution Main - Any water main twelve inches (12") and smaller.

Domestic - Means made or manufactured in the USA.

Drainage Ditch or Irrigation Ditch - A man-made trench which is dug for the purpose of draining water from the land or for transporting water for use on the land and which is not built for navigational purposes.

Force Main - Wastewater main under pressure.

Manual - City of Cocoa Utilities Technical Specification and Standard Details Manual.

Normal Working Day - Monday through Friday, excluding CITY holidays.

Normal Working Hours - Hours are between the hours of 8:00 a.m. to 5:00 p.m. of a NORMAL WORKING DAY.

Passivated - Treated or coated metal to reduce the chemical reactivity of its surface.

Stainless Steel - A steel alloy with a minimum of 10.5% to 11% chromium.

Substantial Completion - The point when the construction project has been finished to the point that the City of Cocoa can use the project for the purpose it was intended.

Swale - A manmade trench which:

A. Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than three feet horizontal to one foot vertical;
B. Contains contiguous areas of standing or flowing water only following a rainfall event;
C. Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake;
D. Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area to prevent erosion and reduce pollutant concentration of any discharge.

Technical Provision and Standard Details Committee - Committee whose members shall consist of the manager, or their designee, of the following UTILITIES staff: Engineering, Inspections, Water Field Operations, and Sewer Field Operations. The committee evaluates and proposes revisions for the design standards, specifications, drawings, products and procedures for the Manual.

Transmission Main - Any water main sixteen inch (16") and larger. Fourteen-inch (14") pipelines are not acceptable.

Utilities - Utilities Department of the City of Cocoa, Cocoa, Florida, and/or its designated representative(s).

Utilities Handbook - The City of Cocoa Utilities Handbook produced by the Customer Service Division of the Finance Department.

Whenever a specification from a specific source is cited, the most current revision of that specification will be used. **The word "shall" is mandatory, and the word "may" is permissive.**

Unless otherwise specified, **"City"** means City of Cocoa; **"Utilities Department"** means City of Cocoa Utilities Department; **"Engineering Division"** means City of Cocoa Utilities Engineering Division, **"Inspections or Inspector"** means City of Cocoa Utilities Engineering Inspections Division.

1.3 ABBREVIATIONS

American Association of State Highway and Transportation Officials - AASHTO
Asbestos Cement - AC
Association of PVC Pipe Manufacturers - Uni-Bell
American National Standards Institute - ANSI
American Society of Civil Engineers - ASCE
American Society of Mechanical Engineers - ASME
American Society for Testing and Materials - ASTM
American Water Works Association - AWWA
American Water Works Association Tapered Thread - CC
American Society of Sanitary Engineers - ASSE
Automatic Transfer Switch - ATS
City of Cocoa - CoC
Copper Clad Steel - CCS
Copper Development Association - CDA
Cross Connection Control - CCC
Dimension Ratio - DR
Double Check Backflow Assembly - DC
Double Check Detector Assemblies - DCDA
Dry Film Thickness - DFT
Ductile Iron Pipe Research Association - DIPRA
Ductile Iron Pipe - DIP
Engineer of Record - EOR
Florida Administrative Code - FAC
Florida Department of Environmental Protection - FDEP
Florida Department of Transportation - FDOT
Florida East Coast Rail Road - FECRR
Foundation for Cross-Connection Control and Hydraulic Research - FCCCHR
Flange - FL
Factory Mutual - FM
High-Density Polyethylene - HDPE
Horizontal Directional Drilling - HDD
Jack and Bore - J&B
Maintenance of Traffic - MOT
Manual on Uniform Traffic Control Devices - MUTCD
National Association of Corrosion Engineers - NACE
National Fire Protection Association - NFPA
National Sanitation Foundation - NSF
National Standard Thread - NST
Non-rising stem - NRS
Original Equipment Manufacturer - OEM
Outside Screw and Yoke - OS&Y
National Pollution Discharge Elimination System - NPDES
Plain End - PE
Polyvinylchloride - PVC
Precautionary Boil Water Notice - PBWN
Portable Changeable Message Signs - PCMS
Pre-stressed Concrete Cylinder Pressure Pipe - PCCP
Project Manager - PM
Pounds per Square Inch - PSI
Raised Pavement Marker - RPM
Reduced Pressure Backflow Assembly - RP
Reduced Pressure Detector Assembly - RPDA
Reinforced Concrete Pressure Pipe - RCP
Stainless Steel - SS
Technical Provision and Standard Details - TPSD
Traffic Control Plan - TCP
Underwriters Laboratories - UL
Unified Numbering System - UNS
Variable Frequency Drive - VFD

SECTION 2 - WATER - POTABLE AND RECLAIMED

2.1 WATER MAIN CROSSINGS

2.1.1 GENERAL

In all cases where sanitary gravity or force mains cross water mains the crossing shall meet the vertical and horizontal separation requirements of FAC Rule 62-555.314. When separation requirements cannot be met, the Engineer of Record must propose an alternative solution that meets the requirements of FAC 62-555.314 for approval by the Engineering Division. The water main should cross above the sanitary main, when the water main must cross below the sanitary main, the minimum separation shall be 12 inches.

2.2 MATERIALS SPECIFICATIONS

2.2.1 PIPE

2.2.1.1 Polyvinyl Chloride Pressure Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (sizes 4" through 12") will be cast iron pipe equivalent outside diameter Class 235 (DR 18) conforming to the American Water Works Association's (AWWA) specification C900 and will be blue or white in color. Pipe will be in standard 20-foot lengths. All joints will be of the elastomeric-gasket type with thickened, integral solid-wall bell or coupling with the same DR as the barrel. All PVC pipe and couplings will bear the UL label and NSF approval for potable water.

2.2.1.2 Fusible Polyvinyl Chloride Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (size 4" through 12") will be cast iron pipe equivalent outside diameter and a pressure rating of 235 PSI (DR 18) conforming to AWWA specification C900 and will be blue or white in color. Fusible PVC pipe shall be supplied by Underground Solutions, Inc. It shall be installed in accordance with the suppliers' specifications. All PVC pipe will bear the UL label and NSF approval for potable water.

2.2.1.3 Ductile Iron Pipe

Ductile iron pipe will be cement-lined pressure Class 350 for 12-inch diameter and smaller and Class 250 for 16-inch and larger conforming to AWWA specification C151. Water main and storm drain crossing conflicts will be properly designed by the project engineer and approved by the Utilities Department prior to installation. Water mains that are less than 10 feet apart from building foundations or other permanent objects will be ductile iron pipe. In no case will water mains be located less than 5 feet from foundations. The above distances will be doubled for water mains larger than 8" in diameter. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be blue for water mains.

2.2.1.4 High Density Polyethylene (HDPE) Pipe

HDPE pipe is generally not accepted in the City of Cocoa water system, except as a carrier pipe for a pressurized utility main.

2.2.1.5 Reclaimed Water

PVC pipe installed in reclaimed water systems will be Class 235 (DR 18) conforming to AWWA specification C900 and will be purple in color. Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 16" and larger, provided 3 feet of cover can be maintained. Where cover is less than 3 feet, pressure Class 350 is required. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be purple for reclaimed water mains.

2.2.2 VALVES, VALVE BOXES, AND VALVE EXTENSIONS

2.2.2.1 Resilient Seat Gate Valves, 4" - 36"

Resilient seat gate valves will have mechanical joint ends as manufactured by **American Flow Control; AVK; M&H; U.S. Pipe; Clow; Mueller** or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 or C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be fully encapsulated to gate. Valves will have 18-8 Type 304 Stainless Steel bolts and nuts. The interior and exterior of the valve body will be fusion-bonded epoxy coated in accordance with AWWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the resilient seat is not acceptable. Valves will be supplied with 2"-square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction. Valves 16" and larger will have Bevel Gear Operators. For gate valves 16" and larger to be stood up straight, the 2" operating nut must have 12" of cover. Engineer of Record or Contractor must demonstrate the 12" of cover over the 2" operating nut can be achieved by showing all pertinent dimensions. Tapping valves shall have a centering ring.

2.2.2.2 Butterfly Valves, 16" and Larger

Butterfly valves shall be used for above ground service. Butterfly valves shall have flanged ends, be rubber seated, 90o tight closing type, short body. The interior and exterior will be fusion-bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of 316 Stainless Steel. Body dimensions and minimum shaft diameter will be in accordance with Tables 1 and 3 of AWWA specification C504. The valve seat will be of molded natural or synthetic rubber, will be mechanically secured to the disc or to the valve body, and will mate against a stainless-steel seat surface. The gear ratio will be such as to require not more than 50-foot pounds of input torque to operate the valve against the worst case of a water flow velocity of 10 feet per second at a pressure of 100 psi differential. A torque-limiting device will be supplied if the allowable operator input is less than 450-foot pounds. Butterfly valves will have a factory installed hand wheel. The valve will open when the operator nut is turned counterclockwise. **Butterfly valves will not be used for buried service.**

2.2.2.3 Valves, 2"

Two-inch valves for use with the 2" blow-off gate valve will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all EPA and DEP requirements regarding lead and zinc contents. Brass fittings and 2" brass wheel valves are shall be used on blow-offs. All valves must be manufactured in the U.S.A.

2.2.2.4 Valve Boxes

Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by East Jordan Iron Works or Tyler and must have 5-1/4" minimum inside diameter. Cast iron valve boxes will consist of a circular cast iron top and bottom section. The depth must be determined, and the appropriate valve box must be installed. No PVC or Ductile is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot. A Valve identification plate engraved to indicate the type, size, and number of turns will be securely anchored to the concrete pad. Valve identification plates for valves 12" and larger will also indicate the torque necessary for actuation.

2.2.2.5 Valve Extensions

If the depth of the valve nut is greater than 48" below grade, or 30" below grade and under the water table, a valve extension stem will be required. The extension will have a centering collar and will be mechanically attached to the valve operating nut, such as extensions manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Engineering Supervisor or his/her designee.

2.2.2.6 Valve Box Debris Shield

All buried valves 4-inch through 12-inch requiring a valve box shall be furnished with a valve box shield (alignment device). The device shall minimize debris infiltration and center the valve box over the operating nut. The device shall be of HDPE or plastic and colored white or black. It shall be furnished in two pieces that will lock together under the operating nut without requiring the removal of the operating nut. The device shall not affect the operation of the valve. No one-piece device will be accepted. The device shall be **Box Lok, American** or approved equal.

2.2.2.7 Insert Valve Specification

The Insert Valve shall conform to the following:

The Ductile Iron 250 p.s.i.g. Insert Valve shall be a Resilient Wedge Gate Valve designed for use in potable water, raw water, reclaimed water, wastewater and backflow control systems. The host pipe shall not be a permanent component of the Insert Valve. The ductile iron body, bonnet, and wedge provide strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Insert Valve shall be ductile iron construction meeting ASTM A536 Grade 65-45-12.Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The Insert Valve shall have a 250 psig maximum working pressure. The pressure rating markings must be cast into the body of the insert valve. The construction of the Resilient Wedge shall comply with AWWA C509 requirements. The ductile iron wedge shall be fully encapsulated with EPDM rubber by a high pressure and high temperature compression or injection mold process. The resilient wedge shall seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. The Resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel. The insert valve is fully epoxy coated on the interior and the exterior. Valve shall be coated with a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The stuffing box, operating stem and resilient wedge (complete bonnet and all moving parts) shall be removable, repairable and or replaceable under pressure.

See "Appendix A" Approved Materials for approved Insert Gate Valves.

2.2.3 BACKFLOW PREVENTERS

2.2.3.1 General

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly as required in the "City of Cocoa Cross Connection Control Program Manual". Backflow preventer assemblies shall be in accordance with AWWA specification C510, ASSE 1048, UL 1469, and as listed in "Appendix A" of this document. All backflow preventers shall be installed per Standard Details in "Appendix B". Backflow preventers on fire line and commercial services shall have test certifications submitted and approved prior to final inspection.

Backflow preventers will have interior fusion bonded epoxy coating 5 to 12 mils and will be installed above grade in accordance with manufacturer's recommendations on a concrete slab adjacent to the meter. Check valves must have bronze seats.

Commercial Services: Cross connection control device required for commercial service, including multi-family residences, shall be a reduced pressure (RP) backflow preventer unless otherwise approved by the Engineering Division.

Residential Services: Cross connection control device required for residential service shall be a dual check backflow preventer.

Construction Sites: Cross connection control device required for temporary construction jumpers shall be a double check backflow preventer. The Contractor shall provide test certifications on the jumper backflow preventer before the jumper is placed into service.

2.2.3.2 Fire Services

Cross connection control devices for fire line systems shall be double check detector assemblies (DCDA) or reduced pressure detector assemblies (RPDA). DCDA and RPDA shall meet the requirements of the Florida Building Code and must be supplied with a ¾-inch or larger bypass assembly. DCDA will be accepted as a complete approved assembly in accordance with the section on "Backflow Prevention and Cross-Connection Control" in the Utilities Handbook. The Engineering Division will inspect the interior of the DCDA prior to installation. DCDA must be installed horizontally above ground in a grassed or non-traffic area. The DCDA will be installed with 24" minimum and 30" maximum clearance from finished grade. "N" shaped DCDA will be accepted on a case-by-case basis. Fire lines requiring an RPZ will be handled on a case-by-case base. The Engineering Division shall paint the DCDA, to be paid for by the Developer/Contractor.

2.2.3.3 Meter Station Backflow Preventer

Backflow Preventers for the large meter stations (3-inch and larger) are a Reduced Pressure Zone Assembly and manufactured in accordance with AWWA C511. The assembly will be installed so as the relief valve opening will be a minimum of 12" above concrete slab. If the meter station is in a planter, the top of the planter is considered the flood rim and the relief valve opening shall be 12" above the concrete slab. The Engineering Division shall paint the meter station assembly, to be paid for by the Developer/Contractor.

2-inch meter stations may be allowed on a case-by-case basis as approved by the Engineering Division.

2.2.3.4 Backflow Preventer Certification Test

The Contractor will provide test certifications on the jumper backflow preventer before jumper is placed into service. Backflow preventers on fire-line and meter stations will have test certifications submitted and approved prior to final inspection.

2.2.4 FITTINGS

All fittings must be of the mechanical joint type with an approved joint restraint, or push-on joint with a gasket joint field restraint system. All fittings must be manufactured in the U.S.A.

2.2.4.1 Cast Iron

Cast iron fittings will be AWWA specification C110; Class 250, cement lined with inside seal coating. The fittings will be bituminous coated on the outside and be wrapped with 6 mil polyethylene (sealed with tape). Cast iron fittings are only to be used in larger applications where ductile iron fittings are not available.

2.2.4.2 Ductile Iron, 4" - 16"

Ductile iron compact fittings (sizes 4" through 16") must conform to AWWA specification C153. Ductile iron compact fittings will be mechanical joint with an interior cement lining with seal coating and an exterior bituminous coating. All fittings will be wrapped with 6 mil polyethylene (sealed with tape).

2.2.4.3 Bolts

All buried mechanical joint bolts and nuts must be CORTEN Steel. All above ground bolts and nuts for flanged fittings must be 18-8 Type 304 stainless steel. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.

2.2.4.4 Tapping Sleeve

Tapping sleeves on mains 4" to 12" in diameter will be all Stainless Steel Sleeves.

The All Stainless Steel Sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and full circumferential gasket to provide 360° seal around the pipe. The tapping sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage.

Sleeves on mains 16" to 24" in diameter will be fabricated steel with O-ring seal, fusion bonded, epoxy coated with 304 stainless steel nuts and bolts or M.J. ductile iron body. Sleeves on mains larger than 24" will be handled on a case-by-case basis.

Tapping Sleeves for reinforced concrete mains will be handled on a case-by-case basis. The sleeves will have a fusion-bonded epoxy coating on the entire body and throat assembly. The straps and bolts shall be 18-8 Type 304 stainless steel.

The tapping valve must have centering ring and conform to Section 2.2.2.1 "Resilient Seat Gate Valves" in these Technical Provisions.

Tapping saddles to be placed on asbestos concrete (AC) pipe shall be an **JCM A432** All Stainless Steel Sleeve or equal.

2.2.4.5 Line Stop Sleeve Specifications

Sizes 4" through 12"

Sleeve/Body
The entire Line Stop sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and provide 360° seal around the pipe. The line stop sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage. Outlet on sleeve will be full port, i.e. on 8" sleeve, outlet will be 8", on 6" sleeve, outlet will be 6".

Bolts, Nuts & Washers
18-8 Type 304 Stainless Steel, the bolts shall be track head type and furnished with permanently lubricated heavy-hex nuts and stainless washers.

Gasket
The full circumferential gasket shall be molded of synthetic rubber compounded for use with water salt solutions, mild acids, bases and sewage. The gasket shall have a gridded surface, be a full 1/4" thick with 304 stainless steel bridge plates molded flush into the gasket and have a raised hydromechanical outlet seal to seal against line surges and water hammer.

Pressure Rating
The sleeves shall be rated at 150 PSI hydrostatic with a test pressure of 200 PSI on pipe with a full circumferential break.

Line Stop Sleeves shall be a **JCM A440 Line Stop Sleeve** or approved equal.

2.2.5 FIRE HYDRANTS

Fire hydrants must be manufactured in accordance with AWWA specification C502. Hydrants must have bronze-to-bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Fire hydrants will have 18-8 Type 304 Stainless Steel bolts and nuts (bonnet, traffic flange and shoe).

Hydrants will have a minimum 5-1/4" main valve opening, with one 4-1/2" pumper nozzle, and two 2-1/2" hose nozzles. Nozzles to have NST threads. Stem couplings are to be cast iron or stainless steel. The upper valve plate must be bronze. The hydrant shoe will be coated inside with fusion-bonded epoxy, 6 mil minimum. All hydrants will be painted at the factory with Rustoleum high-performance epoxy 9100 system, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow. City crews will apply finish paint to each new fire hydrant after the Contractor has paid the appropriate fees.

Finish grade is to be established and the proper length hydrant is to be installed by the Contractor prior to acceptance by the City. All nozzles will be a minimum of 18" and a maximum of 24" above finished grade. A 6" mechanical joint hydrant connection will be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on 6" plain end branch. The Contractor will not be allowed to install risers on hydrants. At final inspection, if it is determined that a fire hydrant is not at grade, the Contractor shall purchase a proper length hydrant and install it under the direction of the Engineering Division.

2.2.6 SERVICE CONNECTIONS, 3/4"-2"

All service connections will be single connections. Services that are 3/4" and 1" are to be type K annealed temper soft copper. All connections are to be of the flare type. 1-1/2" and 2" services are to be of type K drawn temper in straight lengths or annealed temper if furnished in coils. Absolutely no lead-based solder joints will be accepted. Any repairs of service lines will be by flare-to-flare coupling. No compression fittings will be accepted. Taps in the pipe will be the same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shellcutter designed to cut PVC pipe, and the PVC plug will be removed.

Brass goods furnished under this specification shall be new and unused. All fittings shall conform to ANSI/AWWA Standard C800, latest revision.

All brass components in contact with potable water must be made from either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of .25% by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.2 are not approved. All service fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61. All fittings shall be stamped or embossed with a mark or name indicating that the product is manufactured from the low-lead alloy as specified above.

Brass saddles shall be made from CDA/UNS C83600 and are exempt from the "no lead" requirement.

2.2.6.1 Saddles

Saddles must be used for all connections to PVC, AC and D.I. pipe. Saddles must be all brass with "CC" threads as manufactured by **Mueller Company**, or **Ford Meter Box Company.** The pipe sizes for these manufacturers are noted below (approved materials are also listed in "Appendix A"):

MUELLER: For ductile iron pipe sizes 4" to 12", for 3/4" and 1" services, the single strap design must be used. For 1-1/2" and 2" services, the BR 2 B double strap design must be used.

FORD: For pipe sizes 4" to 12", for 3/4" and 1" services, the style 101B single strap design must be used. For 1-1/2" and 2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 3/4", 1", 1-1/2," and 2" services, the style 202B double strap design must be used.

An approved equal may be used in lieu of any of the above-listed designs/models.

2.2.6.2 Curb Stops, 3/4" - 2"

Curb stops 3/4" and 1" in size will be flare-by-meter coupling. **Curb stops must have locking wings and a swivel meter nut.** Curb stops that are 1-1/2" or 2" will be flare-by-meter flange with locking wing or an approved equal. All curb stops shall be centered in the meter box and installed in a horizontal position.

2.2.6.3 Corporation Stops, 3/4" - 2"

All corporation stops for water service ¾" thru 2" will be brass and have "CC" inlet threads and copper flare outlet. 2" Corporation stops for "jumpers" will be "CC"-by- F.I.P.

2.2.6.4 Meter Boxes

Meter boxes for radio-read meters must have a lid compatible with City's AMR meter antennae (4-1/2" round). Service locations will be permanently cut and painted on concrete curb or the street with a blue "W" for potable water or a purple "R" for reclaimed. Reclaimed services will be located at the opposite lot corner from water services where practical or with five feet minimum separation.

For larger 1-1/2 and 2-inch meters, 17" x 30" meter boxes shall be used.

Meter boxes shall have the appropriate ANSI/SCTE 77 load rating for their intended location: Meter boxes, located within paved ares subject to deliberate heavy vehicular traffic such as roadways, driveways, and parking lots shall be AASHTO H-20 load rated; otherwise, meter boxes shall be Tier 15 load rated.

Reclaimed Water services will be set in purple meter boxes of materials per above. They are also required to have a 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, which will be supplied. Tags will be inscribed, "RECLAIMED WATER DO NOT DRINK."

2.3 PROTECTION OF PROPERTY AND OBSTRUCTIONS

2.3.1 PROTECTION

Temporary supports and/or adequate protection and maintenance must be provided on all underground and surface structures encountered in the progress of the work. Structures that have been disturbed will be restored to a condition equal to their original state upon completion of the work.

2.3.2 OBSTRUCTIONS

All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans; however, Contractor is solely responsible for field verifying existing conditions. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans. Damage to other utilities will be at the Contractor's expense.

If the Contractor encounters any unforeseen obstructions during construction, the Contractor shall immediately cease work in that area and notify the Engineer of Record (EOR). The EOR shall design and provide detailed drawings to correct the situation. The drawings shall be submitted to the Engineering Division for approval. After approval by the Engineering Division, a set of approved drawings will be given to the contractor and they may resume work.

2.3.3 EXISTING ASBESTOS CEMENT WATERMAINS

In areas where asbestos cement water mains are existing, water main relocations or replacements may be necessary. If new construction of facilities is over, under, or near asbestos cement water mains, it shall require that the asbestos cement water main be changed out to polyvinyl chloride pipe or ductile iron pipe. All asbestos cement pipe that is replaced shall be removed and disposed of by the contractor unless specifically directed in writing by the City to abandon in place. New pipe material shall depend upon the type and location of the facilities being constructed. The Developers Engineer shall design the replacement and submit it for the Engineering Division approval. The Developer is responsible for all design, materials, labor, equipment, testing, and costs for the replacement. Contractor shall remove and dispose of AC pipe in accordance with FAC Codes 62-204.800 and 62-257.

2.3.4 ABANDONMENT OF ASBESTOS CEMENT PIPE

Where asbestos cement water mains have been directed by the City to be abandoned in place they shall be filled with a sand/cement grout by the contractor. Grout shall be injected within the pipe sections to be abandoned where the ends of the sections shall be capped and or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections to prevent the potential for future collapse. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

The Contractor shall provide standpipes and/or additional means of visual inspections as required by the City to determine if adequate grout material has filled the entire pipe section(s).

2.4 TRENCH PREPARATION

2.4.1 EXCAVATION

A trench will be opened so that the pipe can be installed to the alignment and depth required. It will be excavated only so far in advance of pipe placement as necessary. The trench will be excavated to the depth required to provide a uniform and continuous bearing support for the pipe or undisturbed ground. Bell holes will be provided at each joint to permit jointing to be made and inspected properly.

During excavation, if ashes, cinders, muck or other organic material considered unsuitable is discovered at the bottom of the trench at sub-grade, unsuitable material will be removed and backfilled with approved material. This material will be compacted in layers to provide a uniform and continuous bearing characteristic of that area's soil condition. Where the bottom of the trench at sub-grade consists of unstable material to such a degree that it cannot be removed and replaced with an approved material to support the pipe properly, a suitable foundation must be constructed. Excavated material will be piled in such a manner that it will not endanger work or obstruct natural watercourses, sidewalks or driveways. Fire hydrants under pressure, valve boxes, or other utility controls will be left unobstructed and accessible at all times. Gutters will be kept clear or other satisfactory provisions will be made for street drainage.

2.4.2 SHORING AND BRACING

Open cut trenches must be sloped, shored or braced as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work. Trench bracing may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. The use of a trenching box may be used in place of sheeting and bracing where appropriate. The Contractor is required to have a Competent Person designated and in charge at all times while workers are in the trench.

2.4.3 DE-WATERING

Excess water must not be allowed in the trench at any time. An adequate supply of well points, headers or pumps, all in first-class operating condition, may be used to remove the water. The use of gravel and pumps will also be an acceptable means of removing the water. The trench will be excavated no more than the available pumping facilities are capable of de-watering. Discharge from pumps will be accommodated in accordance with the St. Johns River Water Management District's requirements. The Contractor is responsible for obtaining all de-watering permits such as NPDES permit.

2.5 PIPE LINE CONSTRUCTION

2.5.1 GENERAL

All water mains, service lines, and appurtenances must be installed as specified on the approved plans and in accordance with the Standard Detail Sheet. Installation will conform to AWWA specification C600 except as modified herein.

Domestic water service can only come from a Distribution main. When water service is requested and the only water main available is a Transmission main, a large tap and section of pipe shall be installed on the Transmission Main for the water service.

The minimum size tap on a Transmission Main shall be a six (6) inch.

2.5.2 MATERIAL HANDLING

2.5.2.1 Precautions

Every precaution will be taken to prevent damage to pipe and piping materials during transportation and delivery to the work site. Under no condition will pipe be dropped, bumped, dragged or picked up by inserting forks into end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.

2.5.2.2 Damaged Materials

If in the process of transportation, unloading or handling, any pipe or fitting is damaged, it will be rejected and removed from the site.

2.5.2.3 Storage

Pipe fittings and specials will be stored in a manner which will assure the protection of the material from damage and which will keep it clean.

2.5.3 INSPECTION OF MATERIALS

Materials delivered to the job site will be subject to inspection by the Engineering Division prior to installation. Contractor shall notify Inspections 24 hours in advance. All materials found to be defective or not meeting specifications during inspection or during the progress of the work will be rejected and removed from the job site without delay. All materials delivered to the job site will be in accordance with the materials specifications. Materials not inspected by the Engineering Division prior to installation will be uncovered by the Contractor at their expense to verify compliance with these specifications. The Contractor will furnish copies of the packing list(s) for materials upon demand.

2.5.4 PIPE PLACEMENT

The bottom of the trench will not be excavated below the specified grade. If undercutting occurs, the bottom of the trench will be brought up to the original grade with approved material and thoroughly compacted, as directed by the Engineering Division. Before placing pipe into the trench, the outside of the spigot and the inside of the bell will be wiped clean, dry, and free from oil and grease. Every precaution will be taken to prevent foreign material from entering the pipe. During placement operation, no debris, tools, clothing or other material will be placed in the pipe.

All mechanical joints will be made up in strict accordance with the manufacturer's specifications. Beveled ends will be removed from PVC pipe entering a mechanical joint. The bell will be carefully cleaned before the gasket is inserted. Gaskets must be evenly seated, the gland placed in position with the bolts, and evenly tightened. All slip joints will be made up in strict accordance with the manufacturer's specifications.

After placing a length of pipe in the trench, the spigot end will be centered in the bell, the pipe forced home, brought to correct alignment, and covered with an approved backfill material. Ductile iron pipe will be backfilled to the centerline of the pipe and compacted to ninety-five percent (95%) of standard Proctor T-99.

PVC pipe will be backfilled in accordance with the manufacture's recommendations for the laying conditions.

Pipe will be installed with 30" minimum cover. Maximum cover of 42" will be accepted. Cover depth will be determined from proposed finish grade as indicated on the plans. At times when pipe placement is not in progress, the open ends of pipe must be closed by a watertight plug or other approved means. This provision will apply during the lunch hour as well as overnight. If water is in the trench, the seal will remain in place until the trench is pumped completely dry.

All underground water main shall meet the horizontal and vertical separation requirements in FAC 62-555.314 as related to sanitary force main and gravity main, reclaim mains, and storm water gravity and force mains.

Pipe installed under swales shall be D.I. and have 3 feet minimum cover. D.I. pipe to be centered on swale. If more than one joint of pipe is necessary, restrained joint pipe is required. See "Swale Crossing" detail and definitions.

Pipe installed under canal or drainage ditch shall conform to all FDEP requirements. Pipe shall be restrained joint D.I. pipe with gate valves on both sides of canal/ditch. D.I. pipe shall have 5 feet minimum cover with a concrete cap. See "Canal or Drainage Ditch Crossing" detail and definitions.

2.5.5 TRACER WIRE

For the purpose of electronically locating pipe after it is buried, tracer wire will be installed with all potable, reclaimed, and wastewater mains in accordance with the Standard Detail Sheet. The color of the wire insulation shall be the same color as the color code for the pipe being installed. Insulation color shall be blue for potable, purple for reclaimed, and green for wastewater.

Tracer wire for pipe installed by direct burial will meet the following requirements: #12 AWG (0.0808" diameter) fully annealed copper wire, rated at 30 volts, insulated with a 30 mil, high density, high molecular weight polyethylene (HDPE) insulation, rated for direct burial use.

Tracer wire for pipe installed by directional drilling or jack & bore will meet the following requirements: #10 AWG (0.1019" diameter) fully annealed, high carbon 1055 grade steel, high strength solid copper-clad steel conductor (HS-CCS) rated at 30 volts, insulated with a 45 mil, high density, high molecular weight polyethylene (HDPE) insulation rated for horizontal directional drill use, average with minimum break load of 1,940 pounds.

Branch connections and tracer wire splices shall be connected together using a direct-bury wire connector filled with a dielectric silicone sealant.

Tracer wire shall be properly grounded at all dead ends and shall be achieved by use of a 1.5 pound drive-in magnesium grounding anode rod specifically manufactured for this purpose.

The tracer wire shall be installed in such a manner as to be able to properly trace all pipelines without the loss or deterioration of signal or without the transmitted signal migrating off the tracer wire. The tracer wire shall be installed as a continuous single wire. Except for approved spliced-in repair or replacement connections, tracer wire shall be continuous and without splices from each tracer wire access point.

Tracer wire shall be installed in the same trench and inside bored holes and casing with pipe during pipe installation. It shall be secured and taped to the top of the pipe and 10' intervals. Protect wire insulation from damage during installation and backfilling. Wire insulation that is broken, cut or damaged shall be replaced. If the pipe requiring tracer wire is over 8' deep, special circumstances exist and the installation method must be submitted to the Engineering Division for approval.

Provide no less than 18" of coiled wire at access points and valve boxes. A run of tracer wire must run from the main to each fire hydrant and each fire hydrant must have one wrap of the wire around the barrel located at final grade.

Where existing tracer wire is encountered on an existing utility that is being extended or tied into, the new and existing tracer wire splice shall be connected using a direct-bury wire connector. At all main end caps, a minimum of 6' of tracer wire shall be extended beyond the end of the pipe, coiled and secured to the cap for future connections and shall be properly grounded.

After all of the trench backfill operations are successfully completed, and prior to final paving, the Contractor shall perform continuity and trace tests on all newly installed tracer wire in the presence of an Inspector. If the tracer wire is found to not be continuous after testing, the Contractor shall repair or replace the failed segment of the wire and retest for continuity. Tracer wire exposed during testing shall have the insulation restored with 30 mil rubber splicing tape. The Contractor shall be responsible for all costs to confirm, locate and repair any breaks in the tracer wire identified in the continuity test.

2.5.6 SERVICE LINE LOCATION

Service lines will be located at alternating lot lines outside the sidewalk within two feet of the right-of-way line as shown on approved plans or in a grassed area behind the curb if located in other than a subdivision.

Reclaimed service line is to be located adjacent to sewer cleanouts.

2.5.7 BACKFILLED MATERIAL AND INSPECTION

All backfilling material will be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, stones, or other material which is considered unsuitable. When backfill material is not specified on the plans, backfilling with the excavated material may be acceptable provided that such material is suitable for backfilling. Pipe should be backfilled as soon as possible to minimize the length of open trench. Pipe joints, valves, fittings, and thrust blocks will be left uncovered until inspection by the Engineering Division has been completed.

2.5.8 VALVES AND FITTINGS

All valves and fittings will be set and joined to the pipe in the proper location as shown on the plans. Valves should be installed outside of the pavement where practical. A roadway valve box will be provided for every valve. This valve box must not transmit shock or stress to the valve. Valve will have alignment ring installed and valve box centered and plumb over the wrench nut of the valve. The box cover is to be flush with the surface of the finished pavement or grade level as specified in the plans. A 24"-square concrete pad 4" in thickness will be poured around the valve box when it is located outside of pavement. A bronze or stainless steel disc will be cast into the pad for all valves 12" or larger. Valve nomenclature to be stamped into the disc will include the valve size, type, manufacturer's initials, number of turns, and direction to open the valve. (Example: 12" G.V. U.S.P. 20 c.c.w.)

All valves will be located within two feet of the tee, see detail "Gate Valve and Fitting."

When solid sleeves or couplings are used to join/tie-in pipelines, a Spacer Piece shall be installed if there is a gap in the pipeline.

2.5.9 FIRE HYDRANTS

All fire hydrants (hydrants) will be located as shown on the plans and marked on the pavement with a blue reflector. On unpaved streets, a blue reflector will be affixed to a post and placed as close to the edge of the road as feasible to be easily visible. The hydrants will be located in such a manner as to provide complete accessibility and in a manner so that the possibility of damage from vehicles or injury to pedestrians will be minimized. All hydrants must stand plumb and the bury line of the hydrant at the finished grade. Hydrants installed in State highway rights-of-way will be placed in accordance with any F.D.O.T. requirements. Contractors shall not turn or add risers to hydrants. All hydrants will be connected to the main in the manner shown on the Standard Detail Sheet. If the installation of the hydrant requires the hydrant to be greater than 40 ft. away from the fire hydrant valve, an additional valve shall be installed. If the fire hydrant valve ends up in asphalt of a major road (not subdivision) an additional hydrant valve regardless of distance shall be installed.

Continued on next sheet...

CITY OF COCOA

City of Cocoa, Florida
Utilities Department
Updated July 2021

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	LB
DRAWN BY	LB
CHECKED BY	JWM
APPROVED BY	JWM

Standard Technical Provisions

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

DO NOT SCALE THIS DRAWING — DIMENSIONS AND NOTES TAKE PREFERENCE

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Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 Fax:321.454.6885 WWW.DRMP.COM
DRMP, Inc.
JOSEPH W. MAYER LICENSE No. 36836 STATE OF FLORIDA PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: N/A
DATE: Nov. 01, 2021
DRAWING: C 14.0

This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Approved
7/13/2022

2.5,10 RESTRAINED PIPE JOINTS

The Engineer of Record shall provide a restrained joint detail on drawings submitted to the City for approval. Restraining is to apply to all new fittings installed as part of the job, including tapping saddles.

2.5.11 THRUST BLOCKS AND COLLARS

Restrained joint systems are the preferred method. Thrust blocks may only be used with the City's prior approval at bends, fire hydrants, and as specified on the plans, in accordance with the Standard Detail Sheet, Metal harnesses, tie rods, or clamps of adequate strength to prevent movement may be installed at locations where thrust blocks are not practical. Rods and clamps will be stainless steel. A 20-foot length of ductile iron pipe will be installed at all main endings and a concrete thrust collar will be poured around the pipe at a distance of 10 feet from the end of the joint. In lieu of concrete thrust collar, restrained pipe upstream of the proposed concrete thrust collar may be used.

2.5.12 JACK AND BORE, PIPE INSTALLED IN CASINGS

Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing that has been jacked and bored. The casing pipe will be six to eight inches larger than the outside diameter of the bells on the Ductile Iron pipe. The Engineer of Record will design the casing and bore to meet FDOT or FECRR requirements.

Ductile Iron pipe of the appropriate Class will be installed in the casing. Water mains must be pushed or pulled through the casing on stainless steel casing spacers with polyethylene skids attached to the pipe with stainless steel straps. The stainless steel casing spacers with polyethylene skids will be placed in accordance with manufacturer's recommendations. Casing spacers must be manufactured by Cascade or an approved equal. Restrained joints are required on mains installed inside casings.

JACK AND BORE

J&B installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards. J&B installed under FECRR shall conform to FECRR requirements.

2.5,13 HORIZONTAL DIRECTIONAL DRILLING

Only DIP and Flexible PVC may be horizontal directional drilled (HDD) under pavement or surface waterway crossings. The HDD pipe shall only extend to 10 feet on each side of the crossing. Then the piping will change to the standard piping material.

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards.

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:
   - The directional bore contractor (preferably the Field Superintendent)
   - The permitting agency
   - Engineer of Record
   - City Engineering Division Representative
   - Inspector for the project

ENGINEER OF RECORD

1. The EOR must include a scaled drawing showing the details of the directional drill on the construction drawings (i.e., profile, depth, location of existing utilities, maximum deflection angle).
2. If during construction it is determined a directional drill is required (and was not previously approved), the EOR is required to update the construction drawings and receive approval.

HDD CONTRACTOR

1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in "Appendix B") to the Engineering Division for approval. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan").
   - The entrance and exit location
   - Profile of the bored pipe
   - Proposed deflection angle for approach and exit
   - Documentation on the allowable max. & min. deflection for the particular pipe being used
   - All utilities including their depths and clearances from reamer
   - Width of the right of way
   - Pavement width
   - Length of the bore
   - The bore plan shall be signed by the responsible person in charge of the bore.
2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:
   - Water mains 12" and greater minimum clearance is 18"
   - Water mains 10" and less minimum clearance is 12"
3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.
4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.
2. The Inspector for the project will have a copy of the bore plan at the project site.
3. Prior to the HDD the Inspector shall verify that the materials at the project site are for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.
4. The Inspector shall verify the following prior to the commencement of the HDD:
   a. Verify that the HDD contractor has obtained his/her utility locates;
   b. Verify that all utilities have been visually spotted by the HDD contractor;
   c. Verify that the permitting agency has been notified of the HDD; and
   d. Witness the calibration of the sonde.
5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified.

COMPLETION OF THE BORE

1. A bore log shall be submitted to the Engineering Division after completion of the bore.

2.5.14 BLOWOFFS

Flushing blow-offs are to be installed and constructed as shown on the Standard Detail Sheet, Blow-off materials include 2" brass tee, nipples, brass threaded fittings, 2" brass angle wheel valve, and plastic meter box (purple for reclaimed). The plastic meter box is to be installed at grade over the wheel valve. The angle wheel valve will be with six inches of finished grade and will be plugged with a brass plug. 4" blow-offs will be installed on both potable water and reclaim main when mains 12" and larger and must be constructed as shown on the Standard Detail Sheet. A reclaimed tag will be installed on reclaimed main blow-offs in a reclaimed meter box.

Brass used in potable water shall meet the low lead requirements as set forth in Section 2.1.6 "Service Connections."

2.6 TIE-INS TO EXISTING SYSTEMS

2.6.1 GENERAL

The Contractor is not to operate any valve or remove any thrust block from City-owned mains except under direct supervision of an Inspector of the Engineering Division. The Contractor may need a post receiving the existing piping for the tie-in and may be required by the Engineering Division. All Contractors must follow the procedures listed below for connecting new mains to existing water systems.

2.6.1.1 Mains 8" and smaller

Existing tie-in valves will be operated and pressure tested to verify water tightness prior to the proposed tie-in. Existing system valves that are not water tight, shall have a new valve installed immediately adjacent (within 2') to the existing valve. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a City supplied meter and contractor supplied backflow preventer (double check) will be installed. The jumper will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The proposed tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. The Engineer of Record will be required to provide an executed FDEP certificate of completion prior to clearance. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of Engineering Division.

2.6.1.2 Mains 10" and Larger

The same procedure as noted for mains 8" and smaller will be used for mains 10" and larger except that the jumper will be utilized only for filling the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve can be opened for flushing and during chlorination only under the supervision of the Engineering Inspection Division. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of the Inspector.

2.7 TESTING

2.7.1 GENERAL

All newly installed pipe and services that have been backfilled must be tested in accordance with AWWA specification C651.

2.7.2 JUMPER METER ASSEMBLY

All filling, and flushing, must be accomplished through a jumper meter assembly. The jumper meter assembly shall consist of a meter (provided by the City, paid for by the Developer/Contractor), and a double check backflow preventer and galvanized piping (provided by the Contractor). The jumper meter assembly shall be installed by the Contractor under the direct supervision of the Engineering Division. After installation, the Contractor shall have the backflow preventer certified by a backflow technician, and a copy of the test report shall be provided to the Engineering Division.

1. A temporary jumper connection is required at ALL connections between existing active water mains and proposed new water main improvements, per the City of Cocoa Utilities Handbook. The only exception is the installation of a new fire hydrant involving a tap and using an anchoring swivel nipple. In this case, all fittings and fire hydrant SHALL be swabbed with a 100 ppm chlorine solution prior to installation.
2. The details for filling any water main from existing active water mains and for flushing of new mains up to 6" diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size can be found in **Section 2.7.3–Flushing and Swabbing.** The jumper connection shall be maintained until after filling, flushing, testing, and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies has been received. The jumper connection shall also be used to maintain pressure in the new mains at the time after disinfection and until the FDEP clearance letter is obtained. Adequate thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per Section II of AWWA C651.
3. Flushing of 10" diameter and larger water mains may be done through the tie-in valve, under the direct supervision of the Engineering Division. The Engineering Division will be notified in writing 48 hours prior to the flushing of said mains.

   The following procedures shall be followed:

   A. The existing tie-in valves shall be operated and pressure tested in the presence of the Engineering Division or Engineer to verify water tightness prior to the proposed tie-in. Valves which are not watertight shall be replaced or a new valve installed immediately adjacent to the leaking valve.

   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.

   - Flushing shall not be attempted during peak demand hours of the existing water main.
   - All downstream valves in the new system must be open prior to opening the tie-in valve.
   - Provide for and monitor the pressure at the tie-in point, the pressure in the existing main must not drop below 35 psi.
   - Tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is always greater than 10 psi.
4. The contractor shall provides documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation. The test shall be performed by a qualified backflow prevention technician.
5. Except as required to flush lines of greater than 6" in diameter, the tie-in valve shall remain closed. The tie-in valve shall remain closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the jumper connection. The corporation stops are to be closed and plugged with 2" brass plugs.
7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device fittings, valve, etc., shall be the responsibility of the contractor.

2.7.3 FLUSHING AND SWABBING

The City will provide an adequate volume of water for the filling, flushing, and testing of mains. The Contractor will notify the Engineering Division prior to flushing or filling mains. The pressure in the City's system will be monitored during the flushing, at no time should the pressure in the City's system be allowed to drop below 35 psi. Water used during flushing will be billed to the Contractor.

The City of Cocoa Engineering Division requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all leakages of a pipeline are pigged, the following procedures are to be used as a guide and in no way to be construed as means and methods.

The following terminology may be used in the discussion or operation of the pigging procedure.

Pigs shall be manufactured of a 2 pounds per cubic foot density open cell polyurethane foam body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a "wye", "tee", or simply inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a "wye", "tee" or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4"; 180 gpm for 6", 320 gpm for 8", How rates and jumper assemblies for mains 10" and larger will be determined by the Engineer of Record and approved by the City of Cocoa Engineering Division.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Engineering Division. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped below ground in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the pig into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of the Engineering Division to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete; if not, flushing will continue until water is clear.

2.7.4 HYDROSTATIC TEST

A blow-off or fire hydrant will be installed at the end of the pipeline under test. The line being tested will be slowly filled with water to the specified test pressure. Before applying the specified test pressure, all air will be expelled from the test section including service connections. If fire hydrants or blow-offs are not available at high elevations, taps at points of highest elevation will be made to facilitate air removal and testing. When testing is complete, the service lines installed for air removal must be removed.

The line must hold the 150-psi test pressure for a two-hour test period and must be performed under the direct supervision of the Engineering Division. Sufficient human resources are to be employed to ensure inspection. If the line fails to meet the test, it will be repaired and re-tested until the test requirements are satisfied. Line pressure will be maintained to within 5 psi of the test pressure at all times.

2.7.5 LEAKAGE TEST

A leakage test at 150 psi will be performed on all newly installed sections of pipe in accordance with AWWA C600 or C605 after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Size (in)	Allowable Leakage (gal/hour)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.00
14	1.16
16	1.32

$L = (SD\sqrt{P}) / 148,000$

L = testing allowance (maximum water), in gallons per hour
S = length of pipe in feet
D = nominal diameter of pipe, in inches
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge). P has the square root taken.

On small main extensions where the allowable leakage loss cannot be reasonable measured (.25 gallons or less), NO LOSS OF PRESSURE shall be allowed.

2.8 DISINFECTION AND BACTERIOLOGICAL TESTING

2.8.1 GENERAL

The Contractor must flush potable mains and arrange for complete disinfection by chlorination in coordination with the Engineering Division. Work will conform to applicable provisions of AWWA specification C651-14, "Disinfecting Water Mains". Water with a chlorine concentration of 50 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty-four hours. Transmission mains may be chlorinated using the "slug method", if the slug method is used, a detailed written procedure shall be submitted for approval. The main shall be dechlorinated to zero ppm chlorine before any flushing is performed. The method for dechlorination shall be approved by the Engineer of Record. After flushing, the water shall remain in the pipe for 24 hours before sampling. Service connections and tie-ins made before testing must be disinfected in accordance with AWWA specification C651. Samples will be taken by an Engineering Division approved laboratory. Two consecutive day samples are required for potable water mains. Water mains shall not be flushed between samples. The Contractor will be responsible for ALL bacteriological testing fees. Sample points are determined by the Engineer of Record and approved by FDEP. If samples taken do not demonstrate satisfactory results, re-chlorination and retesting of all sample locations is required at the Contractors expense.

CONTRACTORS WORKING ON EXISTING MAINS

When existing water mains are taken out of service by contractors, and water service to existing customers is interrupted causing a precautionary boil water notice (PBWN), the water main will be taken out of service on Monday or Tuesday. If for some reason the water main cannot be taken out of service on Monday or Tuesday, then the contractor at their expense shall have the laboratory perform bacteriological testing after normal working hours. This procedure is to lessen the time water customers are under a PBWN.

2.9 WET TAP CONNECTIONS TO EXISTING SYSTEM

2.9.1 GENERAL

Tap Being Performed	Parties Allowed to Perform the Tap
Taps 2" and smaller	• Approved tapping and line stop contractor • Contractor approved to tap mains solely for their own project – Contractor must perform 5 successful taps under the supervision of the inspection team and demonstrate possession of proper tapping equipment
Taps 2"-16"	• Approved tapping and line stop contractor
Taps 16" and greater	• Approved tapping and line stop contractor – Must tap requires independent review and approval – The tap must be performed under direct supervision of the engineering division
Taps on concrete transmission mains	• Contractor approved for taps on City of Cocoa transmission mains – Tapping plan must be submitted by the contractor prior to the tap

- On transmission mains, the approved tapping and line stop contractor will install the tapping saddle and valve. For all connections from 4"-12" the contractor may install tapping saddles under direct supervision of the Engineering Division.
- For all water main connections, the Contractor must obtain all required permits, provide a dry pit area, provide pit preparation including shoring and bracing, provide maintenance of traffic, provide all right-of-way restoration, and notify all utilities prior to construction. Connections must be completed under direct supervision of the Engineering Division.
- The list of approved contractors may be found on pg. 158.

Tapping saddles and valves supplied by the Contractor will be inspected by the Engineering Division prior to installation. The installed tapping saddle and valve must be tested with water at 100 psi for 15 minutes prior to tapping to ensure a watertight installation. Saddles installed on concrete pressure pipe will be tested 10% over line pressure. The pressure test will be performed by the Contractor and supervised by the Engineering Division. After the pressure test of the saddle has been completed, an Approved Tapping Contractor can tap the main.

2.9.2 TAPPING AND LINESTOP PROCEDURES

- ALL TAPS or LINESTOPS on City of Cocoa potable, reclaimed, and wastewater mains will be performed by an Approved Tapping Contractor.*
- Absolutely NO taps or linestops will be performed on Friday or any day preceding a holiday.
- Approved Contractors must disinfect tapping machine with AWWA approved disinfectant. This will be witnessed by the Inspector.
- The Contractor's tapping or linestop machines will be in good working order with appropriate bits and shell cutters for the type of pipe being worked on (i.e. shell cutter for PVC).**
- When taps or linestops are installed on Transmission Mains (> 12"), a preconstruction meeting will be held with the tapping contractor prior to ANY work being performed. The meeting may be held at the job site.
- Taps and linestops on the Utilities concrete pressure mains will be a two (2) day process and will require a pre-construction meeting. Day two submittal will need to be submitted for approval prior to work. Day one the saddle is installed and grouted. Day two tighten straps, cut pre-stressing wires. Install bleed and valve. Pressure test on saddle is 10% over line pressure for 30 minutes. After successfully completing pressure test, tap can be made.
- Toggle bolts will be required for PCCP taps to assure the entire coupon remains intact. The coupon must be provided to the City.
- ALL excavations must conform to current OSHA Trench Safety Act.
- The City of Cocoa reserves the right to remove any contractor from the approved list for any work considered substandard.

* Tap or linestop to include: Material, installation, labor, drilling, and testing

** Bit, boring bar, and adaptor

2.10 FINAL CLEAN-UP AND ACCEPTANCE

2.10.1 GENERAL

Upon completion of the work and before acceptance by the Engineering Division, the Contractor will meet all permit conditions, remove all debris, and complete sodding, sprigging, or seeding if required by the plans. The Contractor will leave all areas affected by operations in a neat and presentable condition.

Acceptance of completed work by the City will be contingent on the following work items completed to the satisfaction of the Engineering Division.

- Pressure Test
- Bacteriological Testing
- Restoration
- Payment of fees
- Approved As-Builts
- Easements
- Bill of Sale
- Fire line DCDA certification, as needed
- Final Inspection

2.11 FIRE SERVICE

2.11.1 GENERAL

All fire lines shall be installed by a licensed Fire Line Contractor in accordance with Florida Statute Chapter 633 and Rule Chapter 69A-46. Where wet pipe sprinkler service is used, an RPDA or DCDA will be installed in accordance with the "Backflow Prevention and Cross-Connection Control" Section of the Utilities Handbook and as described in the "City of Cocoa Cross Connection Control Program Manual".

Fire line backflow preventer assemblies shall be installed in non-traffic areas. Four to six bollards may be required.

2.12 CONNECTION OF BUILDINGS OVER FOUR FLOORS

2.12.1 GENERAL

Connection of domestic water supply systems serving buildings over four floors in height to the City's water distribution system will be subject to the following requirements:

- A future unit analysis will be performed by the Owner's engineer to determine peak domestic flow requirements. This analysis is to be provided to the Engineering Division.
- A water meter and a reduced pressure backflow preventer, sized in accordance with the domestic flow requirements, will be installed above ground at the developer's expense.
- Upon written request, the City will provide the site engineer with the minimum expected system pressure. The site engineer will be responsible for providing this information to the architect and building owner. Means for providing an adequate supply of domestic water and fire protection to all parts of the building during periods of minimum pressure will be the responsibility of the building Architect or Engineer of Record.
- Repair costs for damage to the water meter caused by flows exceeding its rated capacity will be charged to the customer.

2.13 BACKFLOW PREVENTERS

2.13.1 GENERAL

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly per the Standard Details in "Appendix B." Backflow preventer requirements for each service type are described in the "City of Cocoa Cross Connection Control Program Manual" and are summarized in Paragraph 2.1.3, "Backflow Preventers" and "Appendix A" of this document.

2.14 RECORD DRAWINGS

2.14,1 GENERAL

Record drawings are required for all systems to be accepted by the Engineering Division. Record drawings will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

- Location of all valves, service lines, fittings, and fire hydrants using at least two ties to permanent points (manholes, curbs, or storm water inlets). An acceptable station and offset system may be used for service lines and fittings only.
- Location of mains from property easement lines or edge of pavement at intervals of 300 feet.
- Elevations to the top of the water line at intervals of 300 feet and at all drainage and sewer main crossings. Benchmark to be shown on record drawings.
- Separation between reclaimed water or force mains and water mains, if they are installed within 10 feet of water mains.
- Water main material and distance of mains from buildings or structures within 20 feet of the water main.
- Distance from hydrant to hydrant valve.
- Pertinent easement information.
- A minimum of two benchmarks with northings and eastings in NAD83 or NAVD88 that are clearly labelled on each individual sheet. The benchmarks shall be placed away from the center of the drawing in opposite corners.
- Certification by the surveyor or Engineer of Record accepting responsibility for accuracy of information supplied on the record drawings and a statement identifying that all mains are within easements and/or public rights-of-way.
- Certification by the EOR certifying that the potable water and reclaimed system has been constructed in substantial conformance with approved construction plans and specifications and that all mains are within easements and/or public rights-of-way.
- The name "City of Cocoa" must appear on all record drawings survey information.
- The page number in the format "page x of y" needs to be on each page where x is the specific page number and y is the total number of pages.

Record drawings will be drawn at an engineering scale that is legible and readable as determined by City staff. Areas requiring additional detail may be enlarged as necessary. Right-of-way, easements, and lot lines will be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on DEP Form 62-555.900(6) that the system depicted on the record drawing was constructed in substantial conformance with approved plans and will function as intended. Lot, block numbers, and street names will be included. Provide two (2) sets of signed and sealed record drawings and one (1) digital file including all reference files in .DWG format (AutoCAD 2013 or higher).

NOTES:

1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

City of Cocoa, Florida
Utilities Department
Updated July 2021

NO.	DATE	REVISIONS DESCRIPTION	BY

DESIGNED BY: LB
DRAWN BY: LB
CHECKED BY: JNM
APPROVED BY: JNM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

Standard Technical Provisions

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERING · SURVEYING · PLANNING · GIS SERVICES
Certificate of Authorization No. 2648
100 Purnell Street Suite A, Merritt Island, FL 32953
Phone 321.453.3000 Fax 321.453.3800 WWW.DRMP.COM

DRMP Inc.
JOSEPH W. MAYER
LICENSE No. 36836 STATE OF FLORIDA PROFESSIONAL ENGINEER
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: N/A
DATE: Nov. 01, 2021
DRAWING: C 15.0

This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

C:\Dwg\Eng\412401 Lakes at Cocoa Grove\402208 Friday Road Utilities Plan\402208 11-16 DET ALS.dwg, 12/1/2021 3:27:25 PM, Cad-2

Approved
2021-H-853-00135
Wilfredo Acevedo
7/13/2022



NORTH

MASTER SITE DRAINAGE AND TEMPORARY DEWATERING PLAN

1"=100'

DESCRIPTION OF STANDARD SITE CONTROLS AND BEST MANAGEMENT PRACTICES

1. Erosion and Sediment Controls.
   a. Stabilization Practices are required to be routinely implemented by the Contractor. The Contractor should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated, shall be maintained by the Contractor. Stabilization measures shall be initiated as soon as practicable, but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased.
   b. The Contractor is responsible for any required structural practices necessary to divert flows from exposed soils, store flows, retain sediment on-site, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural BMPs shall be placed on upland soils unless a State of Florida wetland resource management permit or environmental resource permit issued pursuant to Chapter 373, FS, and applicable regulations of the FDEP or WMD authorize otherwise. The installation of these devices may be subject to Section 404 of the CWA.
   c. For common drainage locations that serve an area with more than 10 disturbed acres at one time, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent control measures, shall be provided where attainable until final stabilization of the site. The 3,600 cubic feet of storage area per acre drained does not apply to flows from offsite areas and flows from onsite areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. For drainage locations which serve more than 10 disturbed acres at one time and where a temporary sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, or equivalent sediment controls, are required for all sideslope and downslope boundaries of the construction area.
   d. For drainage locations serving less than 10 acres, sediment basins and/or sediment traps are recommended but not required. At a minimum, silt fences or equivalent sediment controls are required for all sideslope and downslope boundaries of the construction area.
2. Stormwater Management. The Contractor is responsible for the installation of BMP's during the construction process to control pollutants in stormwater discharges that will occur during construction and after construction operations have been completed. These controls shall be consistent with the performance standards for stormwater treatment as set forth in the Section 62- 40.432, F. A. C., the applicable stormwater or environmental resource permitting regulations of the FDEP or the appropriate WMD, and the guidelines contained in the Erosion and Sediment Control Manual (last update: July 2013), and any subsequent amendments. Structural BMPs shall be placed on upland soils unless a State of Florida wetland resource management permit or environmental resource permit issued pursuant to Chapter 373, FS, and applicable regulations of the FDEP or WMD authorize otherwise. The installation of these devices may be subject to Section 404 of the CWA. The FDEP generic permit only addresses the installation of stormwater management controls, and not the ultimate operation and maintenance of such controls after the construction activities have been completed and the site has undergone final stabilization. Under the FDEP generic permit, permittees are only responsible for the installation and maintenance of stormwater management BMPs prior to final stabilization of the site, and are not responsible for maintenance after stormwater discharges associated with industrial activity have been eliminated from the site. However, all stormwater management systems and BMPs shall be operated and maintained in perpetuity after final stabilization in accordance with requirements set forth in the State of Florida stormwater or environmental resource permit issued for the site.
   a. Such controls or best management practices may include: stormwater detention systems (including wet ponds); stormwater retention systems; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems which combine several practices (BMP treatment train). This project has been designed to attenuate post-development discharge from the site to pre-development levels (or below), in accordance with the applicable SJRWMD and local agency stormwater permits.
   b. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel for the purpose of providing a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. no significant changes in the hydrological regime of the receiving water).
   c. Temporary stormwater discharge measures during construction will include turbidity barriers at all wet outfall locations (see detail hereon).
3. Controls for Other Potential Pollutants.
   a. Waste Disposal. No solid materials, including building materials, shall be discharged to surface waters, except as authorized by a Section 404 permit and by a State of Florida wetland resource management permit or environmental resource permit issued pursuant to Chapter 373, F.S., and the applicable regulations of the FDEP or WMD.
   b. Off-site vehicle tracking of sediments and the generation of dust shall be minimized.
   c. The Contractor shall ensure compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
   d. The Contractor shall utilize a landscape professional to address proper application rates and methods for the use of any fertilizers and pesticides at the construction site, and set forth how these procedures will be implemented and enforced. Nutrients will be applied only at rates necessary to establish and maintain vegetation such that discharges will not cause or contribute to violations of State surface or ground water quality standards.
   e. The application, generation, or mitigation of toxic substances is limited to the minimum required for equipment operation and/or materials installation, and all toxic materials must be properly stored and disposed.
4. Approved State or Local Plans.
   a. The Contractor is also responsible for implementing procedures and requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by State, regional, or local officials. The Contractor must maintain a copy of all applicable permits at the site, and must be fully familiar with the requirements and conditions of each permit.
   b. The Stormwater Pollution Prevention Plans shall be amended to reflect any changes applicable to protecting surface water resources in sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by State, regional, or local officials for which the permittee receives written notice. Where the permittee receives such written notice of a change, the permittee shall provide a re-certification in the stormwater pollution prevention plan that the stormwater pollution prevention plan has been modified to address such changes.
   c. Dischargers seeking alternative permit requirements shall submit an individual permit application in accordance with Rule 62-620, F.A.C. to the local Department office, along with a description of why requirements in approved State, regional, or local plans or permits, or changes to such plans or permits should not be applicable as a condition of the individual permit.
5. Maintenance. The Contractor is responsible for routine maintenance of all best management practices and sediment controls, so that they will remain in good and effective operating condition, throughout the construction process.
6. Inspections. Qualified personnel (provided by the discharger) shall inspect all points of discharge into surface waters or to a municipal separate storm sewer system and all disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural controls, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.50 inches or greater. Where sites have been finally stabilized; such inspection shall be conducted at least once every month.
   a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the stormwater system. The stormwater management system and erosion and sediment control measures identified in the plans shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion and sediment control and stormwater treatment measures are effective in meeting the performance standards set forth in Section 62-40.432, F.A.C. and the applicable stormwater or environmental resource permitting regulations of the FDEP or appropriate WMD. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
   b. Based on the results of the inspection, all maintenance operations needed to assure proper operation of all controls, BMPs, practices, or measures identified in the stormwater pollution prevention plan shall be done in a timely manner, but in no case later than 7 calendar days following the inspection. If needed, the pollution prevention controls, BMPs, and measures identified in the plan shall be revised as appropriate, but in no case later than 7 calendar days following the inspection. Such modifications shall provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.
   c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the stormwater pollution prevention plan, and actions taken in accordance with paragraph V.D.4b of the permit shall be made and retained as part of the stormwater pollution prevention plan for at least three years from the date that the site is finally stabilized. Such reports shall identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the facility is in compliance with the stormwater pollution prevention plan and this permit. The report shall be signed in accordance with Part VI.C of this permit.
7. Non-Stormwater Discharges – Except for flows from fire fighting activities, sources of non-stormwater listed in the FDEP Generic permit that are combined with stormwater discharges associated with construction activity must be identified in the plan. Non-stormwater discharges from the site are prohibited unless specifically identified and permitted otherwise.
8. See also selected details on next sheet.
9. The contractor shall submit completed NPDES Notice of Intent (NOI) and Notice of Termination (NOT) forms to FDEP, with copies provided to the City.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME DATE

SEQUENCE OF CONSTRUCTION

A. Clearing and Grubbing

1. Controls for each portion of the site will be installed after the clearing and grubbing necessary for installation of the applicable control measure, but before the clearing and grubbing for the remaining portion of the site. Perimeter controls (such as silt fences) will be actively maintained until final stabilization of those portions of the site upward of the perimeter control.
2. Clearing and grubbing activities will generally proceed from the interior portions of the site, outward to the boundary lines, except for installation of perimeter controls (silt fences). This is to minimize dust and impacts to adjacent properties. When feasible, leave a 50 foot to 100 foot buffer of natural vegetation along the perimeter property lines, while completing work on interior portions of the site, and until such time as these perimeter areas are ready to be final graded and stabilized.

B. Excavation and Temporary Construction Dewatering

1. All excavation activities will be completed in accordance with the approved grading plans for the project. Construction stakeout by a qualified surveyor must be provided by the Contractor.
2. Retention lake excavation and/or site filling can not be completed until all perimeter controls are in place, such that erosion and/or siltation can not occur outside of the project boundaries.
3. Temporary construction dewatering activities will be accomplished in accordance with St. Johns River Water Management District (SJRWMD) regulations and the applicable permits. The Contractor is responsible for obtaining any required temporary dewatering permits.
4. Perimeter rim ditches and/or berming will accomplished where feasible to protect against off-site erosion.
5. Excavated and/or filled areas are to be stabilized via seed and mulch, sodding, or other means, as soon as practical.

C. Drainage System Installation/Utilities Construction

1. This phase of the work would include any required sewer installation and temporary dewatering as well as any required drainage pipe and inlet installation, waterline installation, reuse line installation, etc. All work to be performed by a licensed utility contractor.
2. As soon as practical, synthetic bales, silt fences, inlet protection, and other best management practices (as shown on this plan) are to be installed at all required locations.
3. All conditions and requirements of the applicable utilities installation permits will be the responsibility of the contractor. A copy of all permits must be maintained on-site. Contractor is responsible for confirming all required inspections during the course of the utilities installation process.
4. Contractor is responsible for maintaining perimeter controls and temporary site stabilization measures during the course of the utilities construction process.
5. Ordering of applicable testing per the permit requirements is the responsibility of the Contractor.

D. Roadway and Sidewalk Construction

1. This phase of the work includes all required hard surfacing for the project. Care is to be taken during this phase in order to minimize or eliminate any off-site discharge or spillage of concrete, asphalt, or other roadway materials. Concrete trucks and asphalt equipment are to be cleaned on-site in an approved and contained location. Ordering of applicable testing per the permit requirements is the responsibility of the Contractor.
2. Immediately upon completion of all roadways and hard surfaces for the project, adjacent disturbed areas shall be sodded or otherwise stabilized to prevent erosion. At least one strip of sod is required along the back of curb for all subdivision streets and new roadways.

SITE DESCRIPTION/GENERAL STATEMENT

This proposed project involves construction and development of the site improvements shown on these plans. Construction activities will generally include clearing and grubbing, excavation, filling, earthwork, utilities installation, stormwater management system installation, roadway and/or parking area construction, and final grading, stabilization and/or landscaping. Potential pollution sources include soils erosion and siltation, temporary dewatering, and discharges from construction equipment; i.e. oil, etc. Contractor is required to incorporate the site controls and BMPs described herein to minimize or eliminate the potential for off-site discharge of pollutants. Contractor is also required to sign a certification statement verifying compliance with the requirements of the FDEP Generic Permit for Stormwater Discharge from Construction Activities, prior to commencement of work.

SITE DATA

Total site area = 1.83 acres±
Total site area to be disturbed = 1.83 acres±

STORMWATER TEAM

: Weekly and/or 1/2 inch rain event inspections;
BMEG by Shanda Ryer, NPDES Inspector #24543

: Daily Site Monitoring;
(name of company) by (name of person), Superintendent

: Routine Maintenance & Repair;
(name of company) by (name of person), Project Manager

PUT PDF OF CONTRACTOR STATEMENT HERE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY LB
DRAWN BY LB
CHECKED BY JNM
APPROVED BY JNM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

DIMENSIONS AND NOTES TAKE PREFERENCE
DO NOT SCALE THIS DRAWING

DRMP
PROFESSIONAL CONSULTING & PLANNING SERVICES
Certificate of Authorization No. 2648
100 Purnell Street Suite A, Merritt Island, FL 32953
Phone: 321.453.3010 Fax: 321.453.6805 WWW.DRMP.COM
DRMP Inc.

JOSEPH W. MAYER LICENSE No. 36836 STATE OF FLORIDA REGISTERED ENGINEER

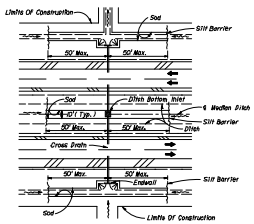
Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: AS SHOWN
DATE: Nov. 01, 2021
DRAWING: C 17.0

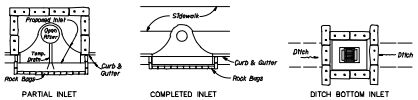
This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Reviewed 7/13/2022 00135

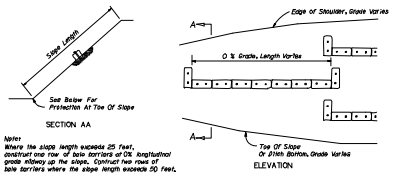


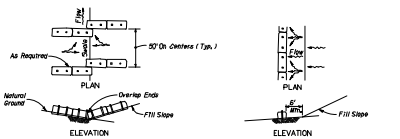
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES

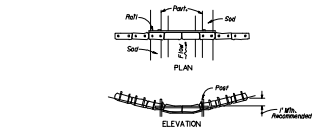


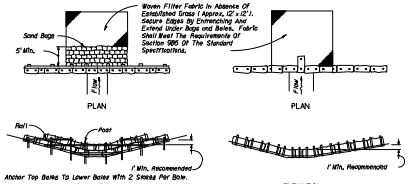
PARTIAL INLET COMPLETED INLET DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



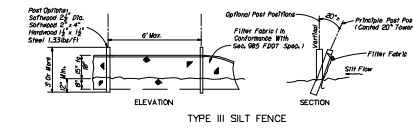


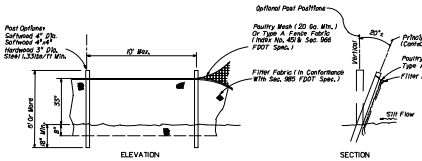


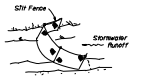


NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet I.
2. Bales shall be anchored with 2 - 1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if approved by the engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, L.F. The unit price shall include the cost of Filter Fabric for Type I and II Barriers. Sand bags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.



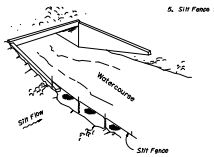




Silt fence protection in ditches with intermittent flow

NOTES FOR SILT FENCES

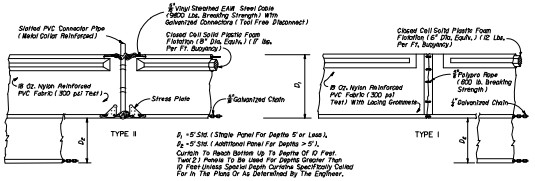
1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt Fence shall be in accordance with Chart I, Sheet I.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and height of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).





Silt fence protection around ditch bottom inlets

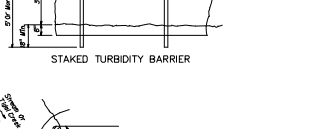
SILT FENCE APPLICATIONS

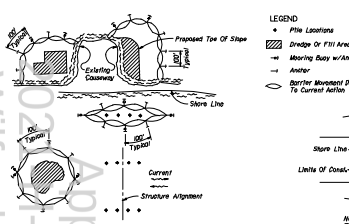


D1 =5' Std. (Staple Panel For Depths 5' or Less).
D2 =5' Std. (Additional Panel For Depths > 5').
Curtain To Reach Bottom Up To Depths Of 10 Feet. Twist 2:1 Pleats To Be Used For Depths Greater Than 10 Feet.Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS, ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

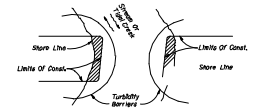
FLOATING TURBIDITY BARRIERS





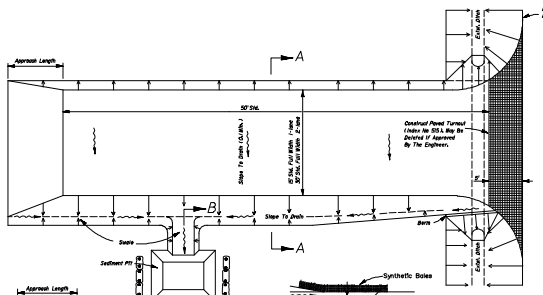
NOTES FOR TURBIDITY BARRIERS

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.



Notes
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Pupils in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS



SOIL TRACKING PREVENTION DEVICE TYPE A

GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where offsite tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barricade, flagging or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize offsite tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All material spilled, dropped, or washed onto public roads (including the STPD, shoulders or conveyance mat) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 including 901-2.3. Aggregates shall be FDOT #24, 1" if #24 is not available. The road aggregate or other suitable aggregate may be substituted with approval of the Engineer. Since washing excessive amount aggregate will flood off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of drainage area to the pit. If the STPD is located in a flat area, the following pit volumes will satisfy this requirement:
   10' x 10' -100 FT³ 20' x 10' -200 FT³
   As an option to the sediment pit, the width of the swale can be increased to obtain the volume. When the sediment pit is used, the swale shall be lined with filter fabric. The fabric shall be secure to stakes, by poles or silt fence and 1.5' placed along the entire length.
6. The swale plan grading the STPD shall have a 0.5% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent offsite tracking, the STPD shall be raked / picks when in use / to remove accumulated mud shortened thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracking.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall include all incidentals for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD, including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, and any other work as directed by the Engineer. Filter fabric, excavation, grading and aggregate bids or bids typically to be paid for under the contract unit price Synthetic Bales, L.F. Silt fence shall be paid for under the contract unit price For Staked Silt Fence, (LF).
10. The nominal size of a standard STPD is 10' x 50' unless otherwise shown in the plans. If the volume of entering and exiting vehicles warrants a 20' wide STPD be used, if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

NOTE
Contractor to provide erosion and sediment control in conformance with the "Erosion and Sediment Control Designer and Reviewer Manual" by FDOT/FDEP (July 2013).

NOTE
Contractor is responsible for obtaining the FDEP-NPDES Notice of Intent for the Temporary Construction Discharge Permit, including preparation of the SWPP Plan, and for conducting all required inspections and completing all reports associated with this construction permit.

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
LB	LB	JNM	JNM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
BREVARD COUNTY, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS, SURVEYORS & PLANNERS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone: 321.453.3010 Fax: 321.453.3809 WWW.DRMP.COM
DRMP, Inc.

LICENSE No. 36836 STATE OF FLORIDA
JOSEPH W. MAYER, P.E. PROFESSIONAL ENGINEER

Joseph W. Mayer, P.E.
State of Florida # 36836

PROJECT NO.: 21-0540.002
SCALE: N/A
DATE: Nov. 01, 2021
DRAWING: **C 18.0**

This item has been digitally signed and sealed by Joseph W. Mayer, P.E., on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Approved
D21-00135
Wilfredo Acevedo
7/13/2022

BREVARD COUNTY RIGHT-OF-WAY PERMIT

BOARD OF COUNTY COMMISSIONERS

Phone: (321) 637-5437
Inspections:(321) 633-2079

PERMIT #: 21RW01502
ISSUED: 11/02/2023
EXPIRES: 05/18/2024

BREVARD COUNTY PUBLIC WORKS RIGHT-OF-WAY AND EASEMENT PERMIT
PERMIT TO BE POSTED AT JOB

SITE ADDRESS:FRIDAY ROAD SOUTH OF JAMES RD.

SUBDIVISION NAME:
DESCRIPTION OF WORK: CONSTRUCT A PORTION OF WATERMAIN WITHIN FRIDAY ROAD R/W TO CONSIST OF CONNECTING TO AN EXISTING 12"WM JUST SOUTH OF JAMES RD. AND INSTALLATION OF 1,131 OF 12" PVC WM & 275 IF OF 14" HDPE WM ARE PROPOSED; MOST BY DIRECT BORE METHOD.

OWNER: CITY OF COCOA / KATHERINE D. ENNIS, P.E.,
PHONE:(321)433-8722
OWNER ADDRESS: 351 SHEARER BOULEVARD
COCOA FL 32922

APPLICANT/CONTRACTOR: DRMP, INC. / JOESPH W. MAYER, P.E.
PHONE:(321)453-0010
ADDRESS: 100 PARNELL STREET
MERRITT ISLAND FL 32953

BY ACCEPTANCE/ISSUANCE OF THIS PERMIT, THE PERMITEE AGREES TO THE TERMS AND CONDITIONS OF THIS PERMIT. PERMITEE RESPONSIBLE FOR DAMAGES TO ROAD/EASEMENTS DURING CONSTRUCTION.

OPEN PITS MUST BE COMPLETED WITHIN 10 DAYS OF EXCAVATION. NO EXCAVATION WITHIN 4 FT OF EDGE OF PAVEMENT.

RESTORE AND SOD ALL AREAS DISTURBED BY CONSTRUCTION IN COUNTY RIGHT-OF-WAY OR EASEMENT.

MAINTAIN PROPER MAINTENANCE OF TRAFFIC FOR THE ROADWAY AND SIDEWALKS PER FDOT DESIGN STANDARD, LATEST EDITION.

PERMIT MUST BE ON-SITE FOR ALL INSPECTIONS. IF PERMIT IS UNAVAILABLE ON-SITE, THE SCHEDULED INSPECTION WILL NOT BE PERFORMED AND YOU WILL BE ASSESSED A $75.00 REINSPECTION FEE WHICH WILL BE DUE PRIOR TO RESCHEDULING.

RIGHT-OF-WAY INSPECTIONS OFFICE MUST BE NOTIFIED 48 HOURS PRIOR TO START DATE ON UTILITY CONSTRUCTION AND COMMERCIAL PROJECTS. FOR COMMERCIAL SITE AND RIGHT-OF-WAY INSPECTIONS, PLEASE CALL (321) 633-2079.

RESIDENTIAL PRE-POUR AND FINAL INSPECTIONS MUST BE CALLED IN 24 HOURS IN ADVANCE AND BY 4:30 PM TO BE INSPECTED THE FOLLOWING BUSINESS DAY. PHONE (321) 633-2079.

APPLICANT MUST COMPLY WITH F.S.556 FOR UTILITY LOCATION INFORMATION.

NORMAL WORKING HOURS ARE FROM 7:00 AM TO 6:00 PM MONDAY-FRIDAY. AFTER HOURS INSPECTION RATES WILL BE ACCESSED AT $100.00 PER HOUR, WITH A MINIMUM OF 4 HRS. ALL AFTER HOURS INSPECTION REQUESTS MUST BE SUBMITTED IN WRITING TO BREVARD COUNTY PUBLIC WORKS ENGINEERING A MINIMUM OF 72 HRS PRIOR TO START OF AFTER HOURS WORK.

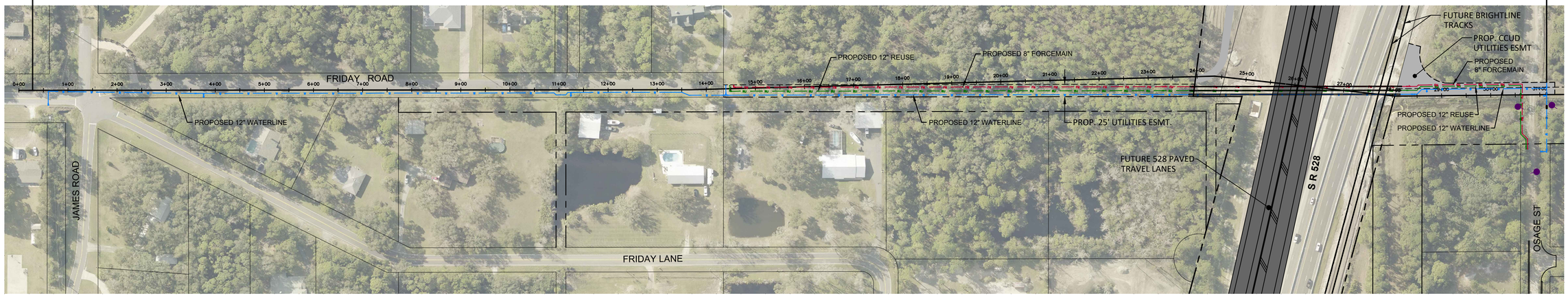
PERMIT CONDITIONS:
ONE TIME SIX MONTH EXTENSION GRANTED. NEW EXPIRATION DATE IS 5/18/2024.

RIGHT-OF-WAY/EASEMENT REVIEW AND APPROVAL DOES NOT CONSTITUTE COUNTY APPROVAL OR REVIEW OF ANY UTILITY RIGHTS TO UTILIZE DRAINAGE RIGHTS-OF-WAY AND/OR OTHER EASEMENTS WITHIN THE PROJECT LIMITS. THE APPLICANT ASSUMES THE RISK IN DETERMINING THE LEGAL RIGHT TO CONSTRUCT THE IMPROVEMENTS.

CONSTRUCTION PLANS PREPARED FOR:

FRIDAY ROAD UTILITIES IMPROVEMENTS

TOWNSHIP 24 SOUTH, RANGE 35 EAST, SECTIONS 10 & 11
BREVARD COUNTY FLORIDA



NORTH

MASTER SITE PLAN
SCALE: 1" = 100'

UTILITY COMPANY CONTACTS

BREVARD COUNTY WATER RESOURCES
2725 JUDGE FRAN JAMIESON WAY
VIERA, FLORIDA 32940
PHONE: (321) 639-2089

BREVARD COUNTY ROAD & BRIDGE
555 CONE ROAD
MERRITT ISLAND, FLORIDA 32952
PHONE: (321) 455-1389

CITY OF COCOA UTILITIES DEPT.
351 SHEARER BLVD
COCOA, FLORIDA 32922
PHONE: (321) 433-8710

AT&T
712 FLORIDA AVE.
COCOA, FLORIDA 32922

FLORIDA CITY GAS
OPERATIONS DEPT.
4180 S. U.S. HIGHWAY No.1
ROCKLEDGE, FLORIDA 32955
PHONE: (321) 638-3424

FLORIDA POWER&LIGHT
270 PIONEER ROAD
MERRITT ISLAND, FLORIDA 32952
PHONE: (321) 455-6125

SPECTRUM
720 MAGNOLIA AVENUE
MELBOURNE, FLORIDA 32935
PHONE: (321) 757-6395

SUNSHINE 811
www.sunshine811.com
(800) 432-4770

GENERAL STATEMENT

This plan is for the proposed construction of approx. 3,270 LF 12" WATERLINE, 1,740 LF 12" REUSE, and for FORCEMAIN: 430 LF 8" PVC; 830 LF 10" HDPE (via direct bore); 60 LF 8" DIP; and 435 LF steel pipe (via jack & bore) to provide improved utility service to existing and future residential homes. Utilities to be located within Friday Road right-of-way, Direct Bore under HWY 528, Jack & Bore under Brightline tracks, and easements to be provided by private property owners.

PROJECT CONTACTS

ENGINEER:
DRMP, INC.
100 PARNELL STREET
MERRITT ISLAND, FLORIDA 32953
PHONE: (321) 453-0010
CONTACT:
JUAN GONZALEZ, P.E., ENGINEER OF RECORD

SURVEYOR:
DRMP, INC.
100 PARNELL STREET
MERRITT ISLAND, FLORIDA 32953
PHONE: (321) 453-0010
CONTACT: JOSEPH B. CABANISS, P.L.S.

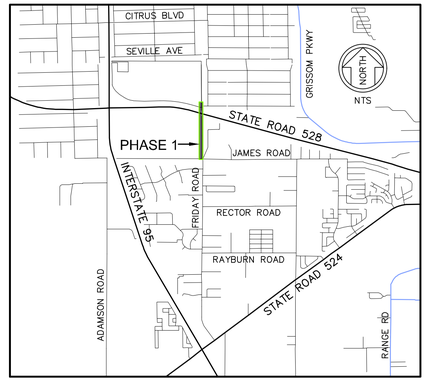
OWNER/DEVELOPER:
CITY OF COCOA UTILITIES DEPT.
351 SHEARER BLVD
COCOA, FLORIDA
PHONE: (321) 433-8700
CONTACT: JOHN "JACK" WALSH PE, DIRECTOR

NOTE:
Contractor is responsible for meeting all OSHA standards related to separation requirements from overhead electric or communication lines. Contractor to coordinate with FPL as required to hold poles (if necessary). All costs associated with FPL pole holding to be included in lump sum clearing and grubbing pay item. Contractor is responsible for coordination with FPL.

SHEET INDEX

SHEET	DESCRIPTION
C1	COVER SHEET
C2	GENERAL NOTES & SUMMARY OF PAY ITEMS
C3-C9	CONSTRUCTION PLAN & PROFILES
C10	SECTIONS & DETAILS
C11-C15	STANDARD WATERLINE DETAILS
C16	MAINTENANCE OF TRAFFIC
C17-C18	STORM WATER POLLUTION PREVENTION PLAN NOTES
C19	BREVARD COUNTY STANDARD NOTES

VICINITY MAP



DSN BY	LB					
DRN BY	LB	5	12/20/23	COCOA UTILITIES DEPT. COMMENTS		GM
CHK BY	JWM	4	02/22/23	COCOA UTILITIES DEPT. COMMENTS		GM
APPR BY	JWM	3	02/01/23	COCOA UTILITIES DEPT. COMMENTS		GM
		2	07/15/22	BREVARD COUNTY COMMENTS		LB
		1	05/25/22	COCOA UTILITIES DEPT. COMMENTS		LB
		NO.	DATE	REVISION DESCRIPTION		BY

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

COVER

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER:	21-0540.002
SCALE:	AS SHOWN
DATE:	November 01, 2021
SHEET:	C 1.0

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GENERAL NOTES

Notice
1. This drawing is valid only when signed and sealed by the Engineer(s) of Record. These plans are considered incomplete without all accompanying construction documents such as Technical Specifications, Geotechnical Report, permits, etc., as applicable.
2. These plans, in whole or in part, shall not be reproduced without written consent from DRMP, Inc.

Survey Information
1. Boundary and topographic information shown hereon was provided per survey by DRMP, INC. dated October 2021.
2. Elevations shown hereon are based on North American Vertical Datum of 1988 ("NAVD88")
   Benchmarks are as follows:
   a. Primary benchmark: Brevard County Survey & Mapping Benchmark "E5A52"; a 3" aluminum disk set in a concrete headwall 23 feet east of the centerline of James Road and 29 feet south of the centerline of Friday Road.
   b. Site benchmarks as shown hereon.
3. Contractor is to verify the vertical and horizontal location of all existing utilities (underground and overhead) prior to ordering of materials/commencement of construction. Any conflicts shall be reported to the Engineer of Record immediately.
4. Contractor is to protect and/or replace all survey monumentation. Any survey corners disturbed or destroyed shall be replaced by a Florida Licensed Surveyor at Contractor's expense prior to substantial completion of project.

Standards
1. All construction and site practices to comply with FDOT Standard Specifications for Road and Bridge Construction (January 2019) and FDOT Standard Plans (2021–22).
2. All construction to comply with the Owner requirements and the latest specifications, criteria, and construction details of CITY OF COCOA.

General
1. The contractor is responsible for obtaining all permits required for construction (land clearing, dewatering, building, etc.) prior to commencement of construction. Contractor shall have permits posted at the job site at all times.
2. The contractor is responsible for all damage to infrastructure located within the right–of–way and on private property during construction. This includes, but is not limited to, the structural integrity of the roadway asphalt, base, and stabilized sub–base, pavement markings, signage, sidewalks, stormwater drainage system, drainage structures, curbs, and ground cover. All repairs shall be completed in accordance with CITY OF COCOA & FDOT specifications and standards. All repairs shall be completed prior to the final inspection of the project. Utility company specifications may also apply for damage to any existing utilities.
3. Contractor is to sequence construction in a manner that will result in the shortest possible disruption to pedestrian and vehicular traffic.
4. Contractor to maintain required horizontal and vertical clearance from existing overhead electric or communication lines in accordance with all FPL and OSHA requirements. All personnel, equipment, and improvements shall meet these requirements. Shall any proposed improvements conflict with these separation requirements, Contractor shall immediately notify Engineer of Record so that remedial design can be performed.
5. Any regulatory signs removed during the daily construction activity must be reinstalled at the end of each work day. Stop signs to be installed per Exhibit 26 (see sheet C10.0)
6. Contractor is to coordinate with appropriate utilities companies regarding utility relocation efforts. It is the contractor's responsibility to provide adequate notification lead–time for relocations to avoid construction delays. Contractor is to notify Engineer of Record of any utility conflicts.
7. Contractor is responsible for ensuring continuous service for all existing utilities.
8. No overnight parking or storage of materials will be allowed within the rights–of–way without written permission from the appropriate jurisdiction and in no case shall such parking or storage be within the Clear Zone. During active construction all parking and storage of materials shall comply with FDOT Index No. 102–600.
9. Any contractor staging on private property to be pre–approved in writing by property owner.
10. Contractor is responsible for any and all violations associated with construction of the project, including fines imposed from any governing agency involved in enforcement.
11. Contractor is responsible for keeping work area neat and clean. Site area must be restored to original condition or better.
12. The contractor is to erect barricading, flagging or temporary fencing sufficient to restrict all vehicles and unauthorized personnel from the site work area. These barriers must be placed a sufficient distance from the site work area to ensure public safety and are to be maintained throughout construction.
13. Contractor is to provide a minimum of 14 business days' notice to property owner(s) of impending removal of mailboxes, landscaping, sprinklers, signs, etc. to allow removal by property owner(s). Private sprinkler systems left in Rights–of–Way shall be cut and capped at the right–of–way line, and removed items given to property owner(s).
14. Signs and mailboxes shall be maintained and/or replaced as necessary for the duration of the project.
15. Driveways to private residences, internal driveway parking spaces, businesses and all public street connections shall remain open except for periods associated with critical points of construction. Contractor to closely coordinate with property owners to minimize or eliminate inconvenience or business interruptions.
16. Vibratory compaction is not permitted (portable plate compactors are acceptable). Contractor is to utilize static rollers only.
17. All muck or other deleterious material encountered within the project site shall be completely removed and replaced with clean fill materials.
18. Contractor shall provide a copy of all testing results to the Engineer of Record and the Owner.
19. Contractor shall provide certified as–built record drawings (certified by a Florida registered land surveyor) to the Engineer of Record and the Owner. As–built drawings shall be in accordance with CITY OF COCOA requirements.
20. Contractor is responsible for scheduling inspections and testing as required per the project permits.

Excavation
1. Contractor acknowledges that, included in the various items of the proposal and in the total bid price, are costs for complying with the Florida Trench Safety Act in compliance with F.S. 553.60.–553.64. These bid prices are to reflect actual costs for complying with the Trench Safety Act (and the requirements of OSHA). Contractor is to provide the owner with a list identifying the trench safety measure description, the units of measure, the unit quantity, unit costs, and total costs for each trench safety measure the contractor proposes to utilize during construction of any phase of this project. This list of trench safety measures and costs is to be supplied to the owner with the bid.
2. Open pits must be filled & restored within one (1) day of excavation. No open trenches during weekends.
3. Contractor is to utilize vertical trenching & associated shoring techniques (such as sheeting, trench boxes, etc.) as needed to ensure the structural integrity, protection and continuous operation of all existing utilities and infrastructure. At a minimum these techniques must also be utilized at all excavations that are:
   a. Within 15 feet of existing power poles and guy wires
   b. Within 8 feet of existing roadways
   c. Within 3 feet of existing sidewalk
4. Contractor is to apply for and acquire a general consumptive use permit (if required) for dewatering activities. All expenses associated with acquiring this permit are incidental to the project and are the responsibility of the Contractor without compensation. All dewatering efforts are the responsibility of the Contractor.

Erosion and Sedimentation Control
1. Stormwater runoff flow patterns must be maintained by the Contractor during the course of construction.
2. The contractor shall install erosion/sedimentation controls and tree/natural area protective fencing prior to any site preparation work (clearing, grubbing, or excavation).
3. Controls and fences shall be in conformance with FDOT, FDEP, and/or St. Johns River Water Management District standards. If a FDEP–NPDES Notice of Intent for Construction Discharge Permit is required Contractor is responsible for preparation of the Stormwater Pollution Prevention Plan (SWPPP), and obtaining the permit (if not provided by the Owner. Contractor is also responsible for all maintenance and reporting activities in conformance with the conditions of the permit.
4. The placement of erosion/sedimentation controls and tree/natural area protective fencing shall be in accordance with the approved erosion and sedimentation control plan (or SWPPP).
5. The contractor is required to inspect the controls and fences at weekly intervals and after significant rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
6. The controls must remain in place until disturbed areas are revegetated and the areas have been permanently stabilized.
7. Prior to final acceptance by the Owner, all controls, fencing, and accumulated sediment must be removed and the area restored to the proper grade.
8. All disturbed areas to be sodded unless otherwise shown. All disturbed areas within right–of–way are to be sodded with Bahia Sod unless existing sod is St. Augustine which shall be replaced with St. Augustine Sod. All sod replacement is to be with like sod type. Construction is limited to within the Rights–of–Way and/or easements obtained. Disturbed areas outside the construction limits will be sodded at the Contractor's expense. Sod shall be pinned for slopes steeper than 4H: 1V.

Roadway and Sidewalk
1. All areas requiring striping shall be identified using the Striping and Visual Contact Criteria of the Manual on Uniform Traffic Control Devices (Federal Highway Administration – FHWA). Contractor to remove existing conflicting striping by high pressure water or mechanical means meeting FDOT requirements. Painted temporary striping is to be applied. Final striping shall not be applied until asphalt has properly cured. All final pavement markings are to be thermoplastic.
2. All concrete shall meet FDOT design mix and specifications. Curing method shall be in accordance with the FDOT Specifications for Road and Bridge Construction.
3. Only "New" (FOS) fluorescent orange sheeting shall be used on M.O.T. signage (FDOT Section 994).
4. All open asphalt cuts shall have excavatable flowable fill and temporary asphalt installed within two (2) days of excavation. Permanent asphalt including milling, if needed, shall be completed within thirty (30) days of excavation.
5. Sidewalk ramping shall not exceed a 12:1 slope and must meet F.D.O.T., ADA, and State of Florida requirements.
6. Concrete sidewalks (or pedways) and concrete driveway aprons shall be constructed over soils compacted to 98% density, of AASHTO T–180 6" thick. Should existing soils be found unsuitable for compaction, additional compatible materials shall be brought to the site for use as subgrade. Alternate methods of compaction may be required to avoid damage to surrounding properties. Any additional fill required to achieve grade or compaction is included at Contractor's expense and separate payment will not be made.
7. Expansion joint material shall be installed at all cold joints and at a maximum of every 50 feet. No slip form paving of sidewalk is permitted.
8. Construct sidewalk joints pursuant to FDOT Index No. 522–001. Sidewalk patching will not be acceptable.
9. Contractor shall trim any existing vegetation to provide a minimum of 2 feet horizontal clearance and 10 feet vertical clearance from proposed sidewalk.
10. All posts and hardware for any signs installed on the site or in the Brevard County right–of–way shall adhere to the requirements in Brevard County Land Development Exhibit 26.

MOT
1. A Project Specific Maintenance of Traffic (MOT) plan or Roadway Closure MOT/Detour plan must be submitted to BREVARD COUNTY for Friday Road and FDOT for S.R. 528 for approval a minimum of two (2) weeks prior to start of construction for all roadways. The MOT plan shall be in accordance with MUTCD and FDOT Standard Index 102 Series, Latest Editions.
2. Pre–Construction meetings must be scheduled with CITY OF COCOA, FDOT, and BREVARD COUNTY a minimum of two (2) weeks prior to start of construction for all roadways.
3. Any lane closures shall be coordinated with CITY OF COCOA, FDOT, and BREVARD COUNTY in writing and approved two (2) weeks prior to any lane closures in the Rights–of–way.

FDOT
1. Contact FDOT to schedule Pre–Work Meeting two weeks prior to beginning work (321) 634–6100.
2. Coordinate Open Cut and Mill & Resurface repair with FDOT Permits Office (321) 634–6100.
3. No steel plates shall be allowed on FDOT roadways.

City of Cocoa Utilities
1. All M.J. joints to be restrained using megalugs.
2. All D.I.P. to be wrapped in polyethylene.
3. Customers to be given 48 hours written notice prior to utility relocation.
4. City of Cocoa to perform materials inspection prior to field assembly. The Contractor is responsible for scheduling this inspection with a City of Cocoa Engineering Inspector.
5. City of Cocoa inspectors must be present to see all pipe construction. Visual inspection required in addition to pressure testing.
6. Regardless of private or public dedication, there shall be no utility connections or meter boxes within proposed or existing sidewalks or driveway areas.
7. All waterline pipe to be swabbed with chlorine and a bacteriological test is required.
8. Jumper assemblies are to be located as close to the right–of–way as possible.

Summary of Pay Items

Item #	Qty	Un	Description
101-1	1	LS	Mobilization
101-2	1	LS	Pre & post construction video
101-3	1	LS	Record drawings
102-1	1	LS	Maintenance of traffic
104-30	1	LS	Erosion control
110-1-1	1	LS	Clearing and grubbing
121-70	16	CY	Flowable Fill
327-70-6	320	SY	Mill exist. asphalt, 1.5" avg. depth
334-1-13	30	TN	Superpave asph. traf C, SP-12.5
570-1-3	2,825	SY	Sod, Bahia
570-1-4	100	SY	Sod, St. Augustine (contingency)
706-1-3	12	EA	Raised pvmt. marker, type B
711-11-221	230	LF	Thermoplastic, std, yellow, solid, 6"
Potable Water			
1050-31-212	1,670	LF	12" PVC water main
1050-51-208	20	LF	8" DIP
1050-51-212	60	LF	12" DIP
1050-41-212	435	LF	Jack & bore 12" steel pipe
1050-41-214	1,105	LF	Direct bore 14" HDPE
1055-1	3.08	TN	Water pipe fittings
1080-11-303	1	EA	6"×6" Wet tap
1080-11-304	5	EA	6" Gate valve
1080-11-402	1	EA	8" Gate valve
1080-11-403	1	EA	12"×10" Wet tap
1080-11-404	2	EA	8" Gate valve in manhole
1080-11-405	8	EA	12" Gate valve
1080-25-104	1	EA	2" Blow-off valve
1644-116-08	5	EA	Fire hydrant
Force Main			
2050-31-208	430	LF	8" PVC force main
2050-51-208	60	LF	8" DIP
2050-41-208	435	LF	Jack & bore 8" steel pipe
2050-41-210	830	LF	Direct bore 10" HDPE
2055-1	0.80	TN	Force main fittings
2080-11-304	4	EA	8" Gate valve
2080-26-106	3	EA	Air/vac assembly
Reclaimed Water			
3050-31-212	415	LF	12" PVC reclaimed water main
3050-51-212	60	LF	12" DIP
3050-41-212	435	LF	Jack & bore 12" steel pipe
3050-41-214	830	LF	Direct bore 14" HDPE
3055-1	1.81	TN	Reclaimed water main fittings
3080-11-304	5	EA	12" Gate valve
3080-11-404	2	EA	12" Gate valve in manhole

NOTICE TO CONTRACTOR

FDEP CONSTRUCTION SPECIFICATION NOTES FOR WATER & SEWER

(1) Horizontal Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, Reclaimed Water Pipelines, and On-Site Sewage Treatment and Disposal Systems.
(a) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed storm sewer, storm water force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
(b) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer.
(c) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer.
(d) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

(2) Vertical Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, and Reclaimed Water Pipelines.
(a) New or relocated, underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer shall be laid so the outside of the water main is at least six inches, and preferably 12 inches, above or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.
(b) New or relocated, underground water mains crossing any existing or proposed pressure-type sanitary sewer, wastewater or storm water force main, or pipeline conveying reclaimed water shall be laid so the outside of the water main is at least 12 inches above or below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.
(c) At the utility crossings described in paragraphs (a) and (b) above, one full length of water main pipe shall be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline. Alternatively, at such crossings, the pipes shall be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, storm sewers, storm water force mains, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

(3) Separation Between Water Mains and Sanitary or Storm Sewer Manholes.
(a) No water main shall pass through, or come into contact with, any part of a sanitary sewer manhole.
(b) Effective August 28, 2003, water mains shall not be constructed or altered to pass through, or come into contact with, any part of a storm sewer manhole or inlet structure

(4) Separation Between Fire Hydrant Drains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, Reclaimed Water Pipelines, and On-Site Sewage Treatment and Disposal Systems. New or relocated fire hydrants with underground drains shall be located so that the drains are at least three feet from any existing or proposed storm sewer, storm water force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.; at least three feet, and preferably ten feet, from any existing or proposed vacuum-type sanitary sewer; at least six feet, and preferably ten feet, from any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.; and at least ten feet from any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

DSN BY	LB					
DRN BY	LB	5	12/20/23	COCOA UTILITIES DEPT. COMMENTS		GM
CHK BY	JWM	4	02/22/23	COCOA UTILITIES DEPT. COMMENTS		GM
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CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

GENERAL NOTES / SUMMARY OF PAY ITEMS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

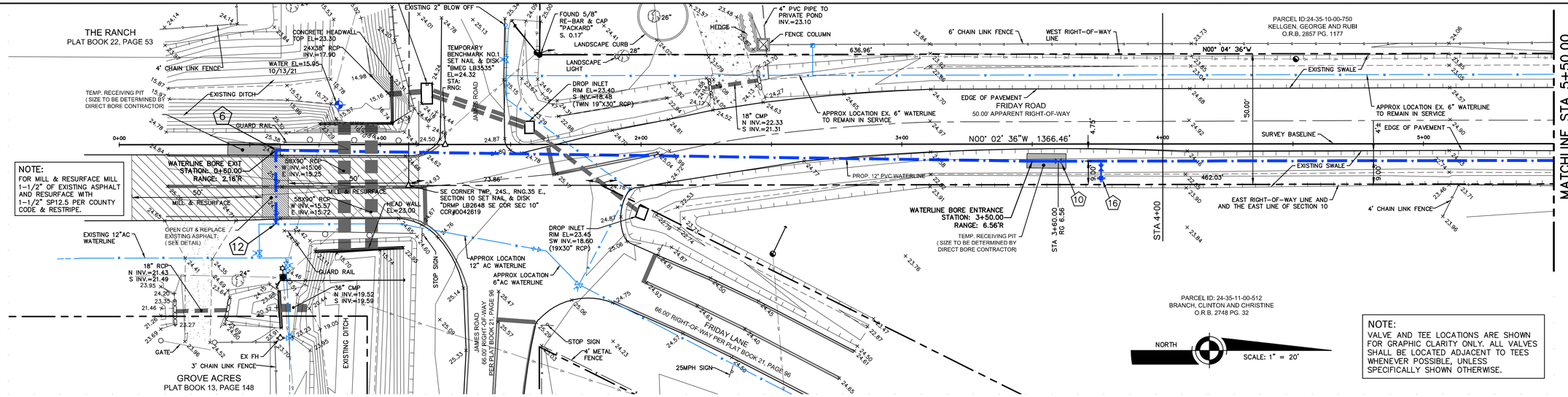
DRMP, Inc.

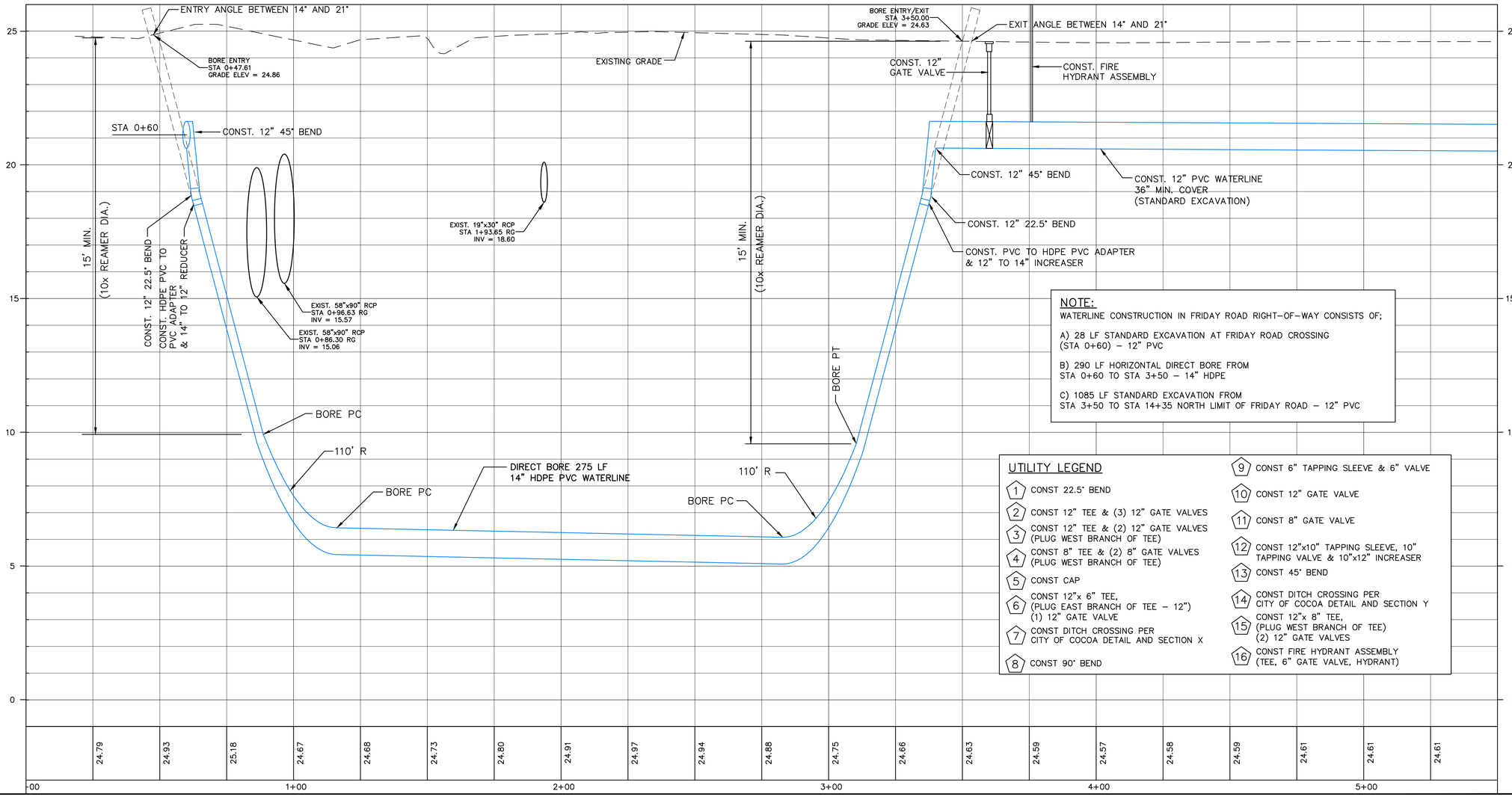
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Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: November 01, 2021
SHEET: C 2.0

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NOTE:
WATERLINE CONSTRUCTION IN FRIDAY ROAD RIGHT-OF-WAY CONSISTS OF;

A) 28 LF STANDARD EXCAVATION AT FRIDAY ROAD CROSSING (STA 0+60) – 12" PVC

B) 290 LF HORIZONTAL DIRECT BORE FROM STA 0+60 TO STA 3+50 – 14" HDPE

C) 1085 LF STANDARD EXCAVATION FROM STA 3+50 TO STA 14+35 NORTH LIMIT OF FRIDAY ROAD – 12" PVC

UTILITY LEGEND

1. CONST 22.5° BEND
2. CONST 12" TEE & (3) 12" GATE VALVES
3. CONST 12" TEE & (2) 12" GATE VALVES (PLUG WEST BRANCH OF TEE)
4. CONST 8" TEE & (2) 8" GATE VALVES (PLUG WEST BRANCH OF TEE)
5. CONST CAP
6. CONST 12"x 6" TEE, (PLUG EAST BRANCH OF TEE – 12") (1) 12" GATE VALVE
7. CONST DITCH CROSSING PER CITY OF COCOA DETAIL AND SECTION X
8. CONST 90° BEND
9. CONST 6" TAPPING SLEEVE & 6" VALVE
10. CONST 12" GATE VALVE
11. CONST 8" GATE VALVE
12. CONST 12"x10" TAPPING SLEEVE, 10" TAPPING VALVE & 10"x12" INCREASER
13. CONST 45° BEND
14. CONST DITCH CROSSING PER CITY OF COCOA DETAIL AND SECTION Y
15. CONST 12"x 8" TEE, (PLUG WEST BRANCH OF TEE) (2) 12" GATE VALVES
16. CONST FIRE HYDRANT ASSEMBLY (TEE, 6" GATE VALVE, HYDRANT)

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY: LB
DRN BY: LB
CHK BY: JWM
APPR BY: JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

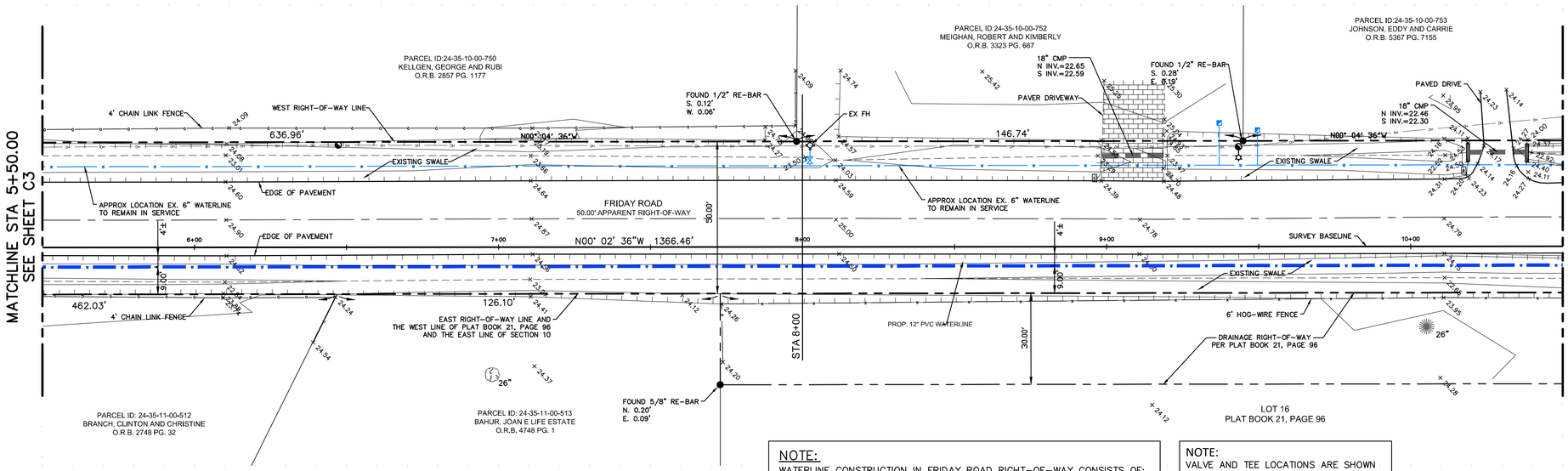
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JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER:	21-0540.002
SCALE:	1"=20' H 1"=10' V
DATE:	November 01, 2021
SHEET:	C 3.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 03-10 CONST PLAN PROFILE.dwg Plotted: Dec 20, 2023 - 3:13pm by gmatchett



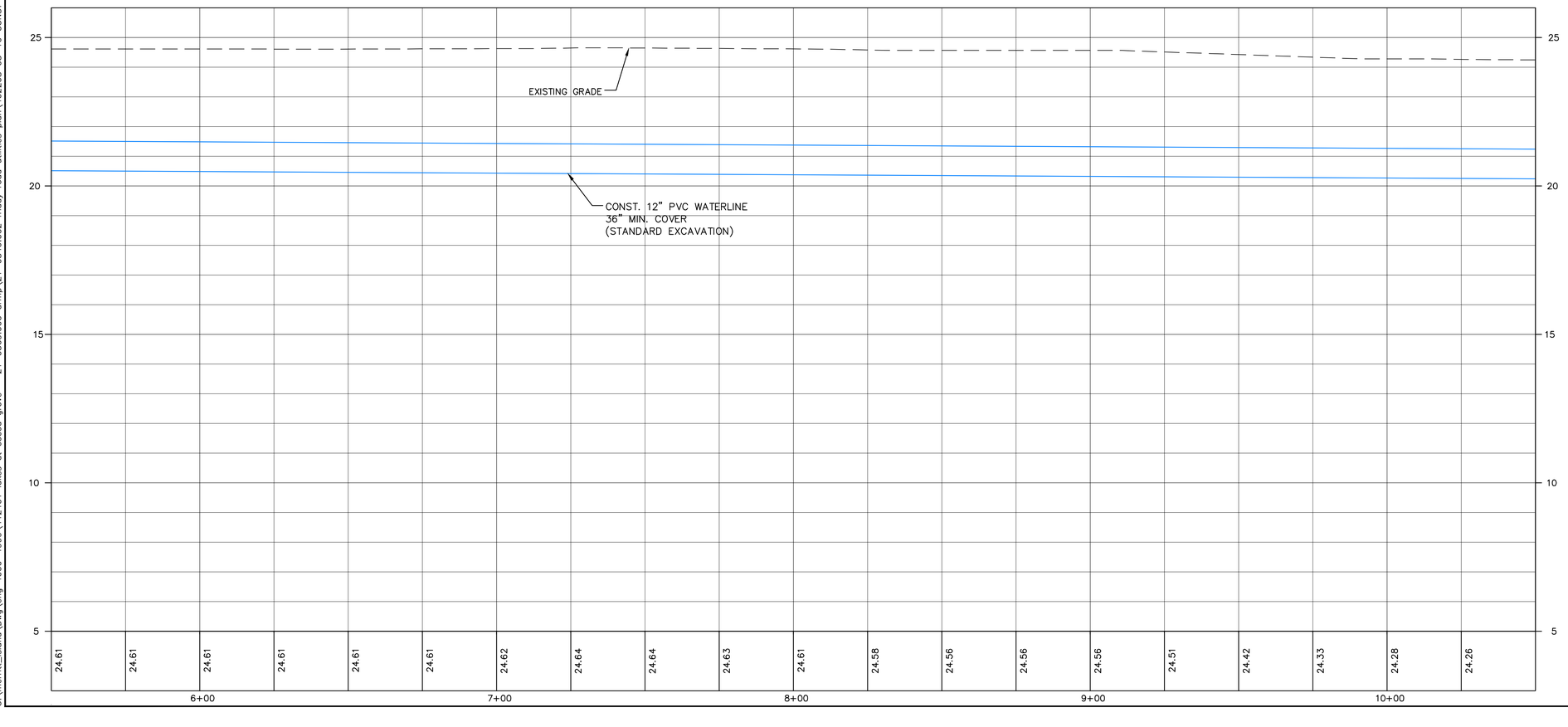
NOTE:
WATERLINE CONSTRUCTION IN FRIDAY ROAD RIGHT-OF-WAY CONSISTS OF;

A) 28 LF STANDARD EXCAVATION AT FRIDAY ROAD CROSSING
(STA 0+60) – 12" PVC

B) 290 LF HORIZONTAL DIRECT BORE FROM
STA 0+60 TO STA 3+50 – 14" HDPE

C) 1085 LF STANDARD EXCAVATION FROM
STA 3+50 TO STA 14+35 NORTH LIMIT OF FRIDAY ROAD – 12" PVC

NOTE:
VALVE AND TEE LOCATIONS ARE SHOWN FOR GRAPHIC CLARITY ONLY. ALL VALVES SHALL BE LOCATED ADJACENT TO TEES WHENEVER POSSIBLE, UNLESS SPECIFICALLY SHOWN OTHERWISE.



NORTH
SCALE: 1" = 20'

UTILITY LEGEND

1. CONST 22.5° BEND
2. CONST 12" TEE & (3) 12" GATE VALVES
3. CONST 12" TEE & (2) 12" GATE VALVES (PLUG WEST BRANCH OF TEE)
4. CONST 8" TEE & (2) 8" GATE VALVES (PLUG WEST BRANCH OF TEE)
5. CONST CAP
6. CONST 12"x 6" TEE, (PLUG EAST BRANCH OF TEE – 12") (1) 12" GATE VALVE
7. CONST DITCH CROSSING PER CITY OF COCOA DETAIL AND SECTION X
8. CONST 90° BEND
9. CONST 6" TAPPING SLEEVE & 6" VALVE
10. CONST 12" GATE VALVE
11. CONST 8" GATE VALVE
12. CONST 12"x10" TAPPING SLEEVE, 10" TAPPING VALVE & 10"x12" INCREASER
13. CONST 45° BEND
14. CONST DITCH CROSSING PER CITY OF COCOA DETAIL AND SECTION Y
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DRN BY	LB	CHK BY	JWM	APPR BY	JWM
DSN BY	LB				

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CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES

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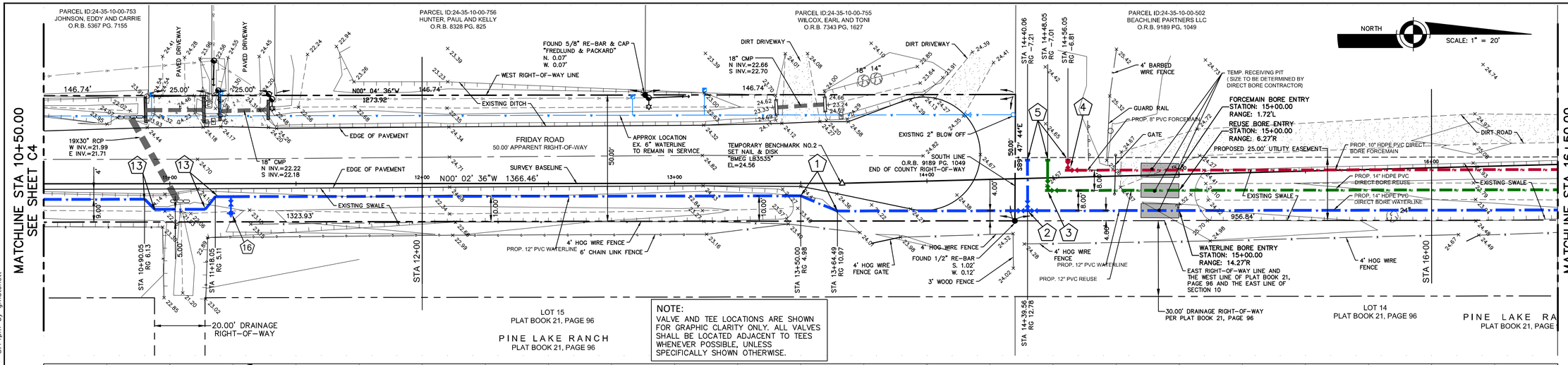
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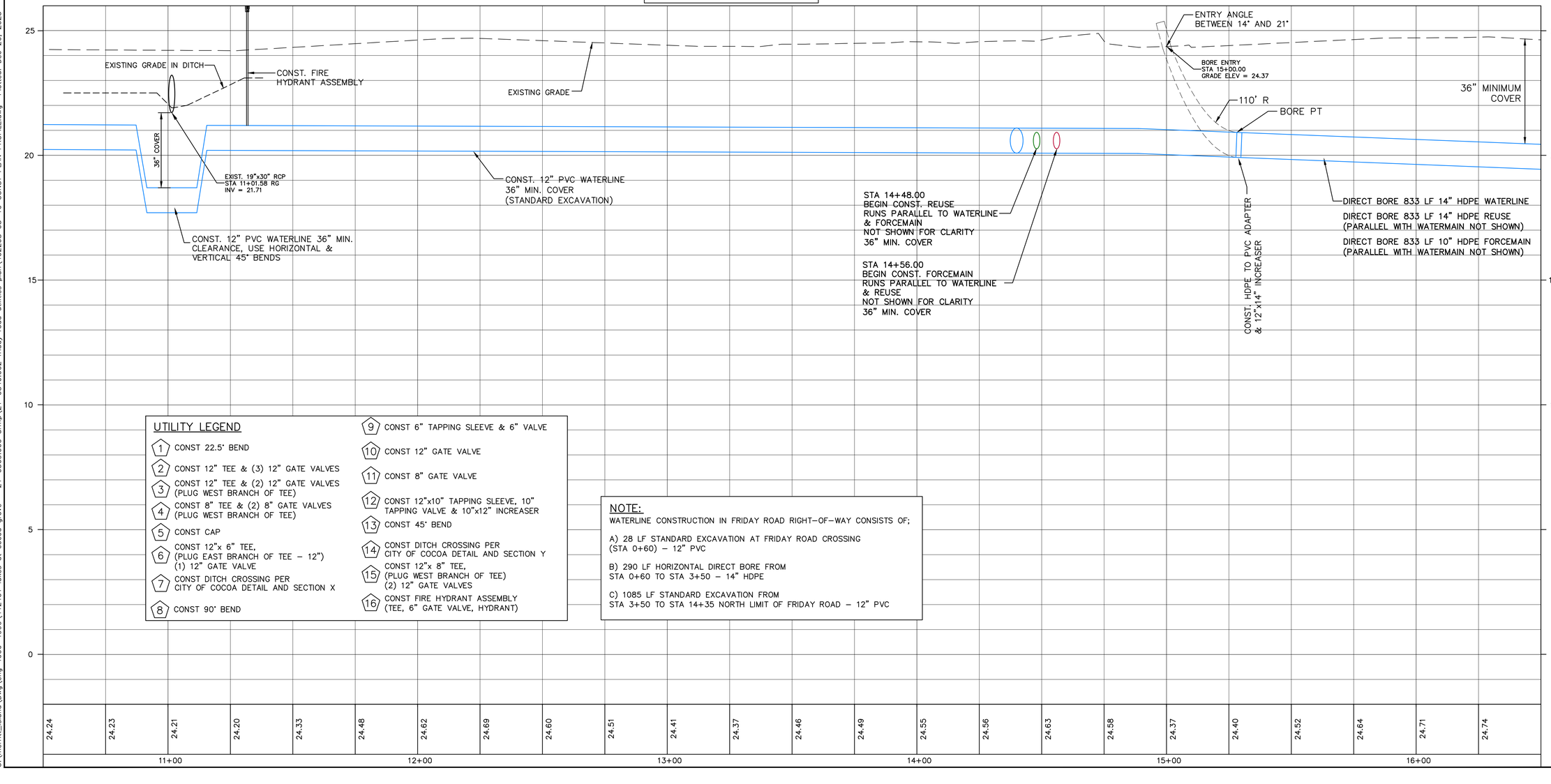
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State of Florida # 84538

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APPR BY: JWM

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CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES

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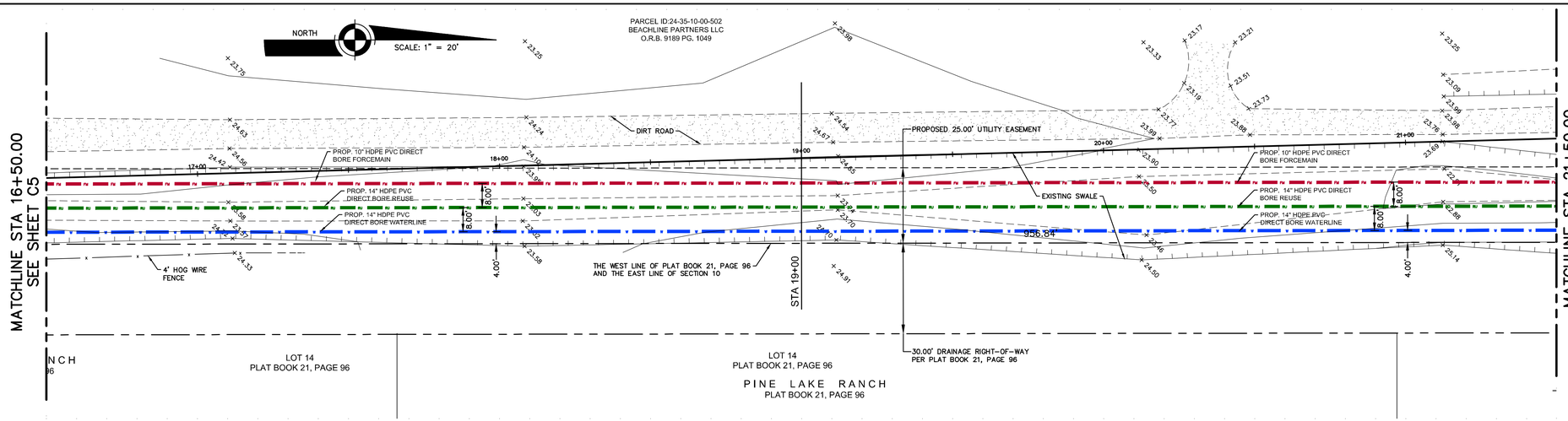
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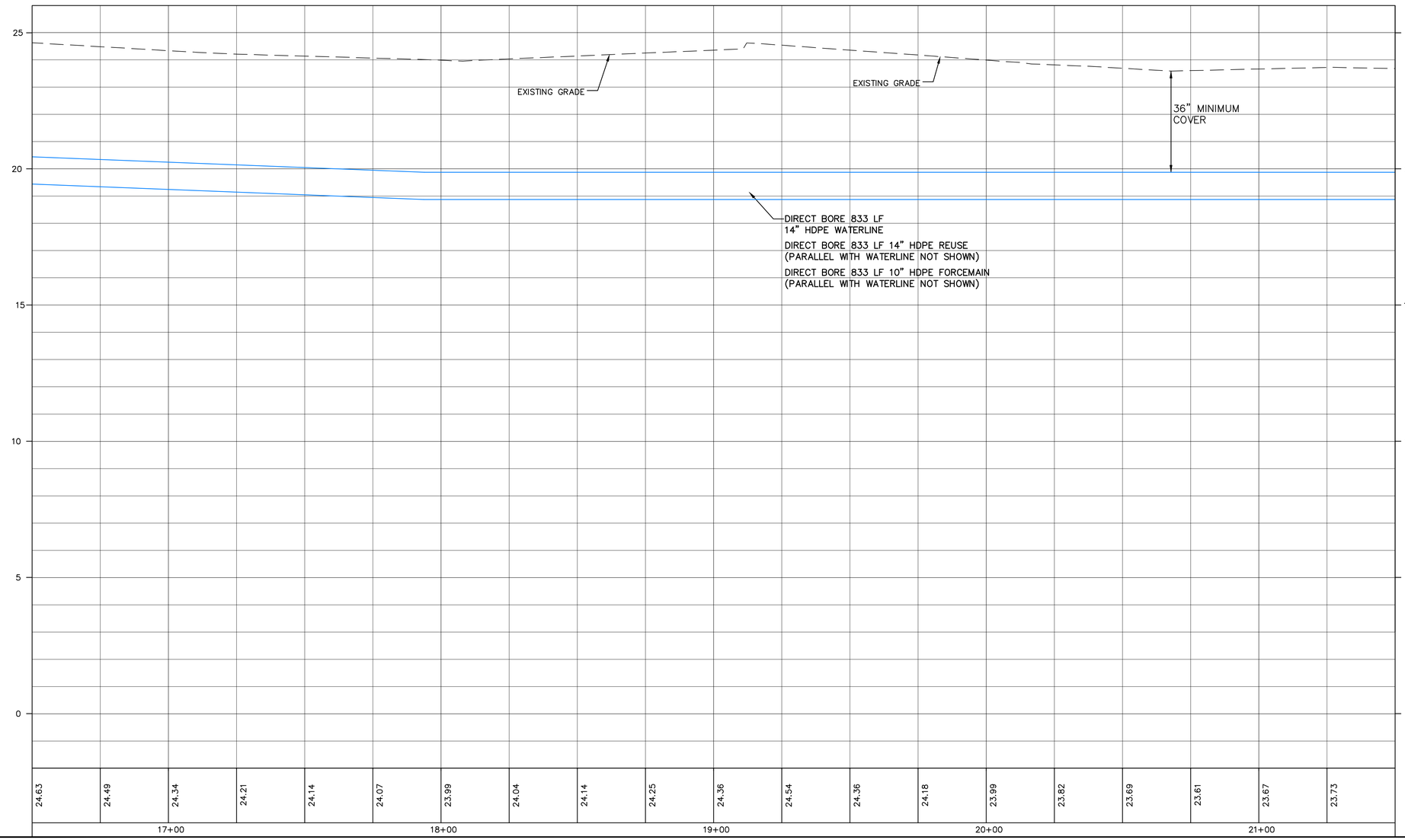
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CITY OF COCOA, FLORIDA

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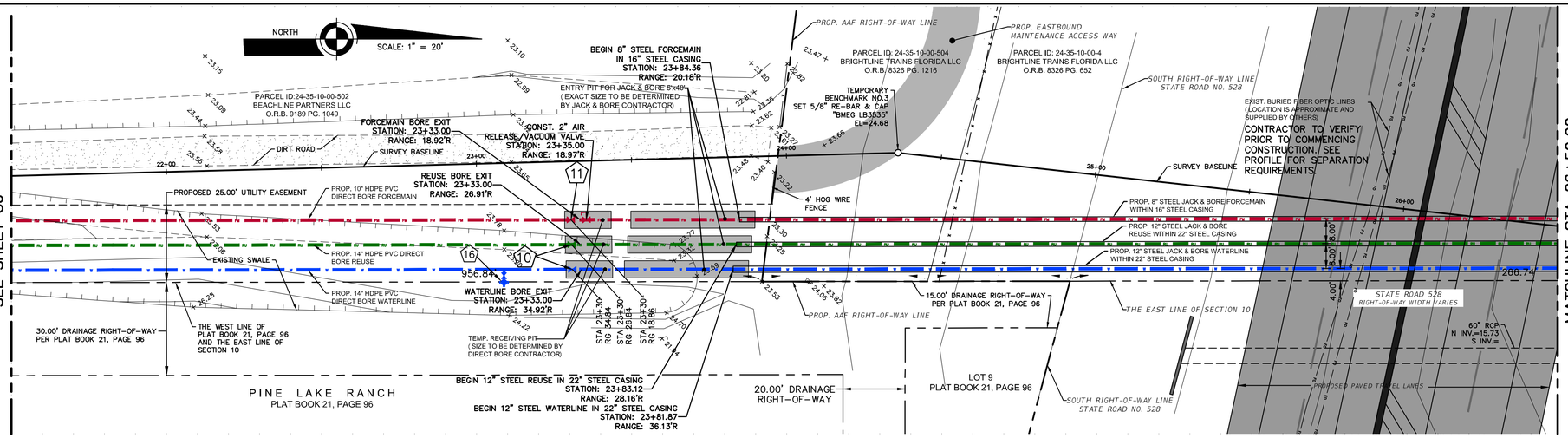
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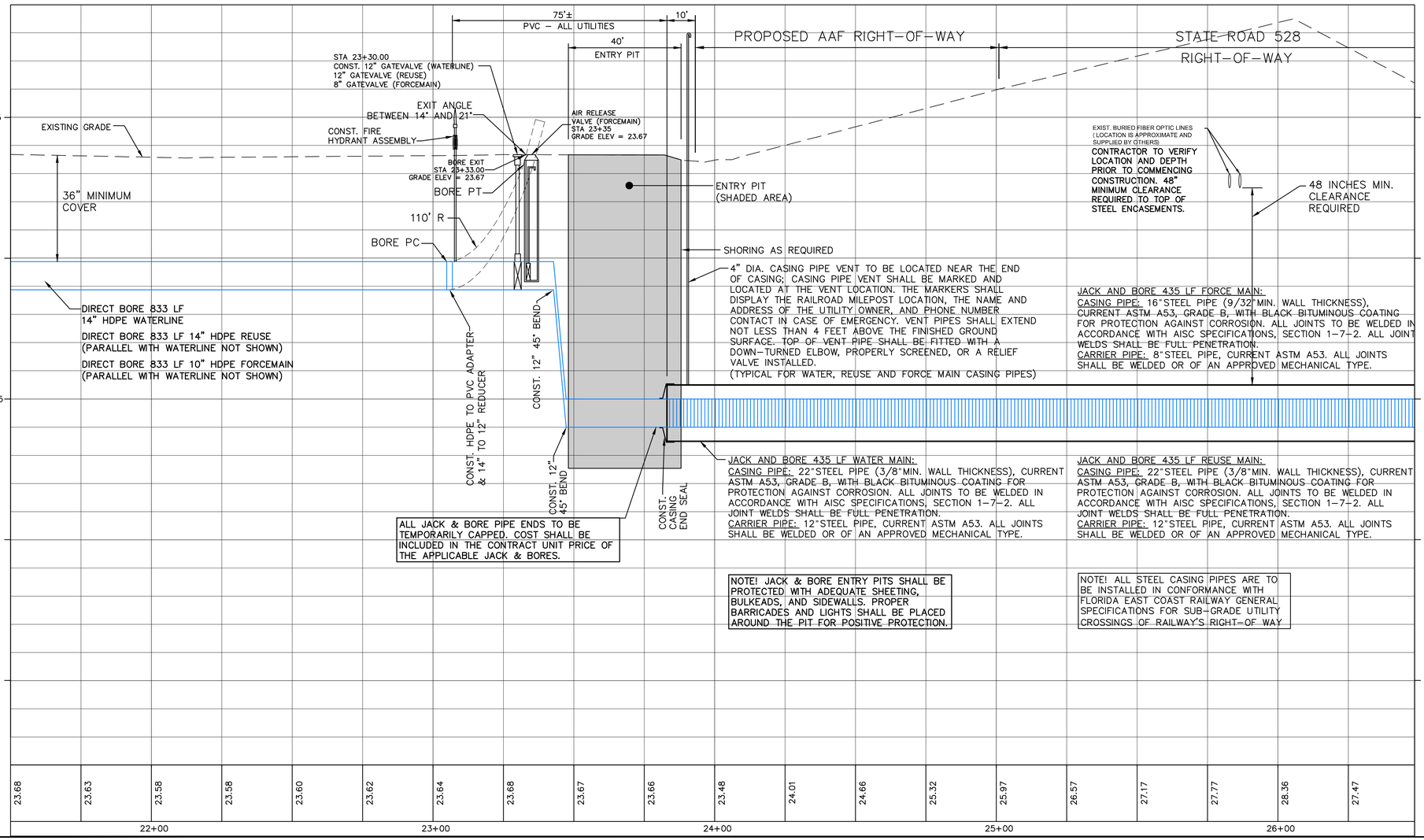
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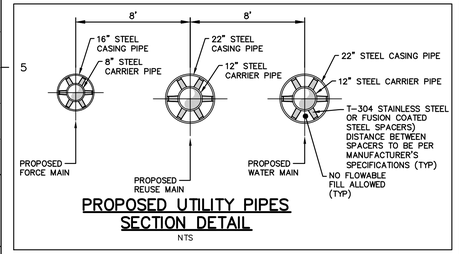
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NOTE:
ALL PROPOSED JACK AND BORE CONSTRUCTION SPECIFICATIONS TO ADHERE TO FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION -JANUARY 2022; REFERENCE FDOT SECTION 556.



PROPOSED UTILITY PIPES
SECTION DETAIL
NTS

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DSN BY LB
DRN BY LB
CHK BY JWM
APPR BY JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES

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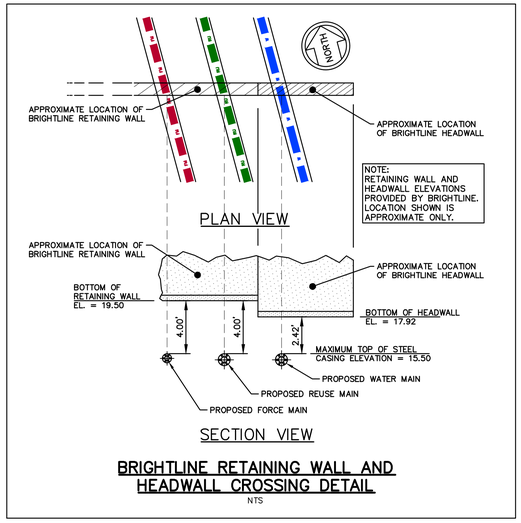
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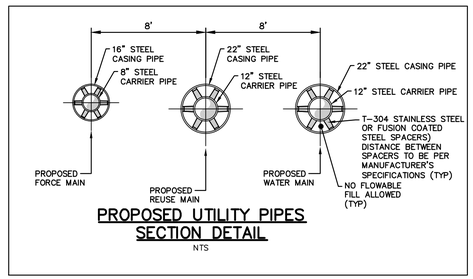
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BRIGHTLINE RETAINING WALL AND HEADWALL CROSSING DETAIL

NTS



PROPOSED UTILITY PIPES SECTION DETAIL

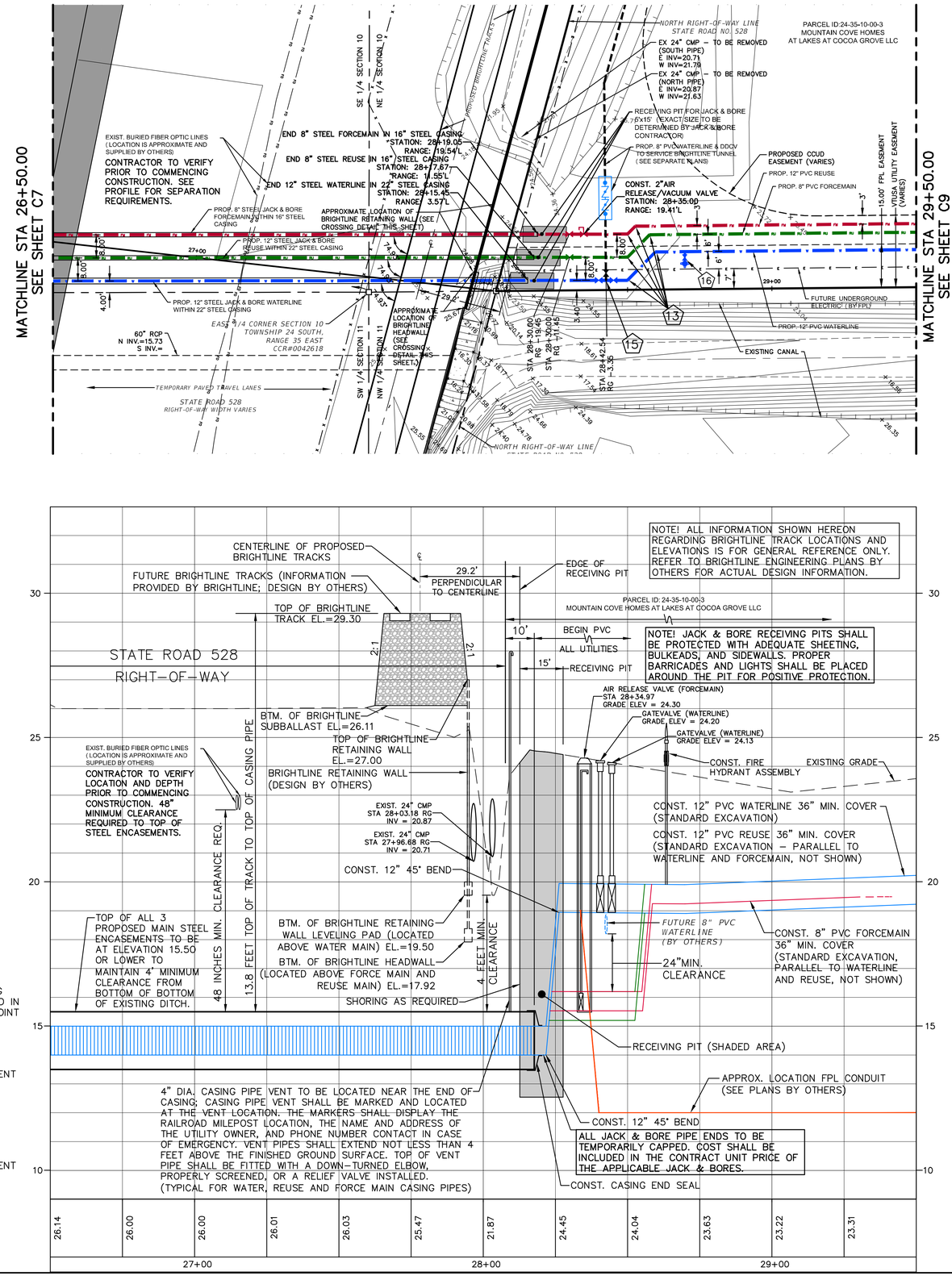
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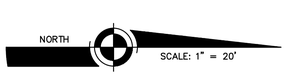
NOTE! ALL STEEL CASING PIPES ARE TO BE INSTALLED IN CONFORMANCE WITH FLORIDA EAST COAST RAILWAY GENERAL SPECIFICATIONS FOR SUB-GRADE UTILITY CROSSINGS OF RAILWAY'S RIGHT-OF WAY

JACK AND BORE 435 LF FORCE MAIN:
CASING PIPE: 16"STEEL PIPE (9/32"MIN. WALL THICKNESS), CURRENT ASTM A53, GRADE B, WITH BLACK BITUMINOUS COATING FOR PROTECTION AGAINST CORROSION. ALL JOINTS TO BE WELDED IN ACCORDANCE WITH AISC SPECIFICATIONS, SECTION 1-7-2. ALL JOINT WELDS SHALL BE FULL PENETRATION.
CARRIER PIPE: 8"STEEL PIPE, CURRENT ASTM A53. ALL JOINTS SHALL BE WELDED OR OF AN APPROVED MECHANICAL TYPE.

JACK AND BORE 435 LF WATER MAIN:
CASING PIPE: 22"STEEL PIPE (3/8"MIN. WALL THICKNESS), CURRENT ASTM A53, GRADE B, WITH BLACK BITUMINOUS COATING FOR PROTECTION AGAINST CORROSION. ALL JOINTS TO BE WELDED IN ACCORDANCE WITH AISC SPECIFICATIONS, SECTION 1-7-2. ALL JOINT WELDS SHALL BE FULL PENETRATION.
CARRIER PIPE: 12"STEEL PIPE, CURRENT ASTM A53. ALL JOINTS SHALL BE WELDED OR OF AN APPROVED MECHANICAL TYPE.

JACK AND BORE 435 LF REUSE MAIN:
CASING PIPE: 22"STEEL PIPE (3/8"MIN. WALL THICKNESS), CURRENT ASTM A53, GRADE B, WITH BLACK BITUMINOUS COATING FOR PROTECTION AGAINST CORROSION. ALL JOINTS TO BE WELDED IN ACCORDANCE WITH AISC SPECIFICATIONS, SECTION 1-7-2. ALL JOINT WELDS SHALL BE FULL PENETRATION.
CARRIER PIPE: 12"STEEL PIPE, CURRENT ASTM A53. ALL JOINTS SHALL BE WELDED OR OF AN APPROVED MECHANICAL TYPE.





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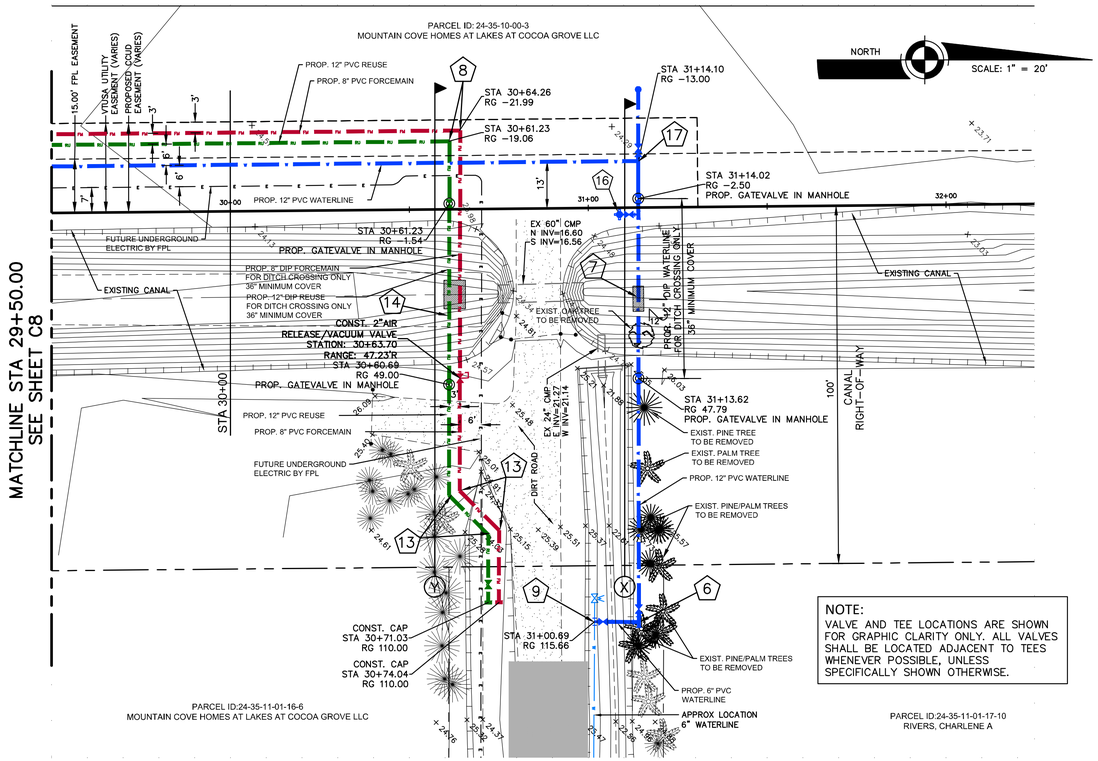
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100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER:	21-0540.002
SCALE:	1"=20' H 1"=10' V
DATE:	November 01, 2021
SHEET:	C 8.0

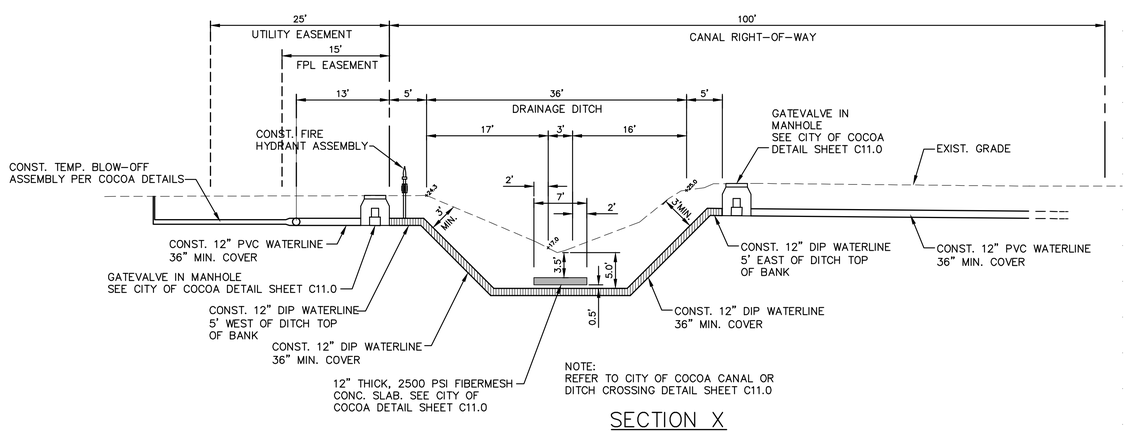
O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 03-10 CONST PLAN PROFILE.dwg Plotted: Dec 20, 2023 - 3:16pm by gmotchett



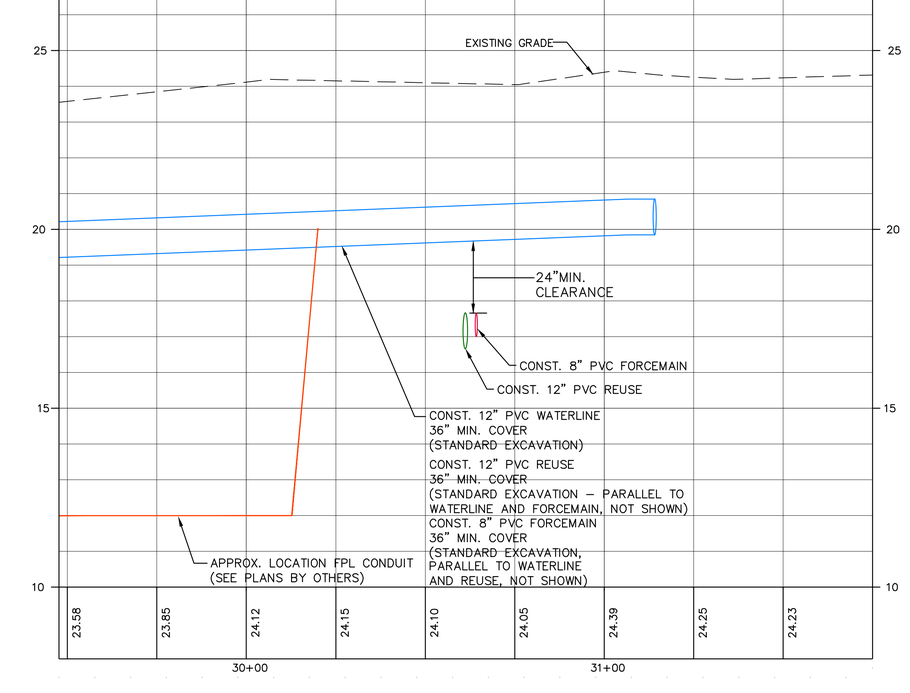
NOTE:
VALVE AND TEE LOCATIONS ARE SHOWN FOR GRAPHIC CLARITY ONLY. ALL VALVES SHALL BE LOCATED ADJACENT TO TEES WHENEVER POSSIBLE, UNLESS SPECIFICALLY SHOWN OTHERWISE.

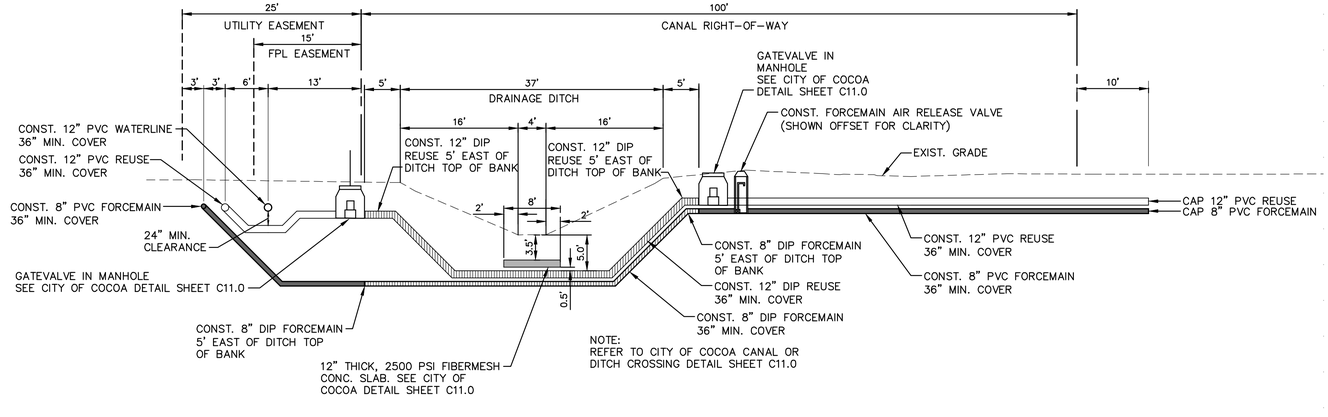
UTILITY LEGEND

1. CONST 22.5° BEND
2. CONST 12" TEE & (3) 12" GATE VALVES
3. CONST 12" TEE & (2) 12" GATE VALVES (PLUG WEST BRANCH OF TEE)
4. CONST 8" TEE & (2) 8" GATE VALVES (PLUG WEST BRANCH OF TEE)
5. CONST CAP
6. CONST 12"x 6" TEE, (PLUG EAST BRANCH OF TEE – 12") (1) 12" GATE VALVE
7. CONST DITCH CROSSING PER CITY OF COCOA DETAIL AND SECTION X
8. CONST 90° BEND
9. CONST 6" TAPPING SLEEVE & 6" VALVE
10. CONST 12" GATE VALVE
11. CONST 8" GATE VALVE
12. CONST 12"x10" TAPPING SLEEVE, 10" TAPPING VALVE & 10"x12" INCREASER
13. CONST 45° BEND
14. CONST DITCH CROSSING PER CITY OF COCOA DETAIL AND SECTION Y
15. CONST 12"x 8" TEE, (PLUG WEST BRANCH OF TEE) (2) 12" GATE VALVES
16. CONST FIRE HYDRANT ASSEMBLY (TEE, 6" GATE VALVE, HYDRANT)
17. CONST 12"x12" TEE, 12"x8" REDUCER (WEST BRANCH), 20 LF 8" DIP, AND 2" BLOW-OFF VALVE



SECTION X
SCALE: 1" = 10'





SECTION Y
SCALE: 1" = 10'

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY: LB
DRN BY: LB
CHK BY: JWM
APPR BY: JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 03-10 CONST PLAN PROFILE.dwg Plotted: Dec 20, 2023 - 3:17pm by gmotchett

STREET NAME SIGN NOTES:

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEX RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALM6BP3/4, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

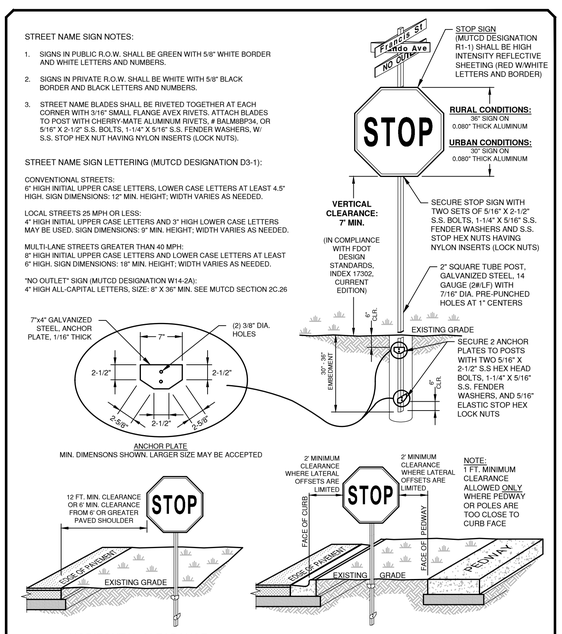
STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):

CONVENTIONAL STREETS:
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

LOCAL STREETS 25 MPH OR LESS:
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

MULTI-LANE STREETS GREATER THAN 40 MPH:
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):
4" HIGH ALL-CAPITAL LETTERS, SIZE: 6" X 36" MIN. SEE MUTCD SECTION 2C.26

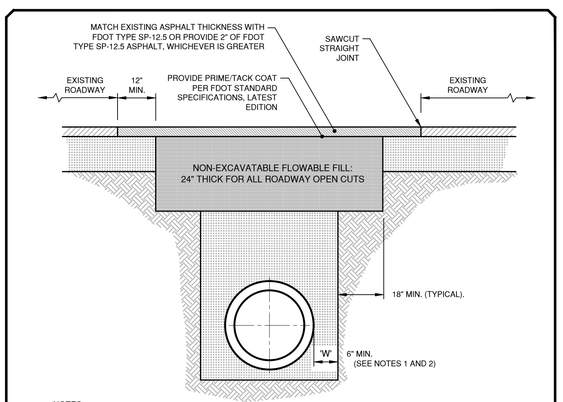


HORIZONTAL CLEARANCE
(WITHOUT CURB AND GUTTER)

HORIZONTAL CLEARANCE
(WITH CURB AND GUTTER)

STOP SIGN AND STREET MARKER DETAILS

	BREVARD COUNTY LAND DEVELOPMENT 2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940	**EXHIBIT - 26**	DATE: OCT-2014

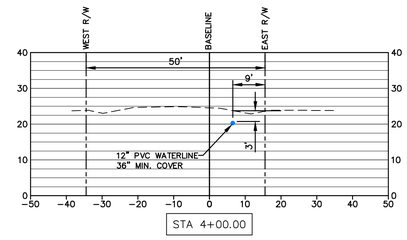


NOTES:

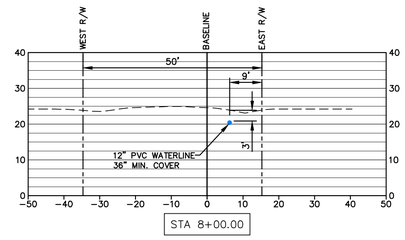
1. "W" SHALL BE A MINIMUM OF 6" WIDE AND OF SUFFICIENT WIDTH TO ACCOMMODATE NECESSARY COMPACTION EFFORTS. IN THE EVENT THE REQUIRED MINIMUM DENSITY IS NOT ACHIEVED, LOOSE MATERIAL SHALL BE REMOVED, REPLACED AND COMPACTED TO THE REQUIRED DENSITY, OR REPLACED WITH FULL DEPTH FLOWABLE FILL. DENSITY TESTS BELOW THE SPRING LINE OF THE PIPE ARE REQUIRED IN ADDITION TO OTHER TESTING REQUIREMENTS. (IN THE EVENT FULL DEPTH FLOWABLE FILL IS USED AS BACKFILL, DENSITY REQUIREMENTS ARE WAIVED.)
2. CONTRACTOR SHALL EXCAVATE BOTTOM OF TRENCH TO ALLOW FOR BELL SECTION OF PIPE.
3. MINIMUM ALLOWABLE BACKFILL DENSITY SHALL BE 98% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE PER AASHTO T-180. REFER TO EXHIBIT-27 FOR STORMWATER PIPE BACKFILL REQUIREMENTS.
4. FLOWABLE FILL SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 121, LATEST EDITION.
5. ALL OPEN CUTS SHALL HAVE FLOWABLE FILL AND TEMPORARY ASPHALT INSTALLED WITHIN 2 DAYS OF EXCAVATION. PERMANENT ASPHALT INCLUDING MILLING, IF NEEDED, SHALL BE COMPLETED WITHIN 30 DAYS OF EXCAVATION.
6. THESE ARE MINIMUM REQUIREMENTS. ADDITIONAL RESTRICTIONS MAY BE NECESSARY ON A CASE BY CASE BASIS.

ASPHALT ROADWAY OPEN CUT - PAVEMENT REMOVAL AND REPLACEMENT

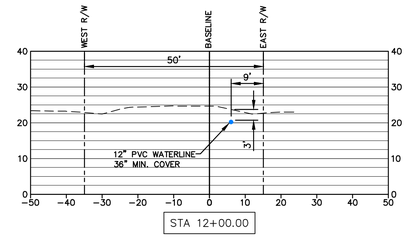
	BREVARD COUNTY LAND DEVELOPMENT 2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940	**EXHIBIT - 25A**	DATE: JUNE-2017



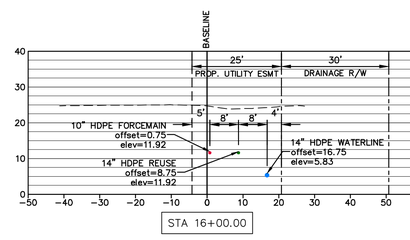
STA 4+00.00



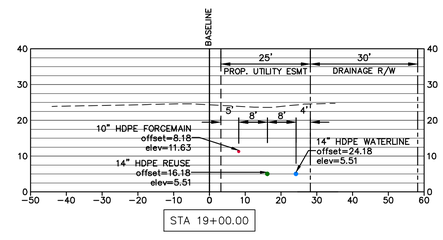
STA 8+00.00



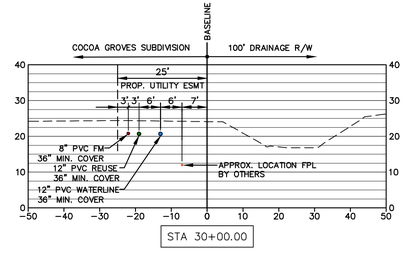
STA 12+00.00



STA 16+00.00



STA 19+00.00



STA 30+00.00

							GM
							GM
							GM
							LB
							LB
DSN BY	LB		5	12/20/23	COCOA UTILITIES DEPT. COMMENTS		
DRN BY	LB		4	02/22/23	COCOA UTILITIES DEPT. COMMENTS		
CHK BY	JWM		3	02/01/23	COCOA UTILITIES DEPT. COMMENTS		
			2	07/15/22	BREVARD COUNTY COMMENTS		
APPR BY	JWM		1	05/25/22	COCOA UTILITIES DEPT. COMMENTS		LB
			NO.	DATE	REVISION DESCRIPTION		BY

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

SECTIONS & DETAILS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

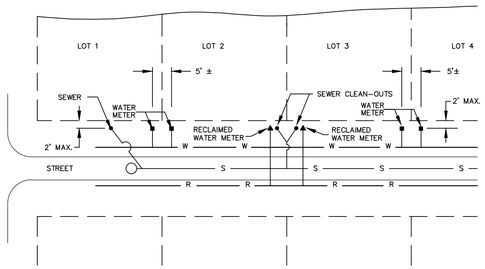
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TYPICAL LOT SERVICE LINE LOCATION

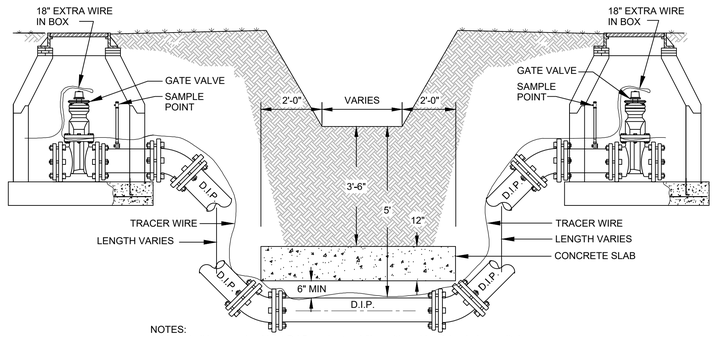
NTS DATE: JULY 2021

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)								
TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90° BEND	21	29	38	45	53	66	79	91
45° BEND	9	12	16	19	22	45	33	38
22-1/2° BEND	5	6	8	9	11	14	16	19
11-1/4° BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3
6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

RESTRAINED PIPE TABLE WATER & RECLAIMED WATER MAINS

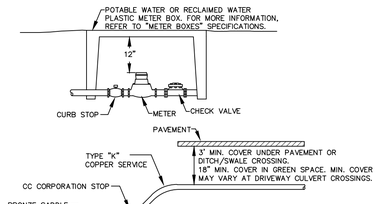
NTS DATE: JULY 2021



NOTES:
1. Main shall be restrained joint D.I.P. and extend 5' on either side of the drainage ditch.
2. Concrete slab shall be 2' wider than the pipe O.D. and a minimum width of 6 feet.
3. Concrete shall be 2500 PSI compressive strength with fibermesh reinforcement.
4. Per FDEP, isolation valve closest to the water source will have 2 permanent taps and will be in a manhole.

CANAL OR DRAINAGE DITCH CROSSING

NTS DATE: JULY 2021



NOTE:
TRAFFIC RATED H-20 FOR METER BOXES IN HIGH TRAFFIC AREAS SEE APPENDIX A, APPROVED MATERIALS

NOTE:
1. WHEN WITHIN BREVARD COUNTY RIGHT-OF-WAY, ANY EXCAVATION WITHIN 8' OF THE EDGE OF PAVEMENT, OR 3' FROM THE EDGE OF SIDEWALK, WILL REQUIRE SHORING TO PREVENT UNDERMINING.

TYPICAL 3/4" – 2" SERVICE LINE

NTS DATE: JULY 2021

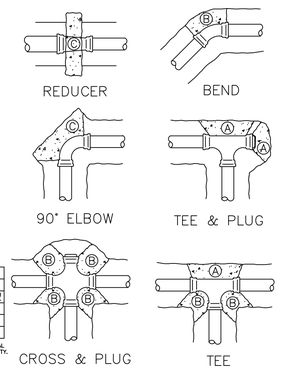
THRUST BLOCK NOTES

1.) WRAP ALL FITTINGS WITH POLYETHYLENE FILM BEFORE POURING THRUST BLOCK, MAKING CERTAIN TO KEEP CONCRETE AWAY FROM ALL BOLTS, GLANDS, AND FLANGES.
2.) THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.
3.) REQUIRED VOLUMES OF BEARING AREAS TO BE AS SHOWN IN CHART. ADJUSTMENTS, IF NEEDED, WILL BE ALLOWED TO CONFORM TO TEST PRESSURE AND ALLOWABLE SOIL BEARING STRESS AS SHOWN IN SPECIFICATIONS.
4.) BEARING AREA FOR TRANSIT BLOCKS ON HORIZONTAL BENDS IS BASED ON A TEST PRESSURE OF 150 P.S.I. AND SOIL BEARING STRESS OF 2,000 P.S.F.. THE DEPTH TO THE THRUST BLOCK BASE TO BE EQUAL TO OR GREATER THAN TWICE THE HEIGHT. (EXAMPLE: IF BLOCK IS 2' THICK, THE BASE IS TO BE NO GREATER THAN 4' BELOW GRADE.)
5.) VERTICAL BEND THRUST BLOCKS TO BE THE SAME AS HORIZONTAL BENDS.
6.) BEARING AREA OF THRUST BLOCK TO BE NOT LESS THAN ONE SQUARE FOOT.

MINIMUM BEARING AREA (SQ. FT.)

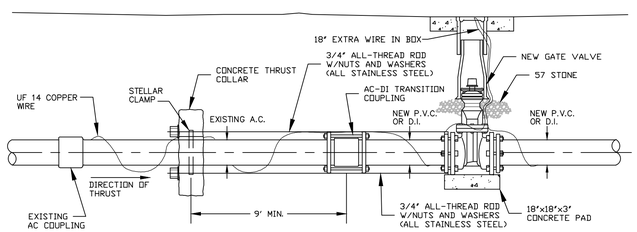
LETTER	PIPE SIZE						
	4"	6"	8"	10"	12"	16"	20"
A	1-1/2	2-3/4	5	7-1/4	10-1/4	18	27-1/2
B(22-1/2)	3/4	1	2	3	4	7	11
B (45°)	1	2-1/4	3-3/4	5-1/2	8	13-3/4	21
C	2	4	7	11-1/4	14-1/2	25-1/4	39

THE FIGURES IN THIS TABLE REPRESENT AREA OF CONCRETE BLOCKING AGAINST THE VERTICAL TRENCH WALL OF UNDISTURBED EARTH IN SQUARE FEET AT 2000 P.S.F. SOIL BEARING CAPACITY.



THRUST BLOCK NOTES & DETAILS

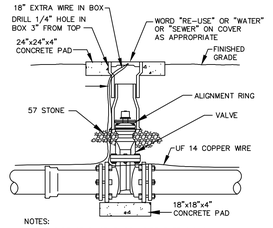
NTS DATE: JULY 2021



NOTE:
IF A.C. COUPLING IS LESS THAN 9 FEET FROM TIE-IN, THEN PLACE THE CONCRETE COLLAR BEHIND THE EXISTING COUPLING. REFER TO "THRUST COLLAR WATER & RECLAIMED" DETAIL.

A.C. PIPE TIE-IN

NTS DATE: JULY 2021

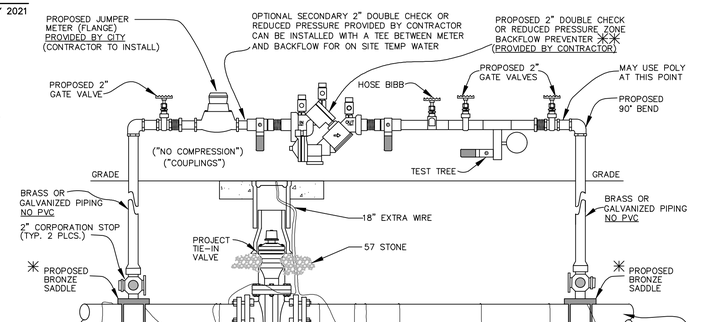


NOTES:
1. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. IF THE DEPTH OF THE VALVE NUT IS GREATER THAN 48" BELOW GRADE, OR 30" BELOW GRADE AND UNDER THE WATER TABLE, A VALVE EXTENTION WILL BE REQUIRED. SEE VALVE EXTENSION STEM DETAIL.
3. PROVIDE A PLASTIC DEBRIS SHIELD/ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 24" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.

THIS DETAIL APPLIES TO ALL BURIED VALVES.

GATE VALVE & VALVE BOX

NTS DATE: JULY 2021



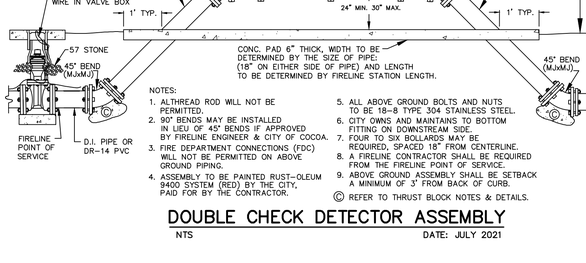
✱ INLET: AWWA TAPER ("CC") THREAD OUTLET: F.I.P. THREAD

✱✱ BACKFLOW PREVENTER TO BE TESTED AFTER INSTALLATION. CONTRACTOR TO PROVIDE TEST RESULTS TO INSPECTORS.

NOTES:
1. REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED WATER MAIN IMPROVEMENTS.
2. ONLY EXCEPTION TO JUMPER AND METER ASSEMBLY IS INSTALLATION OF FIRE HYDRANT WHERE AN ANCHORING NIPPLE IS USED.

JUMPER METER ASSEMBLY

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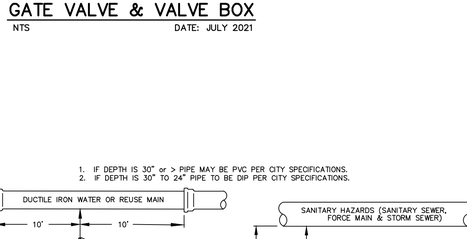


NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. 90° BENDS MAY BE INSTALLED IN LIEU OF 45° BENDS IF APPROVED BY FIRELINE ENGINEER & CITY OF COCOA.
3. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
4. ASSEMBLY TO BE PAINTED RUST-OLEUM 9400 SYSTEM (RED) BY THE CITY, PAID FOR BY THE CONTRACTOR.
5. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18-8 TYPE 304 STAINLESS STEEL.
6. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
7. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
8. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.
9. ABOVE GROUND ASSEMBLY SHALL BE SETBACK A MINIMUM OF 3' FROM BACK OF CURB.

Ⓒ REFER TO THRUST BLOCK NOTES & DETAILS.

DOUBLE CHECK DETECTOR ASSEMBLY

NTS DATE: JULY 2021



PIPE SIZE (INCHES)	A	B	C
4	18"	6"	6"
6	18"	6"	6"
8	24"	6"	6"
10	24"	8"	8"
12	30"	8"	8"
16	SEE NOTE	12"	12"
20	SEE NOTE	18"	18"

FORM & POUR SUPPORT BLOCK ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED & BEFORE LINE STOP MACHINE IS MOUNTED FOR 16"–20", A= LENGTH OF FITTING PLUS 6"

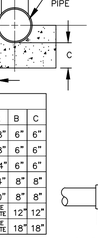
NOTES:
4"–8" LINE STOP REQUIRES 1" BLEEDER TAP
10" AND LARGER REQUIRES 2" BLEEDER TAP
SEE "SERVICE CONNECTION" SPECIFICATIONS
SEE APPENDIX "A" FOR APPROVED MATERIAL

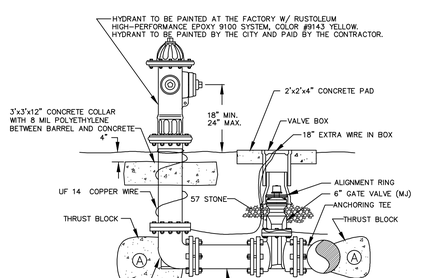
CONCRETE ANCHOR SUPPORT

LINE STOP DETAIL

NTS DATE: JULY 2021

LINESTOP SPECIFICATIONS: SEE SECTION 1.2.4.5



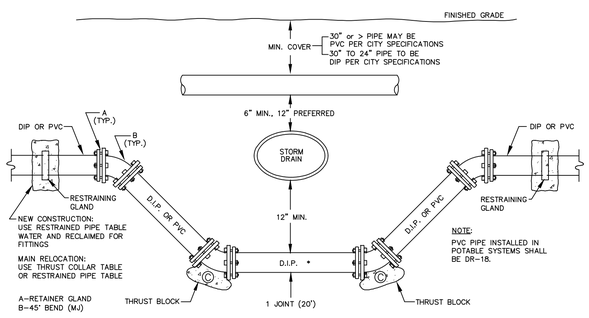


NOTES:
1. CITY CREWS WILL APPLY FINISH PAINT COAT.
2. HYDRANT RISERS WILL NOT BE PERMITTED.
3. FIRE HYDRANT WILL HAVE 18-8 TYPE 304 STAINLESS STEEL BOLTS AND NUTS (BONNET, TRAFFIC FLANGE AND SHOE).
4. SEE "FIRE HYDRANTS" SPECIFICATIONS.
5. PAINT PAID BY THE CONTRACTOR.

Ⓐ REFER TO THRUST BLOCK NOTES AND DETAILS.

FIRE HYDRANT ASSEMBLY

NTS DATE: JULY 2021



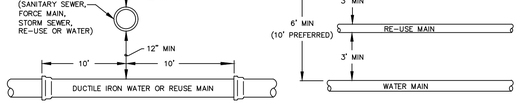
NOTE:
PVC PIPE INSTALLED IN POTABLE SYSTEMS SHALL BE DR-18.

PER FDEP 62-555.314

* ALL PIPING UNDER STORM DRAINAGE TO BEDIP PER CITY SPECIFICATIONS
ALL PIPE CLEARANCES TO BE PER FDEP SPECIFICATIONS (CHAPTER – 62 – 610 FAC)

STORM DRAIN CROSSING

NTS DATE: JULY 2021



1. IF DEPTH IS 30" or > PIPE MAY BE PVC PER CITY SPECIFICATIONS.
2. IF DEPTH IS 30" TO 24" PIPE TO BE DIP PER CITY SPECIFICATIONS.

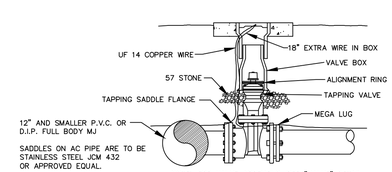
VERTICAL CLEARANCE

PER FDEP 62-555.314

HORIZONTAL CLEARANCE

TYPICAL REQUIRED SEPARATION

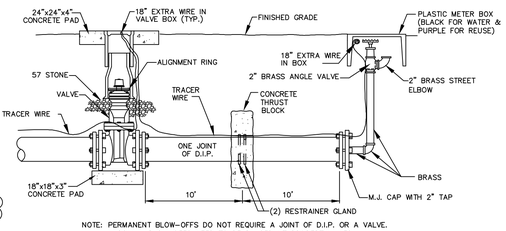
NTS DATE: JULY 2021



NOTE: FOR VALVE ASSEMBLY, SEE "VALVE" DETAIL.

TAPPING SADDLE AND VALVE

NTS DATE: JULY 2021



NOTE: PERMANENT BLOW-OFFS DO NOT REQUIRE A JOINT OF D.I.P. OR A VALVE. ALSO ALL BLOW-OFFS NEED TO BE PLACED AT PROPERTY LINES.

PROPER AMOUNT OF RESTRAINED PIPE UPSTREAM OF VALVE MAY BE USED IN LIEU OF THRUST COLLAR.

2" BLOW-OFF (10" WATERMAIN & SMALLER)

NTS DATE: JULY 2021

NOTES:
1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

NO.	DATE	REVISION DESCRIPTION	BY
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB
2	07/15/22	BREVARD COUNTY COMMENTS	LB
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM

APPR BY JWM
DRN BY LB
CHK BY JWM
DSN BY LB

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD WATER DETAILS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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Phone:321.453.0010 WWW.DRMP.COM
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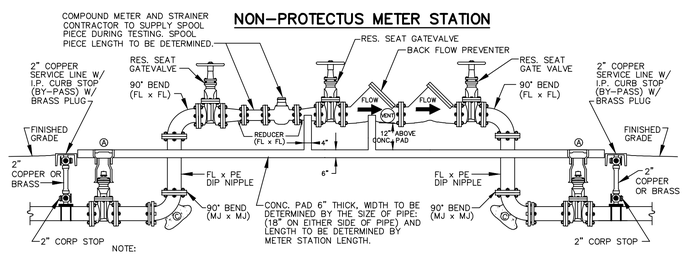
JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: **C 11.0**

City of Cocoa, Florida
Utilities Department
Updated October 2022

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 11-16 DETAILS.dwg Plotted: Dec 20, 2023 - 3:17pm by gmatchett



NON-PROTECTUS METER STATION

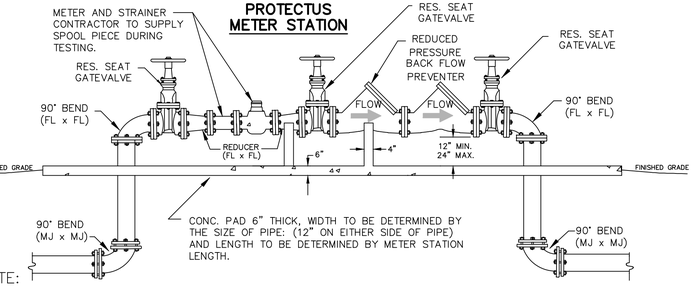
NOTE:

1. ASSEMBLY IS TO BE PAINTED RUST-O-THANE NO. 9407-1854 (BLUE)
2. ALL ABOVE GROUND BOLTS AND NUTS TO BE #304 STAINLESS STEEL.
3. ALTHREAD ROD WILL NOT BE PERMITTED.
4. 12" MIN. CLEARANCE FROM THE VENT ON THE BACKFLOW PREVENTER TO THE CONCRETE PAD.
5. 45° BENDS MAY BE USED WHEN PRIOR APPROVED BY ENGINEER.
6. ALL FITTINGS ARE RESTRAINED.
7. IN LIEU OF CONCRETE SUPPORTS, ADJUSTABLE STAINLESS STEEL SUPPORTS ALLOWED.
8. 2" COPPER SERVICE LINE TO BE INSTALLED ON BRASS SADDLE OR WELDED BOSS. 2" BRASS MAY BE USED IN LIEU OF COPPER.
9. ABOVE GROUND ASSEMBLY SHALL BE SET BACK A MINIMUM OF 3' FROM BACK OF CURB.

Ⓐ REFER TO GATE VALVE & VALVE BOX DETAIL.
Ⓒ REFER TO THRUST BLOCK NOTES & DETAILS.

3" AND LARGER METER WITH BACKFLOW PREVENTER ABOVE GROUND INSTALLATION

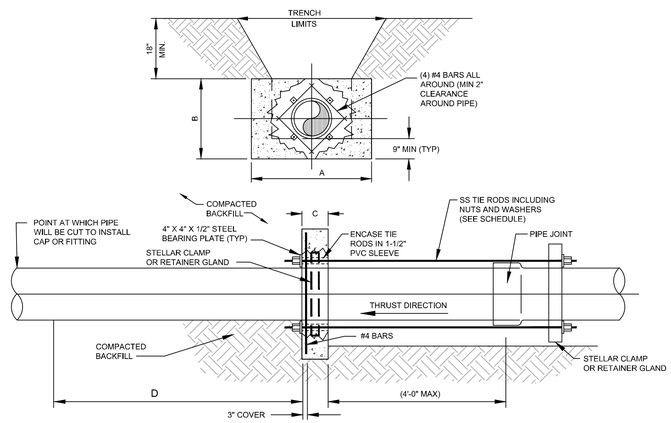
NTS DATE: OCT. 2022



PROTECTUS METER STATION

NOTE:

1. ASSEMBLY IS TO BE PAINTED RUST-OLEUM 9400 SYSTEM (BLUE) BY THE CITY, PAID FOR BY THE DEVELOPER.
2. ALL ABOVE GROUND NUTS, BOLTS, AND WASHERS TO BE #304 STANLESS STEEL
3. ALTHREAD ROD WILL NOT BE PERMITTED
4. METER IS TO BE NEPTUNE HIGH PERFORMANCE PROTECTUS III FIRE SERVICE METER WITH STRAINER, PROVIDED BY THE CITY AND PAID BY THE CONTRACTOR.
5. REDUCED PRESSURE BACK FLOW PREVENTER IS TO BE FIRE RATED: FEDCO, AMES, WATTS, CLAS-VAL, WILKINS (ZURN), HERSEY



SCHEDULE OF DIMENSIONS AND MATERIALS						
PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA. (in.)	NO.
4	2.0	2.0	1.0	2.0	3/4	2
6	2.0	2.0	1.0	4.0	3/4	2
8	3.0	3.0	1.0	5.0	3/4	2
10	4.0	3.0	1.0	8.0	3/4	4
12	5.0	3.0	1.0	10.0	3/4	4
16	*	*	*	*	*	*
20	*	*	*	*	*	*
24	*	*	*	*	*	*

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING. SOIL DENSITY ASSUMED 120 PCF. SOIL COHESION 20".

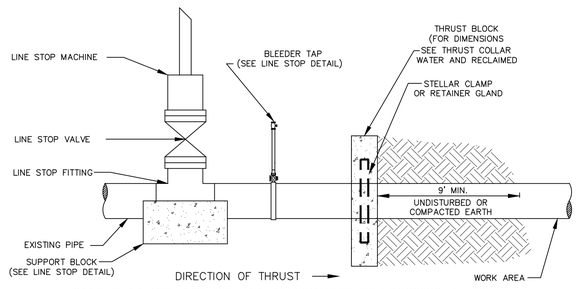
NOTES:

1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 PSI.
7. TIE RODS TO BE 3/4" SS 18-8 TYPE 304.

* TO BE DESIGNED BY ENGINEER OF RECORD.

THRUST COLLAR - WATER AND RECLAIMED

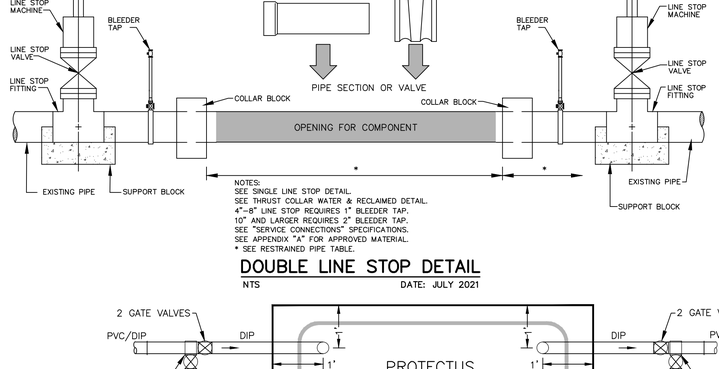
NTS DATE: JULY 2021



FORM & POUR SUPPORT BLOCK AND THRUST COLLAR ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED & BEFORE LINE STOP MACHINE IS MOUNTED.

LINE STOP W/THRUST COLLAR

NTS DATE: JULY 2021



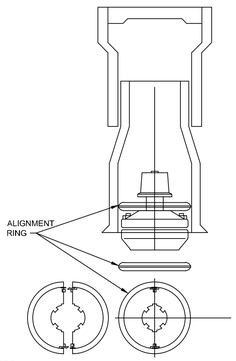
NOTES:
SEE SINGLE LINE STOP DETAIL.
SEE THRUST COLLAR WATER & RECLAIMED DETAIL.
4"-8" LINE STOP REQUIRES 1" BLEEDER TAP.
10" AND LARGER REQUIRES 2" BLEEDER TAP.
SEE "SERVICE CONNECTIONS" SPECIFICATIONS.
SEE APPENDIX "A" FOR APPROVED MATERIAL.
* SEE RESTRAINED PIPE TABLE.

DOUBLE LINE STOP DETAIL

NTS DATE: JULY 2021

MASTER METER ASSEMBLY METER STATION DETAIL

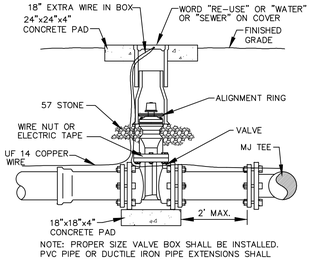
NTS DATE: OCT. 2022



NOTES:
1. FOR ALL VALVES REGARDLESS OF SIZE & DEPTH.

ALIGNMENT RING

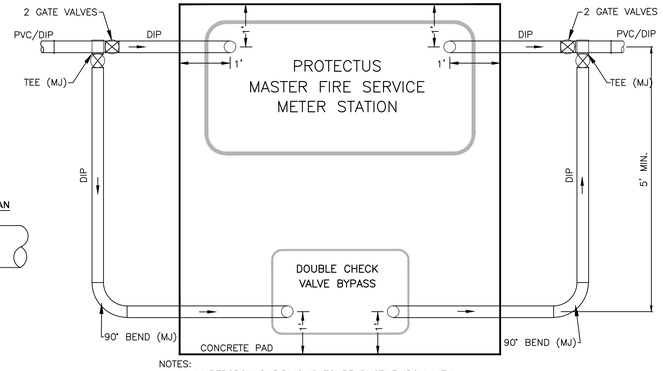
NTS DATE: JULY 2021



NOTE: PROPER SIZE VALVE BOX SHALL BE INSTALLED. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

GATE VALVE AND FITTING

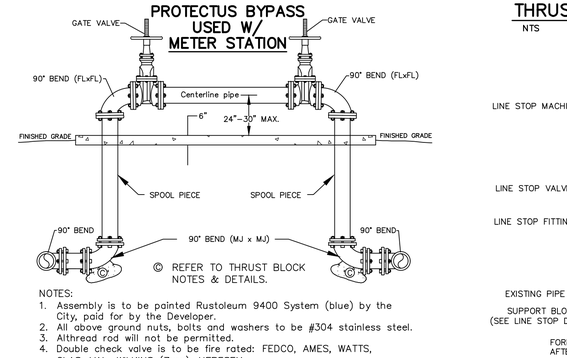
NTS DATE: JULY 2021



NOTES:
1. ALL UNDERGROUND PIPING IS TO BE DUCTILE IRON WITH RESTRAINED MECHANICAL JOINTS, POLYETHYLENE WRAPPED
2. PIPING SIZES TO BE DETERMINED BY THE ENGINEER OF RECORD AND APPROVED BY COCOA UTILITIES
3. ALL WORK IS TO CONFORM TO CITY OF COCOA STANDARDS.
4. PROTECTUS MASTER METER FOR UP TO 2" DIA. DOMESTIC & UP TO 10" FIRE LINES.

MASTER METER ASSEMBLY PLAN

NTS DATE: OCT. 2022

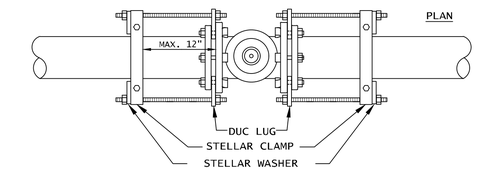


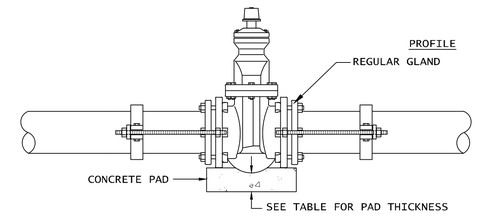
NOTES:
1. Assembly is to be painted Rustoleum 9400 System (blue) by the City, paid for by the Developer.
2. All above ground nuts, bolts and washers to be #304 stainless steel.
3. Althread rod will not be permitted.
4. Double check valve is to be fire rated: FEDCO, AMES, WATTS, CLAS-VAL, WILKINS (Zurn), HERESEY.
5. Concrete pad to be same elevation as top of existing meter vault. May require fill material.

PROTECTUS BYPASS USED W/ METER STATION

MASTER METER ASSEMBLY DOUBLE CHECK BYPASS

NTS DATE: OCT. 2022





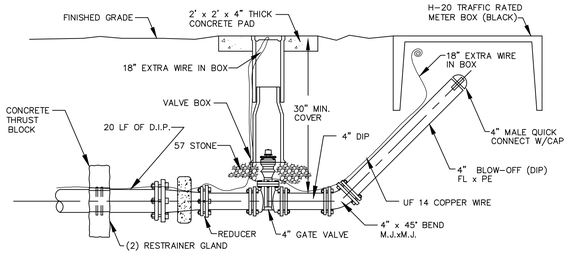
SIZE	MIN. COVER OF PIPE	CONCRETE PAD SIZE FROM LOWEST POINT OF FITTING
4"	24"	16"x16"x6"
6"	26"	18"x18"x6"
8"	30"	20"x20"x6"
*10"	36"	24"x24"x8"
*12"	40"	30"x30"x8"

* NOTE: 10" AND 12" REQUIRE TWO CLAMPS AND FOUR RODS PER SIDE.

VALVES INSTALLED PER MANUFACTURER'S RECOMMENDATION ON DIP AND PVC.

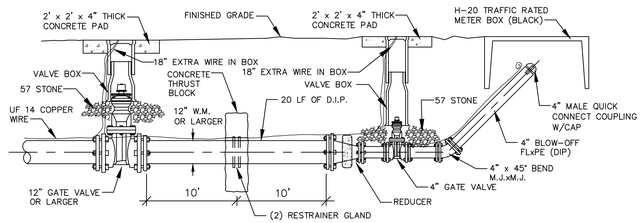
VALVE INSERT FOR A.C. PIPE

NTS DATE: JULY 2021



4" PERMANENT BLOW-OFF FOR 12" WATER MAINS & LARGER

NTS DATE: JULY 2021



4" TEMPORARY BLOW-OFF FOR 12" WATER MAINS & LARGER

NTS DATE: JULY 2021

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3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

City of Cocoa, Florida
Utilities Department
Updated October 2022

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5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
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2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB
DSN BY	LB		
DRN BY	LB		
CHK BY	JWM		
APPR BY	JWM		

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD WATER DETAILS

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

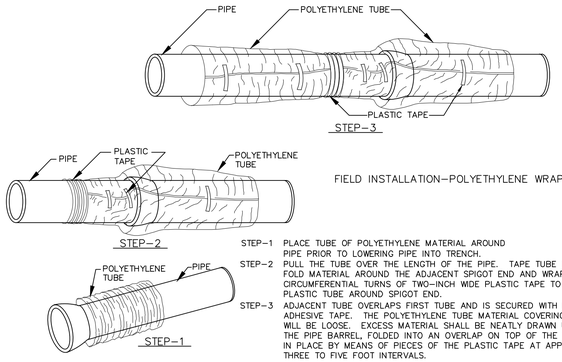
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JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: **C 12.0**

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 11-16 DETAILS.dwg Plotted: Dec 20, 2023 - 3:17pm by gmatchett



FIELD INSTALLATION–POLYETHYLENE WRAP

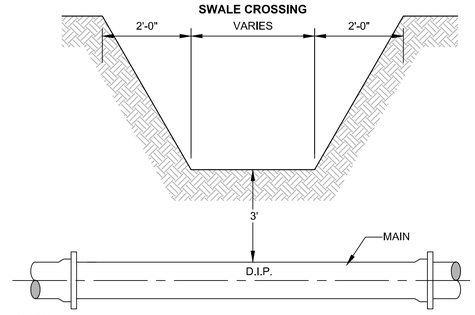
STEP–1 PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH.

STEP–2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF TWO–INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.

STEP–3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROXIMATELY THREE TO FIVE FOOT INTERVALS.

POLYETHYLENE WRAP

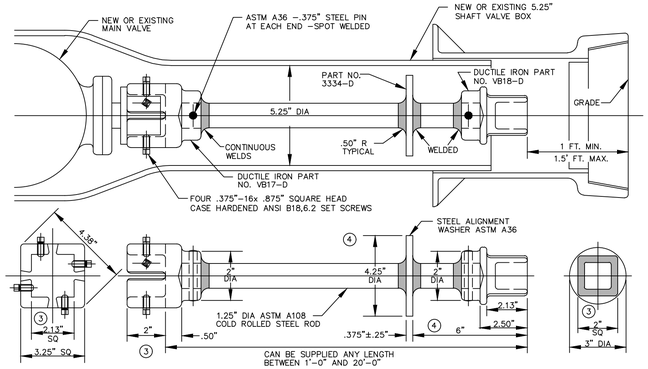
NTS DATE: JULY 2021



NOTES:
1. MAIN SHALL BE A CONTINUOUS LENGTH OF D.I. PIPE TO EXTEND 2 FEET MINIMUM EITHER SIDE OF THE DRAINAGE SWALE.
2. IF 1 OR MORE JOINTS OF PIPE IS REQUIRED, JOINT MUST BE RESTRAINED.

SWALE CROSSING DETAIL

NTS DATE: JULY 2021

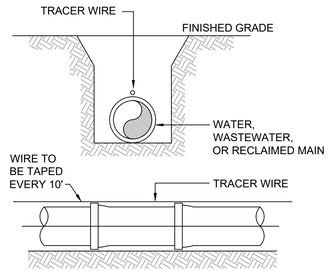


NOTE:
1. DUCTILE PARTS ARE TYPE 80–60–03 80/100,000 PSI TENSILE – ASTM A536
2. ASSEMBLY TO RECEIVE TWO COATS BITUMINOUS BASE BLACK PAINT
3. TOLERANCE + OR – .0625"
4. TOLERANCE + OR – .125"

TYPE "WVR" VALVE EXTENSION STEM
WSSC P&M/1.4 – APPLICABLE STOCK NO. 4840–0001–3

VALVE EXTENSION STEM FOR W.S.S.C. VALVE BOXES

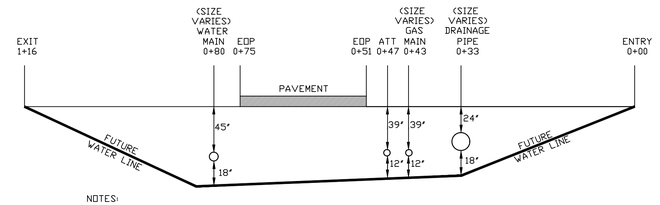
NTS DATE: JULY 2021



NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (UF 14 COPPER WIRE) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE TAPED EVERY 10' TO TOP CENTERLINE OF THE PIPE.
2. WIRE IS TO BE CONNECTED TOGETHER USING AN UNDERGROUND WIRE NUT WITH A SILICON BASED SEALANT.
3. SEE "TRACER WIRE" SPECIFICATIONS.

TRACER WIRE DETAIL

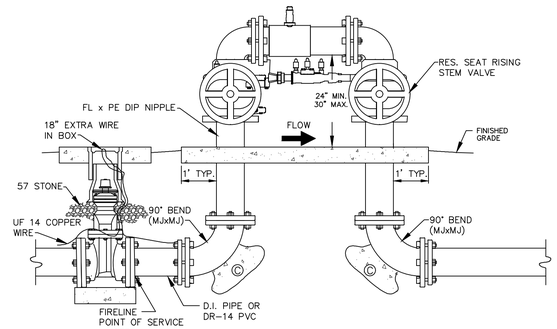
NTS DATE: OCT. 2022



NOTES:
1. BORE PLAN TO SHOW SIZE, DEPTH, AND LOCATION OF ALL UTILITIES.
2. BORE PLAN TO BE IN ACCORDANCE WITH LATEST TECHNICAL PROVISIONS.
3. BORE PLAN MUST BE APPROVED BY ENGINEERING DEPARTMENT PRIOR TO ANY CONSTRUCTION.
4. DEPTH OF BORE PER BREVARD COUNTY OR FDOT JURISDICTION.

TYPICAL BORE PLAN

NTS DATE: JULY 2021

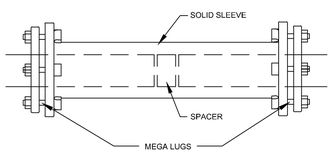


NOTES:
1. ALTHREAD ROD WILL NOT BE PERMITTED.
2. FIRE DEPARTMENT CONNECTIONS (FDC) WILL NOT BE PERMITTED ON ABOVE GROUND PIPING.
3. ASSEMBLY TO BE PAINTED RUST–O–THANE RED NO. 9405–1611
4. ALL ABOVE GROUND BOLTS AND NUTS TO BE 18–8 TYPE 304 STAINLESS STEEL.
5. CITY OWNS AND MAINTAINS TO BOTTOM FITTING ON DOWNSTREAM SIDE.
6. FOUR TO SIX BOLLARDS MAY BE REQUIRED, SPACED 18" FROM CENTERLINE.
7. A FIRELINE CONTRACTOR SHALL BE REQUIRED FROM THE FIRELINE POINT OF SERVICE.

© REFER TO THRUST BLOCK NOTES & DETAILS.

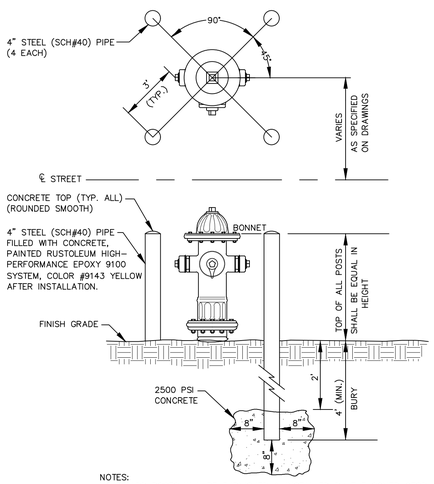
"N" PATTERN DOUBLE CHECK DETECTOR ASSEMBLY

NTS DATE: JULY 2021



SOLID SLEEVE DETAIL

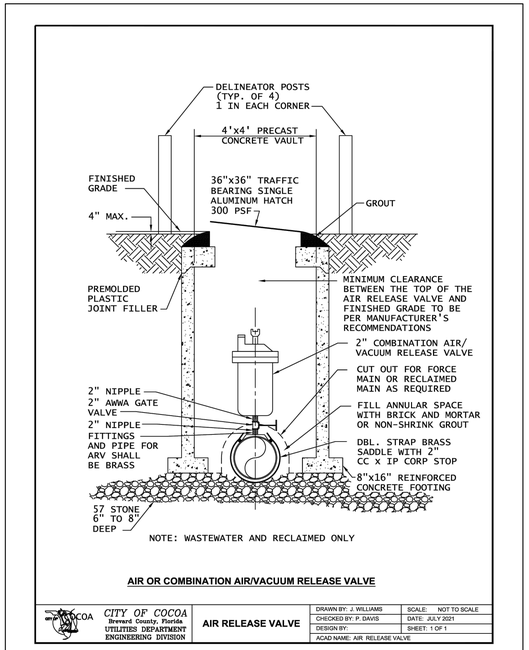
NTS DATE: JULY 2021



NOTES:
1. GUARD POSTS WILL BE FURNISHED & INSTALLED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. GUARD POSTS SHALL BE INSTALLED PLUMB AND LOCATED TO ALLOW UNRESTRICTED ACCESS TO PUMPER AND HOSE CONNECTIONS.

FIRE HYDRANT GUARD POSTS

NTS DATE: JULY 2021



AIR OR COMBINATION AIR/VACUUM RELEASE VALVE

CITY OF COCOA Brevard County, Florida UTILITIES DEPARTMENT ENGINEERING DIVISION	AIR RELEASE VALVE	DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
		CHECKED BY: P. DAVIS	DATE: JULY 2021
		DESIGN BY:	SHEET: 1 OF 1
			ACAD NAME: AIR RELEASE VALVE

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: JWM | APPR BY: JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD WATER DETAILS

THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DO NOT SCALE THIS DRAWING

NOTES:
1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: C 13.0

City of Cocoa, Florida
Utilities Department
Updated October 2022

O:\merritt_island\Dwg\eng 4000–4999\412401 lakes at cocoa grove – 21–0569.000 drmp\21–0540.002 friday road utilities plan\402208 11–16 DETAILS.dwg Plotted: Dec 20, 2023 – 3:17pm by gmatchett

SECTION 1 - GENERAL INFORMATION

1.1 GENERAL

These Technical Provisions and Standard Details identifies design, installation, inspection, and acceptance specifications to be used for water, wastewater, and reclaimed water systems that will be maintained and operated by the City of Cocoa. All potable water, wastewater, and reclaimed water mains and appurtenances must be installed in accordance with this Manual, the City of Cocoa Cross Connection Control Program Manual, the City of Cocoa Utilities Handbook, and the approved plans.

Contractor requirements include:

- Furnishing all labor, materials, tools and equipment necessary or incidental to the construction.
- Obtaining and paying for all permits, inspections, and other official fees in connection with the work.
- Arranging a pre-construction conference with the Engineering Inspection Division. **All fees must be paid prior to the pre-construction meeting.** It is required that the pre-construction meeting be held prior to ordering materials.
- Scheduling materials inspection (24-hour notice), open ditch inspection, pressure/leakage test, and final inspection.
- Provide all documents per the project requirement letter, including but not limited to As Built Drawings, Bills of Sale, Easements, etc.
- Make certain that no public water/wastewater lines are placed on private property.

Technical information provided by the City shall be used for informational purposes only. The Contractor and Engineer of Record are responsible for verifying field conditions.

Any deviation from these requirements must be approved in writing by the Utilities Director or his designee prior to commencement of construction.

Fees charged by the City are set by City Council by resolution and are listed on the appendix "Water Service Rates and Charges" made a part of the Utilities Handbook. Fees are subject to change without notice. The most current fees will be charged.

The Utilities Department and Engineering Division are located at 351 Shearer Blvd., Cocoa, Florida, 32922. The telephone number is (321) 433-8701; facsimile number is (321) 433-8708.

1.2 DEFINITIONS

The term "**approved equal**" is used to mean a part or item that has been approved in writing by the Technical Provision and Standard Details Advisory Committee or the Utilities Director. A written request must be made in order to have an item accepted as an approved equal. Written specifications on the part or item must be furnished with the request.

Approved Tapping/Linestop Contractor - A Contractor who has been approved by the Engineering Division to perform taps or linestops within the Cocoa Water System. A current list is maintained and available through the Engineering Division.

Backflow Preventer Assembly - A backflow preventer assembly, also called a cross connection control (CCC) device, is a mechanical or non-mechanical device used to prevent the flow of water from a non-potable source to the potable water distribution system. Approved backflow preventers are testable assemblies composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly, and fitted with properly located resilient seated test cocks.

Canal - A trench, the bottom of which is normally covered by water, with the upper edges of its two sides normally above water.

City - Means the City of Cocoa.

Collection Mains - Wastewater gravity mains.

Competent Person - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Distribution Main - Any water main twelve inches (12") and smaller.

Domestic - Means made or manufactured in the USA.

Drainage Ditch or Irrigation Ditch - A man-made trench which is dug for the purpose of draining water from the land or for transporting water for use on the land and which is not built for navigational purposes.

Force Main - Wastewater main under pressure.

Manual - City of Cocoa Utilities Technical Specification and Standard Details Manual.

Normal Working Day - Monday through Friday, excluding CITY holidays.

Normal Working Hours - Hours are between the hours of 8:00 a.m. to 5:00 p.m. of a NORMAL WORKING DAY.

Passivated - Treated or coated metal to reduce the chemical reactivity of its surface.

Stainless Steel - A steel alloy with a minimum of 10.5% to 11% chromium.

Substantial Completion - The point when the construction project has been finished to the point that the City of Cocoa can use the project for the purpose it was intended.

Swale - A manmade trench which:

A. Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than three feet horizontal to one foot vertical;
B. Contains contiguous areas of standing or flowing water only following a rainfall event;
C. Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake;
D. Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area to prevent erosion and reduce pollutant concentration of any discharge.

Technical Provision and Standard Details Committee - Committee whose members shall consist of the manager, or their designee, of the following UTILITIES staff: Engineering, Inspections, Water Field Operations, and Sewer Field Operations. The committee evaluates and proposes revisions for the design standards, specifications, drawings, products and procedures for the Manual.

Transmission Main - Any water main sixteen inch (16") and larger. Fourteen-inch (14") pipelines are not acceptable.

Utilities - Utilities Department of the City of Cocoa, Cocoa, Florida, and/or its designated representative(s).

Utilities Handbook - The City of Cocoa Utilities Handbook produced by the Customer Service Division of the Finance Department.

Whenever a specification from a specific source is cited, the most current revision of that specification will be used. **The word "shall" is mandatory, and the word "may" is permissive.**

Unless otherwise specified, "**City**" means City of Cocoa; "**Utilities Department**" means City of Cocoa Utilities Department; "**Engineering Division**" means City of Cocoa Utilities Engineering Division, "**Inspections or Inspector**" means City of Cocoa Utilities Engineering Inspections Division.

1.3 ABBREVIATIONS

American Association of State Highway and Transportation Officials - AASHTO
Asbestos Cement - AC
Association of PVC Pipe Manufacturers - Uni-Bell
American National Standards Institute - ANSI
American Society of Civil Engineers - ASCE
American Society of Mechanical Engineers - ASME
American Society for Testing and Materials - ASTM
American Water Works Association - AWWA
American Water Works Association Tapered Thread - CC
American Society of Sanitary Engineers - ASSE
Automatic Transfer Switch - ATS
City of Cocoa - CoC
Copper Clad Steel - CCS
Copper Development Association - CDA
Cross Connection Control - CCC
Dimension Ratio - DR
Double Check Backflow Assembly - DC
Double Check Detector Assemblies - DCDA
Dry Film Thickness - DFT
Ductile Iron Pipe Research Association - DIPRA
Ductile Iron Pipe - DIP
Engineer of Record - EOR
Florida Administrative Code - FAC
Florida Department of Environmental Protection - FDEP
Florida Department of Transportation - FDOT
Florida East Coast Rail Road - FECRR
Foundation for Cross-Connection Control and Hydraulic Research - FCCCHR
Flange - FL
Factory Mutual - FM
High-Density Polyethylene - HDPE
Horizontal Directional Drilling - HDD
Jack and Bore - J&B
Maintenance of Traffic - MOT
Manual on Uniform Traffic Control Devices - MUTCD
National Association of Corrosion Engineers - NACE
National Fire Protection Association - NFPA
National Sanitation Foundation - NSF
National Standard Thread - NST
Non-rising stem - NRS
Original Equipment Manufacturer - OEM
Outside Screw and Yoke - OS&Y
National Pollution Discharge Elimination System - NPDES
Plain End - PE
Polyvinylchloride - PVC
Precautionary Boil Water Notice - PBWN
Portable Changeable Message Signs - PCMS
Pre-stressed Concrete Cylinder Pressure Pipe - PCCP
Project Manager - PM
Pounds per Square Inch - PSI
Raised Pavement Marker - RPM
Reduced Pressure Backflow Assembly - RP
Reduced Pressure Detector Assembly- RPDA
Reinforced Concrete Pressure Pipe - RCP
Stainless Steel - SS
Technical Provision and Standard Details - TPSD
Traffic Control Plan - TCP
Underwriters Laboratories - UL
Unified Numbering System - UNS
Variable Frequency Drive - VFD

SECTION 2 - WATER - POTABLE AND RECLAIMED

2.1 WATER MAIN CROSSINGS

2.1.1 GENERAL

In all cases where sanitary gravity or force mains cross water mains the crossing shall meet the vertical and horizontal separation requirements of FAC Rule 62-555.314. When separation requirements cannot be met, the Engineer of Record must propose an alternative solution that meets the requirements of FAC 62-555.314 for approval by the Engineering Division. The water main should cross above the sanitary main, when the water main must cross below the sanitary main, the minimum separation shall be 12 inches.

2.2 MATERIALS SPECIFICATIONS

2.2.1 PIPE

2.2.1.1 Polyvinyl Chloride Pressure Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (sizes 4" through 12") will be cast iron pipe equivalent outside diameter Class 235 (DR 18) conforming to the American Water Works Association's (AWWA) specification C900 and will be blue or white in color. Pipe will be in standard 20-foot lengths. All joints will be of the elastomeric-gasket type with thickened, integral solid-wall bell or coupling with the same DR as the barrel. All PVC pipe and couplings will bear the UL label and NSF approval for potable water.

2.2.1.2 Fusible Polyvinyl Chloride Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (size 4" through 12") will be cast iron pipe equivalent outside diameter and a pressure rating of 235 PSI (DR 18) conforming to AWWA specification C900 and will be blue or white in color. Fusible PVC pipe shall be supplied by Underground Solutions, Inc. It shall be installed in accordance with the suppliers' specifications. All PVC pipe will bear the UL label and NSF approval for potable water.

2.2.1.3 Ductile Iron Pipe

Ductile iron pipe will be cement-lined pressure Class 350 for 12-inch diameter and smaller and Class 250 for 16-inch and larger conforming to AWWA specification C151. Water main and storm drain crossing conflicts will be properly designed by the project engineer and approved by the Utilities Department prior to installation. Water mains that are less than 10 feet apart from building foundations or other permanent objects will be ductile iron pipe. In no case will water mains be located less than 5 feet from foundations. The above distances will be doubled for water mains larger than 8" in diameter. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be blue for water mains.

2.2.1.4 High Density Polyethylene (HDPE) Pipe

HDPE pipe is generally not accepted in the City of Cocoa water system, except as a carrier pipe for a pressurized utility main.

2.2.1.5 Reclaimed Water

PVC pipe installed in reclaimed water systems will be Class 235 (DR 18) conforming to AWWA specification C900 and will be purple in color. Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 16" and larger, provided 3 feet of cover can be maintained. Where cover is less than 3 feet, pressure Class 350 is required. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be purple for reclaimed water mains.

2.2.2 VALVES, VALVE BOXES, AND VALVE EXTENSIONS

2.2.2.1 Resilient Seat Gate Valves, 4" - 36"

Resilient seat gate valves will have mechanical joint ends as manufactured by **American Flow Control; AVK; M&H; U.S. Pipe; Clow; Mueller** or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 or C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be fully encapsulated to gate. Valves will have 18-8 Type 304 Stainless Steel bolts and nuts. The interior and exterior of the valve body will be fusion-bonded epoxy coated in accordance with AWWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the resilient seat is not acceptable. Valves will be supplied with 2"-square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction. Valves 16" and larger will have Bevel Gear Operators. For gate valves 16" and larger to be stood up straight, the 2" operating nut must have 12" of cover. Engineer of Record or Contractor must demonstrate the 12" of cover over the 2" operating nut can be achieved by showing all pertinent dimensions. Tapping valves shall have a centering ring.

2.2.2.2 Butterfly Valves, 16" and Larger

Butterfly valves shall be used for above ground service. Butterfly valves shall have flanged ends, be rubber seated, 90o tight closing type, short body. The interior and exterior will be fusion-bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of 316 Stainless Steel. Body dimensions and minimum shaft diameter will be in accordance with Tables 1 and 3 of AWWA specification C504. The valve seat will be of molded natural or synthetic rubber, will be mechanically secured to the disc or to the valve body, and will mate against a stainless-steel seat surface. The gear ratio will be such as to require not more than 50-foot pounds of input torque to operate the valve against the worst case of a water flow velocity of 10 feet per second at a pressure of 100 psi differential. A torque-limiting device will be supplied if the allowable operator input is less than 450-foot pounds. Butterfly valves will have a factory installed hand wheel. The valve will open when the operator nut is turned counterclockwise. **Butterfly valves will not be used for buried service.**

2.2.2.3 Valves, 2"

Two-inch valves for use with the 2" blow-off gate valve will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all EPA and DEP requirements regarding lead and zinc contents. Brass fittings and 2" brass wheel valves are shall be used on blow-offs. All valves must be manufactured in the U.S.A.

2.2.2.4 Valve Boxes

Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by East Jordan Iron Works or Tyler and must have 5-1/4" minimum inside diameter. Cast iron valve boxes will consist of a circular cast iron top and bottom section. The depth must be determined, and the appropriate valve box must be installed. No PVC or Ductile is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot. A Valve identification plate engraved to indicate the type, size, and number of turns will be securely anchored to the concrete pad. Valve identification plates for valves 12" and larger will also indicate the torque necessary for actuation.

2.2.2.5 Valve Extensions

If the depth of the valve nut is greater than 48" below grade, or 30" below grade and under the water table, a valve extension stem will be required. The extension will have a centering collar and will be mechanically attached to the valve operating nut, such as extensions manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Engineering Supervisor or his/her designee.

2.2.2.6 Valve Box Debris Shield

All buried valves 4-inch through 12-inch requiring a valve box shall be furnished with a valve box shield (alignment device). The device shall minimize debris infiltration and center the valve box over the operating nut. The device shall be of HDPE or plastic and colored white or black. It shall be furnished in two pieces that will lock together under the operating nut without requiring the removal of the operating nut. The device shall not affect the operation of the valve. No one-piece device will be accepted. The device shall be **Box Lok, American** or approved equal.

2.2.2.7 Insert Valve Specification

The Insert Valve shall conform to the following:

The Ductile Iron 250 p.s.i.g. Insert Valve shall be a Resilient Wedge Gate Valve designed for use in potable water, raw water, reclaimed water, wastewater and backflow control systems. The host pipe shall not be a permanent component of the Insert Valve. The ductile iron body, bonnet, and wedge provide strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Insert Valve shall be ductile iron construction meeting ASTM A536 Grade 65-45-12.Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The Insert Valve shall have a 250 psig maximum working pressure. The pressure rating markings must be cast into the body of the insert valve. The construction of the Resilient Wedge shall comply with AWWA C509 requirements. The ductile iron wedge shall be fully encapsulated with EPDM rubber by a high pressure and high temperature compression or injection mold process. The resilient wedge shall seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. The Resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel. The insert valve is fully epoxy coated on the interior and the exterior. Valve shall be coated with a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The stuffing box, operating stem and resilient wedge (complete bonnet and all moving parts) shall be removable, repairable and or replaceable under pressure.

See "Appendix A" Approved Materials for approved Insert Gate Valves.

2.2.3 BACKFLOW PREVENTERS

2.2.3.1 General

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly as required in the "City of Cocoa Cross Connection Control Program Manual". Backflow preventer assemblies shall be in accordance with AWWA specification C510, ASSE 1048, UL 1469, and as listed in "Appendix A" of this document. All backflow preventers shall be installed per Standard Details in "Appendix B". Backflow preventers on fire line and commercial services shall have test certifications submitted and approved prior to final inspection.

Backflow preventers will have interior fusion bonded epoxy coating 5 to 12 mils and will be installed above grade in accordance with manufacturer's recommendations on a concrete slab adjacent to the meter. Check valves must have bronze seats.

Commercial Services: Cross connection control device required for commercial service, including multi-family residences, shall be a reduced pressure (RP) backflow preventer unless otherwise approved by the Engineering Division.

Residential Services: Cross connection control device required for residential service shall be a dual check backflow preventer.

Construction Sites: Cross connection control device required for temporary construction jumpers shall be a double check backflow preventer. The Contractor shall provide test certifications on the jumper backflow preventer before the jumper is placed into service.

2.2.3.2 Fire Services

Cross connection control devices for fire line systems shall be double check detector assemblies (DCDA) or reduced pressure detector assemblies (RPDA). DCDA and RPDA shall meet the requirements of the Florida Building Code and must be supplied with a ¾-inch or larger bypass assembly. DCDA will be accepted as a complete approved assembly in accordance with the section on "Backflow Prevention and Cross-Connection Control" in the Utilities Handbook. The Engineering Division will inspect the interior of the DCDA prior to installation. DCDA must be installed horizontally above ground in a grassed or non-traffic area. The DCDA will be installed with 24" minimum and 30" maximum clearance from finished grade. "N" shaped DCDA will be accepted on a case-by-case basis. Fire lines requiring an RPZ will be handled on a case-by-case base. The Engineering Division shall paint the DCDA, to be paid for by the Developer/Contractor.

2.2.3.3 Meter Station Backflow Preventer

Backflow Preventers for the large meter stations (3-inch and larger) are a Reduced Pressure Zone Assembly and manufactured in accordance with AWWA C511. The assembly will be installed so as the relief valve opening will be a minimum of 12" above concrete slab. If the meter station is in a planter, the top of the planter is considered the flood rim and the relief valve opening shall be 12" above the concrete slab. The Engineering Division shall paint the meter station assembly, to be paid for by the Developer/Contractor.

2-inch meter stations may be allowed on a case-by-case basis as approved by the Engineering Division.

2.2.3.4 Backflow Preventer Certification Test

The Contractor will provide test certifications on the jumper backflow preventer before jumper is placed into service. Backflow preventers on fire-line and meter stations will have test certifications submitted and approved prior to final inspection.

2.2.4 FITTINGS

All fittings must be of the mechanical joint type with an approved joint restraint, or push-on joint with a gasket joint field restraint system. All fittings must be manufactured in the U.S.A.

2.2.4.1 Cast Iron

Cast iron fittings will be AWWA specification C110; Class 250, cement lined with inside seal coating. The fittings will be bituminous coated on the outside and be wrapped with 6 mil polyethylene (sealed with tape). Cast iron fittings are only to be used in larger applications where ductile iron fittings are not available.

2.2.4.2 Ductile Iron, 4" - 16"

Ductile iron compact fittings (sizes 4" through 16") must conform to AWWA specification C153. Ductile iron compact fittings will be mechanical joint with an interior cement lining with seal coating and an exterior bituminous coating. All fittings will be wrapped with 6 mil polyethylene (sealed with tape).

2.2.4.3 Bolts

All buried mechanical joint bolts and nuts must be CORTEN Steel. All above ground bolts and nuts for flanged fittings must be 18-8 Type 304 stainless steel. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.

2.2.4.4 Tapping Sleeve

Tapping sleeves on mains 4" to 12" in diameter will be all Stainless Steel Sleeves.

The All Stainless Steel Sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and full circumferential gasket to provide 360° seal around the pipe. The tapping sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage.

Sleeves on mains 16" to 24" in diameter will be fabricated steel with O-ring seal, fusion bonded, epoxy coated with 304 stainless steel nuts and bolts or M.J. ductile iron body. Sleeves on mains larger than 24" will be handled on a case-by-case basis.

Tapping Sleeves for reinforced concrete mains will be handled on a case-by-case basis. The sleeves will have a fusion-bonded epoxy coating on the entire body and throat assembly. The straps and bolts shall be 18-8 Type 304 stainless steel.

The tapping valve must have centering ring and conform to Section 2.2.2.1 "Resilient Seat Gate Valves" in these Technical Provisions.

Tapping saddles to be placed on asbestos concrete (AC) pipe shall be an **JCM A432** All Stainless Steel Sleeve or equal.

2.2.4.5 Line Stop Sleeve Specifications

Sizes 4" through 12"

Sleeve/Body
The entire Line Stop sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and provide 360° seal around the pipe. The line stop sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage. Outlet on sleeve will be full port, i.e. on 8" sleeve, outlet will be 8", on 6" sleeve, outlet will be 6".

Bolts, Nuts & Washers
18-8 Type 304 Stainless Steel, the bolts shall be track head type and furnished with permanently lubricated heavy-hex nuts and stainless washers.

Gasket
The full circumferential gasket shall be molded of synthetic rubber compounded for use with water salt solutions, mild acids, bases and sewage. The gasket shall have a gridded surface, be a full 1/4" thick with 304 stainless steel bridge plates molded flush into the gasket and have a raised hydromechanical outlet seal to seal against line surges and water hammer.

Pressure Rating
The sleeves shall be rated at 150 PSI hydrostatic with a test pressure of 200 PSI on pipe with a full circumferential break.

Line Stop Sleeves shall be a **JCM A440 Line Stop Sleeve** or approved equal.

2.2.5 FIRE HYDRANTS

Fire hydrants must be manufactured in accordance with AWWA specification C502. Hydrants must have bronze-to-bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Fire hydrants will have 18-8 Type 304 Stainless Steel bolts and nuts (bonnet, traffic flange and shoe).

Hydrants will have a minimum 5-1/4" main valve opening, with one 4-1/2" pumper nozzle, and two 2-1/2" hose nozzles. Nozzles to have NST threads. Stem couplings are to be cast iron or stainless steel. The upper valve plate must be bronze. The hydrant shoe will be coated inside with fusion-bonded epoxy, 6 mil minimum. All hydrants will be painted at the factory with Rustoleum high-performance epoxy 9100 system, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow. City crews will apply finish paint to each new fire hydrant after the Contractor has paid the appropriate fees.

Finish grade is to be established and the proper length hydrant is to be installed by the Contractor prior to acceptance by the City. All nozzles will be a minimum of 18" and a maximum of 24" above finished grade. A 6" mechanical joint hydrant connection will be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on 6" plain end branch. The Contractor will not be allowed to install risers on hydrants. At final inspection, if it is determined that a fire hydrant is not at grade, the Contractor shall purchase a proper length hydrant and install it under the direction of the Engineering Division.

2.2.6 SERVICE CONNECTIONS, 3/4"-2"

All service connections will be single connections. Services that are 3/4" and 1" are to be type K annealed temper soft copper. All connections are to be of the flare type. 1-1/2" and 2" services are to be of type K drawn temper in straight lengths or annealed temper if furnished in coils. Absolutely no lead-based solder joints will be accepted. Any repairs of service lines will be by flare-to-flare coupling. No compression fittings will be accepted. Taps in the pipe will be the same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shellcutter designed to cut PVC pipe, and the PVC plug will be removed.

Brass goods furnished under this specification shall be new and unused. All fittings shall conform to ANSI/AWWA Standard C800, latest revision.

All brass components in contact with potable water must be made from either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of .25% by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.2 are not approved. All service fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61. All fittings shall be stamped or embossed with a mark or name indicating that the product is manufactured from the low-lead alloy as specified above.

Brass saddles shall be made from CDA/UNS C83600 and are exempt from the "no lead" requirement.

2.2.6.1 Saddles

Saddles must be used for all connections to PVC, AC and D.I. pipe. Saddles must be all brass with "CC" threads as manufactured by **Mueller Company**, or **Ford Meter Box Company.** The pipe sizes for these manufacturers are noted below (approved materials are also listed in "Appendix A"):

MUELLER: For ductile iron pipe sizes 4" to 12", for 3/4" and 1" services, the single strap design must be used. For 1-1/2" and 2" services, the BR 2 B double strap design must be used.

FORD: For pipe sizes 4" to 12", for 3/4" and 1" services, the style 101B single strap design must be used. For 1-1/2" and 2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 3/4", 1", 1-1/2," and 2" services, the style 202B double strap design must be used.

An approved equal may be used in lieu of any of the above-listed designs/models.

2.2.6.2 Curb Stops, 3/4" - 2"

Curb stops 3/4" and 1" in size will be flare-by-meter coupling. **Curb stops must have locking wings and a swivel meter nut**. Curb stops that are 1-1/2" or 2" will be flare-by-meter flange with locking wing or an approved equal. All curb stops shall be centered in the meter box and installed in a horizontal position.

2.2.6.3 Corporation Stops, 3/4" - 2"

All corporation stops for water service ¾" thru 2" will be brass and have "CC" inlet threads and copper flare outlet. 2" Corporation stops for "jumpers" will be "CC"-by- F.I.P.

2.2.6.4 Meter Boxes

Meter boxes for radio-read meters must have a lid compatible with City's AMR meter antennae (4-1/2" round). Service locations will be permanently cut and painted on concrete curb or the street with a blue "W" for potable water or a purple "R" for reclaimed. Reclaimed services will be located at the opposite lot corner from water services where practical or with five feet minimum separation.

For larger 1-1/2 and 2-inch meters, 17" x 30" meter boxes shall be used.

Meter boxes shall have the appropriate ANSI/SCTE 77 load rating for their intended location: Meter boxes, located within paved ares subject to deliberate heavy vehicular traffic such as roadways, driveways, and parking lots shall be AASHTO H-20 load rated; otherwise, meter boxes shall be Tier 15 load rated.

Reclaimed Water services will be set in purple meter boxes of materials per above. They are also required to have a 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, which will be supplied. Tags will be inscribed, "RECLAIMED WATER DO NOT DRINK."

2.3 PROTECTION OF PROPERTY AND OBSTRUCTIONS

2.3.1 PROTECTION

Temporary supports and/or adequate protection and maintenance must be provided on all underground and surface structures encountered in the progress of the work. Structures that have been disturbed will be restored to a condition equal to their original state upon completion of the work.

2.3.2 OBSTRUCTIONS

All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans; however, Contractor is solely responsible for field verifying existing conditions. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans. Damage to other utilities will be at the Contractor's expense.

If the Contractor encounters any unforeseen obstructions during construction, the Contractor shall immediately cease work in that area and notify the Engineer of Record (EOR). The EOR shall design and provide detailed drawings to correct the situation. The drawings shall be submitted to the Engineering Division for approval. After approval by the Engineering Division, a set of approved drawings will be given to the contractor and they may resume work.

2.3.3 EXISTING ASBESTOS CEMENT WATERMAINS

In areas where asbestos cement water mains are existing, water main relocations or replacements may be necessary. If new construction of facilities is over, under, or near asbestos cement water mains, it shall require that the asbestos cement water main be changed out to polyvinyl chloride pipe or ductile iron pipe. All asbestos cement pipe that is replaced shall be removed and disposed of by the contractor unless specifically directed in writing by the City to abandon in place. New pipe material shall depend upon the type and location of the facilities being constructed. The Developers Engineer shall design the replacement and submit it for the Engineering Division approval. The Developer is responsible for all design, materials, labor, equipment, testing, and costs for the replacement. Contractor shall remove and dispose of AC pipe in accordance with FAC Codes 62-204.800 and 62-257.

2.3.4 ABANDONMENT OF ASBESTOS CEMENT PIPE

Where asbestos cement water mains have been directed by the City to be abandoned in place they shall be filled with a sand/cement grout by the contractor. Grout shall be injected within the pipe sections to be abandoned where the ends of the sections shall be capped and or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections to prevent the potential for future collapse. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

The Contractor shall provide standpipes and/or additional means of visual inspections as required by the City to determine if adequate grout material has filled the entire pipe section(s).

2.4 TRENCH PREPARATION

2.4.1 EXCAVATION

A trench will be opened so that the pipe can be installed to the alignment and depth required. It will be excavated only so far in advance of pipe placement as necessary. The trench will be excavated to the depth required to provide a uniform and continuous bearing support for the pipe or undisturbed ground. Bell holes will be provided at each joint to permit jointing to be made and inspected properly.

During excavation, if ashes, cinders, muck or other organic material considered unsuitable is discovered at the bottom of the trench at sub-grade, unsuitable material will be removed and backfilled with approved material. This material will be compacted in layers to provide a uniform and continuous bearing characteristic of that area's soil condition. Where the bottom of the trench at sub-grade consists of unstable material to such a degree that it cannot be removed and replaced with an approved material to support the pipe properly, a suitable foundation must be constructed. Excavated material will be piled in such a manner that it will not endanger work or obstruct natural watercourses, sidewalks or driveways. Fire hydrants under pressure, valve boxes, or other utility controls will be left unobstructed and accessible at all times. Gutters will be kept clear or other satisfactory provisions will be made for street drainage.

2.4.2 SHORING AND BRACING

Open cut trenches must be sloped, shored or braced as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work. Trench bracing may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. The use of a trenching box may be used in place of sheeting and bracing where appropriate. The Contractor is required to have a Competent Person designated and in charge at all times while workers are in the trench.

2.4.3 DE-WATERING

Excess water must not be allowed in the trench at any time. An adequate supply of well points, headers or pumps, all in first-class operating condition, may be used to remove the water. The use of gravel and pumps will also be an acceptable means of removing the water. The trench will be excavated no more than the available pumping facilities are capable of de-watering. Discharge from pumps will be accommodated in accordance with the St. Johns River Water Management District's requirements. The Contractor is responsible for obtaining all de-watering permits such as NPDES permit.

2.5 PIPE LINE CONSTRUCTION

2.5.1 GENERAL

All water mains, service lines, and appurtenances must be installed as specified on the approved plans and in accordance with the Standard Detail Sheet. Installation will conform to AWWA specification C600 except as modified herein.

Domestic water service can only come from a Distribution main. When water service is requested and the only water main available is a Transmission main, a large tap and section of pipe shall be installed on the Transmission Main for the water service.

The minimum size tap on a Transmission Main shall be a six (6) inch.

2.5.2 MATERIAL HANDLING

2.5.2.1 Precautions

Every precaution will be taken to prevent damage to pipe and piping materials during transportation and delivery to the work site. Under no condition will pipe be dropped, bumped, dragged or picked up by inserting forks into end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.

2.5.2.2 Damaged Materials

If in the process of transportation, unloading or handling, any pipe or fitting is damaged, it will be rejected and removed from the site.

2.5.2.3 Storage

Pipe fittings and specials will be stored in a manner which will assure the protection of the material from damage and which will keep it clean.

2.5.3 INSPECTION OF MATERIALS

Materials delivered to the job site will be subject to inspection by the Engineering Division prior to installation. Contractor shall notify Inspections 24 hours in advance. All materials found to be defective or not meeting specifications during inspection or during the progress of the work will be rejected and removed from the job site without delay. All materials delivered to the job site will be in accordance with the materials specifications. Materials not inspected by the Engineering Division prior to installation will be uncovered by the Contractor at their expense to verify compliance with these specifications. The Contractor will furnish copies of the packing list(s) for materials upon demand.

2.5.4 PIPE PLACEMENT

The bottom of the trench will not be excavated below the specified grade. If undercutting occurs, the bottom of the trench will be brought up to the original grade with approved material and thoroughly compacted, as directed by the Engineering Division. Before placing pipe into the trench, the outside of the spigot and the inside of the bell will be wiped clean, dry, and free from oil and grease. Every precaution will be taken to prevent foreign material from entering the pipe. During placement operation, no debris, tools, clothing or other material will be placed in the pipe.

All mechanical joints will be made up in strict accordance with the manufacturer's specifications. Beveled ends will be removed from PVC pipe entering a mechanical joint. The bell will be carefully cleaned before the gasket is inserted. Gaskets must be evenly seated, the gland placed in position with the bolts, and evenly tightened. All slip joints will be made up in strict accordance with the manufacturer's specifications.

After placing a length of pipe in the trench, the spigot end will be centered in the bell, the pipe forced home, brought to correct alignment, and covered with an approved backfill material. Ductile iron pipe will be backfilled to the centerline of the pipe and compacted to ninety-five percent (95%) of standard Proctor T-99.

PVC pipe will be backfilled in accordance with the manufacture's recommendations for the laying conditions.

Pipe will be installed with 30" minimum cover. Maximum cover of 42" will be accepted. Cover depth will be determined from proposed finish grade as indicated on the plans. At times when pipe placement is not in progress, the open ends of pipe must be closed by a watertight plug or other approved means. This provision will apply during the lunch hour as well as overnight. If water is in the trench, the seal will remain in place until the trench is pumped completely dry.

All underground water main shall meet the horizontal and vertical separation requirements in FAC 62-555.314 as related to sanitary force main and gravity main, reclaim mains, and storm water gravity and force mains.

Pipe installed under swales shall be D.I. and have 3 feet minimum cover. D.I. pipe to be centered on swale. If more than one joint of pipe is necessary, restrained joint pipe is required. See "Swale Crossing" detail and definitions.

Pipe installed under canal or drainage ditch shall conform to all FDEP requirements. Pipe shall be restrained joint D.I. pipe with gate valves on both sides of canal/ditch. D.I. pipe shall have 5 feet minimum cover with a concrete cap. See "Canal or Drainage Ditch Crossing" detail and definitions.

2.5.5 TRACER WIRE

For the purpose of electronically locating pipe after it is buried, tracer wire will be installed with all potable, reclaimed, and wastewater mains in accordance with the Standard Detail Sheet. The color of the wire insulation shall be the same color as the color code for the pipe being installed. Insulation color shall be blue for potable, purple for reclaimed, and green for wastewater.

Tracer wire for pipe installed by direct burial will meet the following requirements: #12 AWG (0.0808" diameter) fully annealed copper wire, rated at 30 volts, insulated with a 30 mil, high density, high molecular weight polyethylene (HDPE) insulation, rated for direct burial use.

Tracer wire for pipe installed by directional drilling or jack & bore will meet the following requirements: #10 AWG (0.1019" diameter) fully annealed, high carbon 1055 grade steel, high strength solid copper-clad steel conductor (HS-CCS) rated at 30 volts, insulated with a 45 mil, high density, high molecular weight polyethylene (HDPE) insulation rated for horizontal directional drill use, average with minimum break load of 1,940 pounds.

Branch connections and tracer wire splices shall be connected together using a direct-bury wire connector filled with a dielectric silicone sealant.

Tracer wire shall be properly grounded at all dead ends and shall be achieved by use of a 1.5 pound drive-in magnesium grounding anode rod specifically manufactured for this purpose.

The tracer wire shall be installed in such a manner as to be able to properly trace all pipelines without the loss or deterioration of signal or without the transmitted signal migrating off the tracer wire. The tracer wire shall be installed as a continuous single wire. Except for approved spliced-in repair or replacement connections, tracer wire shall be continuous and without splices from each tracer wire access point.

Tracer wire shall be installed in the same trench and inside bored holes and casing with pipe during pipe installation. It shall be secured and taped to the top of the pipe and 10' intervals. Protect wire insulation from damage during installation and backfilling. Wire insulation that is broken, cut or damaged shall be replaced. If the pipe requiring tracer wire is over 8' deep, special circumstances exist and the installation method must be submitted to the Engineering Division for approval.

Provide no less than 18" of coiled wire at access points and valve boxes. A run of tracer wire must run from the main to each fire hydrant and each fire hydrant must have one wrap of the wire around the barrel located at final grade.

Where existing tracer wire is encountered on an existing utility that is being extended or tied into, the new and existing tracer wire splice shall be connected using a direct-bury wire connector. At all main end caps, a minimum of 6' of tracer wire shall be extended beyond the end of the pipe, coiled and secured to the cap for future connections and shall be properly grounded.

After all of the trench backfill operations are successfully completed, and prior to final paving, the Contractor shall perform continuity and trace tests on all newly installed tracer wire in the presence of an Inspector. If the tracer wire is found to not be continuous after testing, the Contractor shall repair or replace the failed segment of the wire and retest for continuity. Tracer wire exposed during testing shall have the insulation restored with 30 mil rubber splicing tape. The Contractor shall be responsible for all costs to confirm, locate and repair any breaks in the tracer wire identified in the continuity test.

2.5.6 SERVICE LINE LOCATION

Service lines will be located at alternating lot lines outside the sidewalk within two feet of the right-of-way line as shown on approved plans or in a grassed area behind the curb if located in other than a subdivision.

Reclaimed service line is to be located adjacent to sewer cleanouts.

2.5.7 BACKFILLED MATERIAL AND INSPECTION

All backfilling material will be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, stones, or other material which is considered unsuitable. When backfill material is not specified on the plans, backfilling with the excavated material may be acceptable provided that such material is suitable for backfilling. Pipe should be backfilled as soon as possible to minimize the length of open trench. Pipe joints, valves, fittings, and thrust blocks will be left uncovered until inspection by the Engineering Division has been completed.

2.5.8 VALVES AND FITTINGS

All valves and fittings will be set and joined to the pipe in the proper location as shown on the plans. Valves should be installed outside of the pavement where practical. A roadway valve box will be provided for every valve. This valve box must not transmit shock or stress to the valve. Valve will have alignment ring installed and valve box centered and plumb over the wrench nut of the valve. The box cover is to be flush with the surface of the finished pavement or grade level as specified in the plans. A 24"-square concrete pad 4" in thickness will be poured around the valve box when it is located outside of pavement. A bronze or stainless steel disc will be cast into the pad for all valves 12" or larger. Valve nomenclature to be stamped into the disc will include the valve size, type, manufacturer's initials, number of turns, and direction to open the valve. (Example: 12" G.V. U.S.P. 20 c.c.w.)

All valves will be located within two feet of the tee, see detail "Gate Valve and Fitting."

When solid sleeves or couplings are used to join/tie-in pipelines, a Spacer Piece shall be installed if there is a gap in the pipeline.

2.5.9 FIRE HYDRANTS

All fire hydrants (hydrants) will be located as shown on the plans and marked on the pavement with a blue reflector. On unpaved streets, a blue reflector will be affixed to a post and placed as close to the edge of the road as feasible to be easily visible. The hydrants will be located in such a manner as to provide complete accessibility and in a manner so that the possibility of damage from vehicles or injury to pedestrians will be minimized. All hydrants must stand plumb and the bury line of the hydrant at the finished grade. Hydrants installed in State highway rights-of-way will be placed in accordance with any F.D.O.T. requirements. Contractors shall not turn or add risers to hydrants. All hydrants will be connected to the main in the manner shown on the Standard Detail Sheet. If the installation of the hydrant requires the hydrant to be greater than 40 ft. away from the fire hydrant valve, an additional valve shall be installed. If the fire hydrant valve ends up in asphalt of a major road (not subdivision) an additional hydrant valve regardless of distance shall be installed.

Continued on next sheet...

City of Cocoa, Florida
Utilities Department
Updated July 2021

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY LB
DRN BY LB
CHK BY JWM
APPR BY JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD TECHNICAL PROVISIONS

DO NOT SCALE THIS DRAWING — DIMENSIONS AND NOTES TAKE PREFERENCE

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100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: C 14.0

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O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 11-16 DETAILS.dwg Plotted: Dec 20, 2023 - 3:18pm by gmotchett

2.5.10 RESTRAINED PIPE JOINTS

The Engineer of Record shall provide a restrained joint detail on drawings submitted to the City for approval. Restraining is to apply to all new fittings installed as part of the job, including tapping saddles.

2.5.11 THRUST BLOCKS AND COLLARS

Restrained joint systems are the preferred method. Thrust blocks may only be used with the City's prior approval at bends, fire hydrants, and as specified on the plans, in accordance with the Standard Detail Sheet. Metal harnesses, tie rods, or clamps of adequate strength to prevent movement may be installed at locations where thrust blocks are not practical. Rods and clamps will be stainless steel. A 20-foot length of ductile iron pipe will be installed at all main endings and a concrete thrust collar will be poured around the pipe at a distance of 10 feet from the end of the joint. In lieu of concrete thrust collar, restrained pipe upstream of the proposed concrete thrust collar may be used.

2.5.12 JACK AND BORE, PIPE INSTALLED IN CASINGS

Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing that has been jacked and bored. The casing pipe will be six to eight inches larger than the outside diameter of the bells on the Ductile Iron pipe. The Engineer of Record will design the casing and bore to meet FDOT or FECRR requirements.

Ductile Iron pipe of the appropriate Class will be installed in the casing. Water mains must be pushed or pulled through the casing on stainless steel casing spacers with polyethylene skids attached to the pipe with stainless steel straps. The stainless steel casing spacers with polyethylene skids will be placed in accordance with manufacturer's recommendations. Casing spacers must be manufactured by Cascade or an approved equal. Restrained joints are required on mains installed inside casings.

JACK AND BORE

J&B installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards. J&B installed under FECRR shall conform to FECRR requirements.

2.5.13 HORIZONTAL DIRECTIONAL DRILLING

Only DIP and Fusible PVC may be horizontal directional drilled (HDD) under pavement or surface waterway crossings. The HDD pipe shall only extend to 10 feet on each side of the crossing. Then the piping will change to the standard piping material.

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards.

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:

   - The directional bore contractor (preferably the Field Superintendent)
   - The permitting agency
   - Engineer of Record
   - City Engineering Division Representative
   - Inspector for the project

ENGINEER OF RECORD

1. The EOR must include a scaled drawing showing the details of the directional drill on the construction drawings (i.e. profile, depth, location of existing utilities, maximum deflection angle).

2. If during construction it is determined a directional drill is required (and was not previously approved), the EOR is required to update the construction drawings and receive approval.

HDD CONTRACTOR

1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in "Appendix B") to the Engineering Division for approval. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan")

   - The entrance and exit location
   - Profile of the bored pipe
   - Proposed deflection angle for approach and exit
   - Documentation on the allowable max. & min. deflection for the particular pipe being used
   - All utilities including their depths and clearances from reamer
   - Width of the right of way
   - Pavement width
   - Length of the bore
   - The bore plan shall be signed by the responsible person in charge of the bore.

2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:

   - Water mains 12" and greater minimum clearance is 18"
   - Water mains 10" and less minimum clearance is 12"

3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.

4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.

2. The Inspector for the project will have a copy of the bore plan at the project site.

3. Prior to the HDD the Inspector shall verify that the materials at the project site for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.

4. The Inspector shall verify the following prior to the commencement of the HDD:

   a. Verify that the HDD contractor has obtained his/her utility locates;
   b. Verify that all utilities have been visually spotted by the HDD contractor;
   c. Verify that the permitting agency has been notified of the HDD; and
   d. Witness the calibration of the sonde.

5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified.

COMPLETION OF THE BORE

1. A bore log shall be submitted to the Engineering Division after completion of the bore.

2.5.14 BLOWOFFS

Flushing blow-offs are to be installed and constructed as shown on the Standard Detail Sheet. Blow-off materials include 2" brass for nipples, brass threaded fittings, 2" brass angle wheel valve, and plastic meter box (purple for reclaimed). The plastic meter box is to be installed at grade over the wheel valve. The angle wheel valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blow-offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Standard Detail Sheet. A reclaimed tag will be installed on reclaimed main blow-offs in a reclaimed meter box.

Brass used in potable water shall meet the low lead requirements as set forth in Section 2.1.6, "Service Connections."

2.6 TIE-INS TO EXISTING SYSTEMS

2.6.1 GENERAL

The Contractor is not to operate any valve or remove any thrust block from City-owned mains except under direct supervision of an Inspector of the Engineering Division. The Contractor may need a post restraining the existing piping for the tie-in as required by the Engineering Division. All Contractors must follow the procedures listed below for connecting new mains to existing water systems.

2.6.1.1 Mains 8" and smaller

Existing tie-in valves will be operated and pressure tested to verify water tightness prior to the proposed tie-in. Existing system valves that are not water tight, shall have a new valve installed immediately adjacent (within 2') to the existing valve. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a City supplied meter and contractor supplied backflow preventer (double check) will be installed. The jumper will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The proposed tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. The Engineer of Record will be required to provide an executed FDEP certificate of completion prior to clearance. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of Engineering Division.

2.6.1.2 Mains 10" and Larger

The same procedure as noted for mains 8" and smaller will be used for mains 10" and larger except that the jumper will be utilized only for filling the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve can be opened for flushing and during chlorination only under the supervision of the Engineering Inspection Division. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of the Inspector.

2.7 TESTING

2.7.1 GENERAL

All newly installed pipe and services that have been backfilled must be tested in accordance with AWWA specification C651.

2.7.2 JUMPER METER ASSEMBLY

All filling, and flushing, must be accomplished through a jumper meter assembly. The jumper meter assembly shall consist of a meter (provided by the City, paid for by the Developer/Contractor), and a double check backflow preventer and galvanized piping (provided by the Contractor). The jumper meter assembly shall be installed by the Contractor under the direct supervision of the Engineering Division. After installation, the Contractor shall have the backflow preventer certified by a backflow technician, and a copy of the test report shall be provided to the Engineering Division.

1. A temporary jumper connection is required at ALL connections between existing active water mains and proposed new water main improvements, per the City of Cocoa Utilities Handbook. The only exception is the installation of a new fire hydrant involving a tap and using an anchoring/swivel nipple. In this case, all fittings and fire hydrant SHALL be swabbed with a 100 ppm chlorine solution prior to installation.

2. The details for filling any water main from existing active water mains and for flushing of new mains up to 8" diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size can be found in **Section 2.7.3-Flushing and Swabbing.** The jumper connection shall be maintained until after filling, flushing, testing, and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies has been received. The jumper connection shall also be used to maintain pressure in the new mains all the time after disinfection and until the FDEP clearance letter is obtained. Adequate thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per Section II of AWWA C561.

3. Flushing of 10" diameter and larger water mains may be done through the tie-in valve, under the direct supervision of the Engineering Division. The Engineering Division will be notified in writing 48 hours prior to the flushing of said mains.

   The following procedures shall be followed:

   A. The existing tie-in valves shall be operated and pressure tested in the presence of the Engineering Division or Engineer to verify water tightness prior to the proposed tie-in. Valves which are not watertight shall be replaced or a new valve installed immediately adjacent to the leaking valve.

   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.

   - Flushing shall not be attempted during peak demand hours of the existing water main.
   - All downstream valves in the new system must be open prior to opening the tie-in valve.
   - Provide for and monitor the pressure at the tie-in point, the pressure in the existing main must not drop below 35 psi.
   - Tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is always greater than 10 psi.

4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation. The test shall be performed by a qualified backflow prevention technician.

5. Except as required to flush lines of greater than 8" in diameter, the tie-in valve shall remain closed. The tie-in valve shall remain closed until the new system has been cleared for use by FDEP and all other pertinent agencies.

6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the jumper connection. The corporation stops are to be closed and plugged with 2" brass plugs.

7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device fittings, valve, etc., shall be the responsibility of the contractor.

2.7.3 FLUSHING AND SWABBING

The City will provide an adequate volume of water for the filling, flushing, and testing of mains. The Contractor will notify the Engineering Division prior to flushing or filling mains. The pressure in the City's system will be monitored during the flushing; at no time should the pressure in the City's system be allowed to drop below 35 psi. Water used during flushing will be billed to the Contractor.

The City of Cocoa Engineering Division requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be used as a guide and in no way to be construed as means and methods.

The following terminology may be used in the discussion or operation of the pigging procedure.

Pigs shall be manufactured of a 2 pounds per cubic foot density open cell polyurethane foam body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a "wye", "tee", or simply inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a "wye", "tee" or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4"; 180 gpm for 6"; 320 gpm for 8". Flow rates and jumper assemblies for mains 10" and larger will be determined by the Engineer of Record and approved by the City of Cocoa Engineering Division.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Engineering Division. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped below ground in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the pig into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of the Engineering Division to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete; if not, flushing will continue until water is clear.

2.7.4 HYDROSTATIC TEST

A blow-off or fire hydrant will be installed at the end of the pipeline under test. The line being tested will be slowly filled with water to the specified test pressure. Before applying the specified test pressure, all air will be expelled from the test section including service connections. If fire hydrants or blow-offs are not available at high elevations, taps at points of highest elevation will be made to facilitate air removal and testing. When testing is complete, the service lines installed for air removal must be removed.

The line must hold the 150-psi test pressure for a two-hour test period and must be performed under the direct supervision of the Engineering Division. Sufficient human resources are to be employed to ensure inspection. If the line fails to meet the test, it will be repaired and re-tested until the test requirements are satisfied. Line pressure will be maintained to within 5 psi of the test pressure at all times.

2.7.5 LEAKAGE TEST

A leakage test at 150 psi will be performed on all newly installed sections of pipe in accordance with AWWA C600 or C605 after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Size (in)	Allowable Leakage (gal/hour)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.06
14	1.16
16	1.32

$L = (SD\sqrt{P}) / 148{,}000$

L = testing allowance (makeup water), in gallons per hour
S = length of pipe in feet
D = nominal diameter of pipe, in inches
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge). P has the square root taken.

On small main extensions where the allowable leakage loss cannot be reasonable measured (.25 gallons or less), NO LOSS OF PRESSURE shall be allowed.

2.8 DISINFECTION AND BACTERIOLOGICAL TESTING

2.8.1 GENERAL

The Contractor must flush potable mains and arrange for complete disinfection by chlorination in coordination with the Engineering Division. Work will conform to applicable provisions of AWWA specification C651-14, "Disinfecting Water Mains". Water with a chlorine concentration of 50 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty-four hours. Transmission mains may be chlorinated using the "slug method". If the slug method is used, a detailed written procedure shall be submitted for approval. The main shall be dechlorinated to zero ppm chlorine before any flushing is performed. The method for dechlorination shall be approved by the Engineer of Record. After flushing, the water shall remain in the pipe for 24 hours before sampling. Service connections and tie-ins made before testing must be disinfected in accordance with AWWA specification C651. Samples will be taken by an Engineering Division approved laboratory. Two consecutive day samples are required for potable water mains. Water mains shall not be flushed between samples. The Contractor will be responsible for ALL bacteriological testing fees. Sample points are determined by the Engineer of Record and approved by FDEP. If samples taken do not demonstrate satisfactory results, re-chlorination and retesting of all sample locations is required at the Contractors expense.

CONTRACTORS WORKING ON EXISTING MAINS

When existing water mains are taken out of service by contractors, and water service to existing customers is interrupted causing a precautionary boil water notice (PBWN), the water main will be taken out of service on Monday or Tuesday. If for some reason the water main cannot be taken out of service on Monday or Tuesday, then the contractor at their expense shall have the laboratory perform bacteriological testing after normal working hours. This procedure is to lessen the time water customers are under a PBWN.

2.9 WET TAP CONNECTIONS TO EXISTING SYSTEM

2.9.1 GENERAL

Tap Being Performed	Parties Allowed to Perform the Tap
Taps 2" and smaller	• Approved tapping and line stop contractor • Contractor approved to tap mains solely for their own project - Contractor must perform 5 successful taps under the supervision of the inspection team and demonstrate possession of proper tapping equipment
Taps 2"-16"	• Approved tapping and line stop contractor
Taps 16" and greater	• Approved tapping and line stop contractor - Each tap requires independent review and approval - The tap must be performed under direct supervision of the engineering division
Taps on concrete transmission mains	• Contractor approved for taps on City of Cocoa transmission mains - Tapping plan must be submitted by the contractor prior to the tap

- On transmission mains, the approved tapping and line stop contractor will install the tapping saddle and valve. For all connections from 4"-12" the contractor may install tapping saddles under direct supervision of the Engineering Division.
- For all water main connections, the Contractor must obtain all required permits, provide a dry pit area, provide pit preparation including shoring and bracing, provide maintenance of traffic, provide all right-of-way restoration, and notify all utilities prior to construction. Connections must be completed under direct supervision of the Engineering Division.
- The list of approved contractors may be found on pg. 158.

Tapping saddles and valves supplied by the Contractor will be inspected by the Engineering Division prior to installation. The installed tapping saddle and valve must be tested with water at 100 psi for 15 minutes prior to tapping to ensure a watertight installation. Saddles installed on concrete pressure pipe will be tested 10% over line pressure. The pressure test will be performed by the Contractor and supervised by the Engineering Division. After the pressure test of the saddle has been completed, an Approved Tapping Contractor can tap the main.

2.9.2 TAPPING AND LINESTOP PROCEDURES

- ALL TAPS or LINESTOPS on City of Cocoa potable, reclaimed, and wastewater mains will be performed by an Approved Tapping Contractor.*
- Absolutely NO taps or linestops will be performed on Friday or any day preceding a holiday.
- Approved Contractors must disinfect tapping machine with AWWA approved disinfectant. This will be witnessed by the Inspector.
- The Contractor's tapping or linestop machines will be in good working order with appropriate bits and shell cutters for the type of pipe being worked on (i.e. shellcutter for PVC).**
- When taps or linestops are installed on Transmission Mains (> 12"), a preconstruction meeting will be held with the tapping contractor prior to ANY work being performed. The meeting may be held at the job site.
- Taps and linestops on the Utilities concrete pressure mains will be a two (2) day process and will require a pre-construction meeting. Grout submittal will need to be submitted for approval prior to work. Day one the saddle is installed and grouted, Day two tighten straps, cut pre-stressing wires, install throat and valve. Pressure test on saddle is 10% over line pressure for 30 minutes. After successfully completing pressure test, tap can be made.
- Toggle bolts will be required for PCCP taps to assure the entire coupon remains intact. The coupon must be provided to the City.
- ALL excavations must conform to current OSHA Trench Safety Act.
- The City of Cocoa reserves the right to remove any contractor from the approved list for any work considered substandard.

* Tap or linestop to include: Material, installation, labor, drilling, and testing

** Bit, boring bar, and adaptor

2.10 FINAL CLEAN-UP AND ACCEPTANCE

2.10.1 GENERAL

Upon completion of the work and before acceptance by the Engineering Division, the Contractor will meet all permit conditions, remove all debris, and complete sodding, sprigging, or seeding if required by the plans. The Contractor will leave all areas affected by operations in a neat and presentable condition.

Acceptance of completed work by the City will be contingent on the following work items completed to the satisfaction of the Engineering Division.

- Pressure Test
- Bacteriological Testing
- Restoration
- Payment of fees
- Approved As-Builts
- Easements
- Bill of Sale
- Fire line DCDA certification, as needed
- Final Inspection

2.11 FIRE SERVICE

2.11.1 GENERAL

All Fire Lines shall be installed by a licensed Fire Line Contractor in accordance with Florida Statute Chapter 633 and Rule Chapter: 69A-46. Where wet pipe sprinkler service is used, an RPDA or DCDA will be installed in accordance with the "Backflow Prevention and Cross-Connection Control" Section of the Utilities Handbook and as described in the "City of Cocoa Cross Connection Control Program Manual".

Fire line backflow preventer assemblies shall be installed in non-traffic areas. Four to six bollards may be required.

2.12 CONNECTION OF BUILDINGS OVER FOUR FLOORS

2.12.1 GENERAL

Connection of domestic water supply systems serving buildings over four floors in height to the City's water distribution system will be subject to the following requirements:

- A fixture unit analysis will be performed by the Owner's engineer to determine peak domestic flow requirements. This analysis is to be provided to the Engineering Division.
- A water meter and a reduced pressure backflow preventer, sized in accordance with the domestic flow requirements, will be installed above ground at the developer's expense.
- Upon written request, the City will provide the site engineer with the minimum expected system pressure. The site engineer will be responsible for providing this information to the architect and building owner. Means for providing an adequate supply of domestic water and fire protection to all parts of the building during periods of minimum pressure will be the responsibility of the building Architect or Engineer of Record.
- Repair costs for damage to the water meter caused by flows exceeding its rated capacity will be charged to the customer.

2.13 BACKFLOW PREVENTERS

2.13.1 GENERAL

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly per the Standard Details in "Appendix B." Backflow preventer requirements for each service type are described in the "City of Cocoa Cross Connection Control Program Manual" and are summarized in Paragraph 2.1.3, "Backflow Preventers" and "Appendix A" of this document.

2.14 RECORD DRAWINGS

2.14.1 GENERAL

Record drawings are required for all systems to be accepted by the Engineering Division. Record drawings will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

- Location of all valves, service lines, fittings, and fire hydrants using at least two ties to permanent points (manholes, curbs, or storm water inlets). An acceptable station and offset system may be used for service lines and fittings only.
- Location of mains from property easement lines or edge of pavement at intervals of 300 feet.
- Elevations to the top of the water line at intervals of 300 feet and at all drainage and sewer main crossings. Benchmark to be shown on record drawings.
- Separation between reclaimed water or force mains and water mains, if they are installed within 10 feet of water mains.
- Water main material and distance of mains from buildings or structures within 20 feet of the water main.
- Distance from hydrant to hydrant valve.
- Pertinent easement information.
- A minimum of two benchmarks with northings and eastings in NAD83 or NAVD88 that are clearly labelled on each individual sheet. The benchmarks shall be placed away from the center of the drawing in opposite corners.
- Certification by the surveyor or Engineer of Record accepting responsibility for accuracy of information supplied on the record drawings and a statement certifying that all mains are within easements and/or public right-of-way.
- Certification by the EOR certifying that the potable water and reclaimed system has been constructed in substantial conformance with approved construction plans and specifications and that all mains are within easements and/or public rights-of-way.
- The name "City of Cocoa" must appear on all record drawings survey information.
- The page number in the format "page *x* of *y*" needs to be on each page where *x* is the specific page number and *y* is the total number of pages.

Record drawings will be drawn at an engineering scale that is legible and readable as determined by City staff. Areas requiring additional detail may be enlarged as necessary. Right-of-way, easements, and lot lines will be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on DEP Form 62-555.900(9) that the system depicted on the record drawing was constructed in substantial conformance with approved plans and will function as intended. Lot, block numbers, and street names will be included. Provide two (2) sets of signed and sealed record drawings and one (1) digital file including all reference files in .DWG format (AutoCAD 2013 or higher).

NOTES:

1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

City of Cocoa, Florida
Utilities Department
Updated July 2021

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB
DSN BY	LB		
DRN BY	LB		
CHK BY	JWM		
APPR BY	JWM		

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD TECHNICAL PROVISIONS

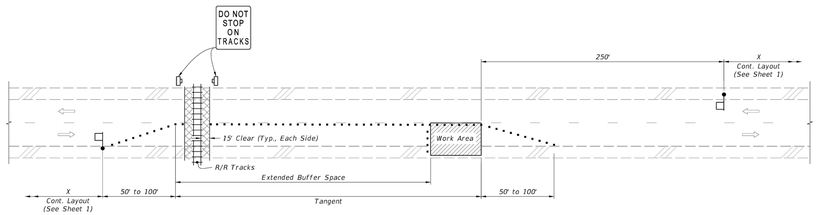
DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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Certificate of Authorization No. 2648
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Phone:321.453.0010 WWW.DRMP.COM
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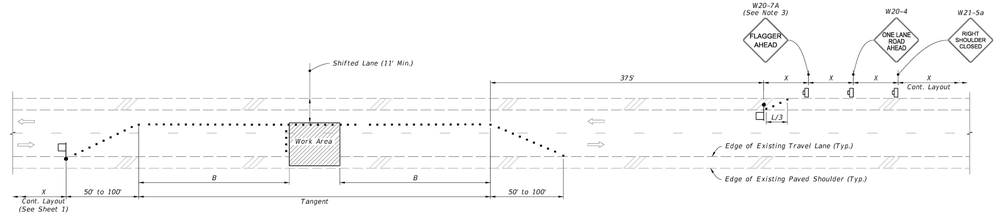
JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: **C 15.0**



TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION



TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCROACHES ON THE CENTERLINE
(For Work Operations In place 24 Hours or Less)

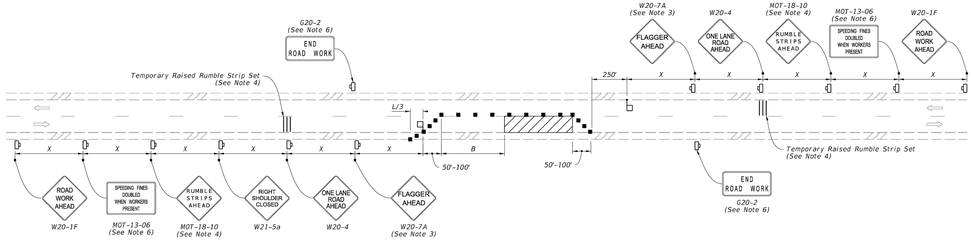
SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic

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SPECIAL CONDITIONS

LAST REVISION 11/01/21	REVISION	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX 102-603	SHEET 2 of 2



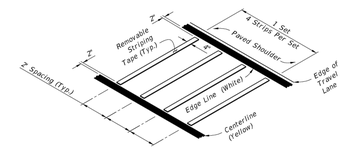
NOTES:

1. This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
2. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Spacing
   See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
3. Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
4. Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (MOT-18-10) and associated work zone sign spacing.
5. Additional one-way control may be provided by the following means:
   a. Flag-carrying vehicle
   b. Official vehicles
   c. Pilot vehicles
   d. Traffic signals

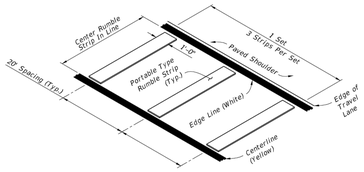
   When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
6. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work operation will be in place for 24 hours or less.
7. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
8. Railroad Crossings:
   a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
   b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic



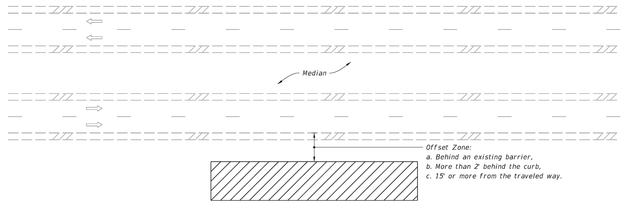
OPTION - 1
REMOVABLE STRIPING TYPE



OPTION - 2
PORTABLE TYPE

RUMBLE STRIP SETS

LAST REVISION 11/01/21	REVISION	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX 102-603	SHEET 1 of 2



MULTILANE ROADWAY SHOWN, TWO-LANE ROADWAY SIMILAR

NOTES:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work beyond the shoulder.
2. Use Index 102-602 when the work operation (excluding establishing and terminating the work area) requires that two or more work vehicles cross the Offset Zone in any one hour period.
3. Use Index 102-660 when Work Area encroaches a Sidewalk.

SYMBOLS:

- Work Area
- Lane Identification and Direction of Traffic

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LAST REVISION 11/01/20	REVISION	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	TWO-LANE AND MULTILANE ROADWAY, WORK BEYOND THE SHOULDER	INDEX 102-601	SHEET 1 of 1

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY LB
DRN BY LB
CHK BY JWM
APPR BY JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

MAINTENANCE OF TRAFFIC

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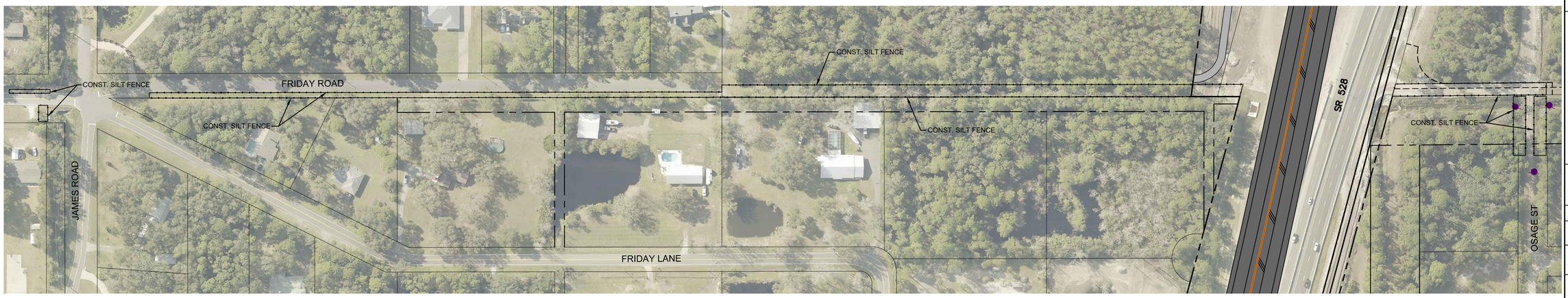
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

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PROJECT NUMBER: 21-0540.002
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SHEET: **C 16.0**

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 11-16 DETAILS.dwg Plotted: Dec 20, 2023 - 3:18pm by gmatchett



NORTH

MASTER SITE DRAINAGE AND TEMPORARY DEWATERING PLAN

1"=100'

DESCRIPTION OF STANDARD SITE CONTROLS AND BEST MANAGEMENT PRACTICES

1. Erosion and Sediment Controls.
   a. Stabilization Practices are required to be routinely implemented by the Contractor. The Contractor should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated, shall be maintained by the Contractor. Stabilization measures shall be initiated as soon as practicable, but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased.
   b. The Contractor is responsible for any required structural practices necessary to divert flows from exposed soils, store flows, retain sediment on-site, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural BMPs shall be placed on upland soils unless a State of Florida wetland resource management permit or environmental resource permit issued pursuant to Chapter 373, FS, and applicable regulations of the FDEP or WMD authorize otherwise. The installation of these devices may be subject to Section 404 of the CWA.
   c. For common drainage locations that serve an area with more than 10 disturbed acres at one time, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent control measures, shall be provided where attainable until final stabilization of the site. The 3,600 cubic feet of storage area per acre drained does not apply to flows from offsite areas and flows from onsite areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. For drainage locations which serve more than 10 disturbed acres at one time and where a temporary sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, or equivalent sediment controls, are required for all sideslope and downslope boundaries of the construction area.
   d. For drainage locations serving less than 10 acres, sediment basins and/or sediment traps are recommended but not required. At a minimum, silt fences or equivalent sediment controls are required for all sideslope and downslope boundaries of the construction area.
2. Stormwater Management. The Contractor is responsible for the installation of BMP's during the construction process to control pollutants in stormwater discharges that will occur during construction and after construction operations have been completed. These controls shall be consistent with the performance standards for stormwater treatment as set forth in the Section 62– 40.432, F. A. C., the applicable stormwater or environmental resource permitting regulations of the FDEP or the appropriate WMD, and the guidelines contained in the Erosion and Sediment Control Manual (last update: July 2013), and any subsequent amendments. Structural BMPs shall be placed on upland soils unless a State of Florida wetland resource management permit or environmental resource permit issued pursuant to Chapter 373, FS, and applicable regulations of the FDEP or WMD authorize otherwise. The installation of these devices may be subject to Section 404 of the CWA. The FDEP generic permit only addresses the installation of stormwater management controls, and not the ultimate operation and maintenance of such controls after the construction activities have been completed and the site has undergone final stabilization. Under the FDEP generic permit, permittees are only responsible for the installation and maintenance of stormwater management BMPs prior to final stabilization of the site, and are not responsible for maintenance after stormwater discharges associated with industrial activity have been eliminated from the site. However, all stormwater management systems and BMPs shall be operated and maintained in perpetuity after final stabilization in accordance with requirements set forth in the State of Florida stormwater or environmental resource permit issued for the site.
   a. Such controls or best management practices may include: stormwater detention systems (including wet ponds); stormwater retention systems; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems which combine several practices (BMP treatment train). This project has been designed to attenuate post-development discharge from the site to pre-development levels (or below), in accordance with the applicable SJRWMD and local agency stormwater permits.
   b. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel for the purpose of providing a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. no significant changes in the hydrological regime of the receiving water).
   c. Temporary stormwater discharge measures during construction will include turbidity barriers at all wet outfall locations (see detail hereon).
3. Controls for Other Potential Pollutants.
   a. Waste Disposal. No solid materials, including building materials, shall be discharged to surface waters, except as authorized by a Section 404 permit and by a State of Florida wetland resource management permit or environmental resource permit issued pursuant to Chapter 373, F.S., and the applicable regulations of the FDEP or WMD.
   b. Off-site vehicle tracking of sediments and the generation of dust shall be minimized.
   c. The Contractor shall ensure compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
   d. The Contractor shall utilize a landscape professional to address proper application rates and methods for the use of any fertilizers and pesticides at the construction site, and set forth how these procedures will be implemented and enforced. Nutrients will be applied only at rates necessary to establish and maintain vegetation such that discharges will not cause or contribute to violations of State surface or ground water quality standards.
   e. The application, generation, or mitigation of toxic substances is limited to the minimum required for equipment operation and/or materials installation, and all toxic materials must be properly stored and disposed.
4. Approved State or Local Plans.
   a. The Contractor is also responsible for implementing procedures and requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by State, regional, or local officials. The Contractor must maintain a copy of all applicable permits at the site, and must be fully familiar with the requirements and conditions of each permit.
   b. The Stormwater Pollution Prevention Plans shall be amended to reflect any changes applicable to protecting surface water resources in sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by State, regional, or local officials for which the permittee receives written notice. Where the permittee receives such written notice of a change, the permittee shall provide a re-certification in the stormwater pollution prevention plan that the stormwater pollution prevention plan has been modified to address such changes.
   c. Dischargers seeking alternative permit requirements shall submit an individual permit application in accordance with Rule 62-620, F.A.C. to the local Department office, along with a description of why requirements in approved State, regional, or local plans or permits, or changes to such plans or permits should not be applicable as a condition of the individual permit.
5. Maintenance. The Contractor is responsible for routine maintenance of all best management practices and sediment controls, so that they will remain in good and effective operating condition, throughout the construction process.
6. Inspections. Qualified personnel (provided by the discharger) shall inspect all points of discharge into surface waters or to a municipal separate storm sewer system and all disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural controls, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.50 inches or greater. Where sites have been finally stabilized; such inspection shall be conducted at least once every month.
   a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the stormwater system. The stormwater management system and erosion and sediment control measures identified in the plans shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion and sediment control and stormwater treatment measures are effective in meeting the performance standards set forth in Section 62–40.432, F.A.C. and the applicable stormwater or environmental resource permitting regulations of the FDEP or appropriate WMD. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
   b. Based on the results of the inspection, all maintenance operations needed to assure proper operation of all controls, BMPs, practices, or measures identified in the stormwater pollution prevention plan shall be done in a timely manner, but in no case later than 7 calendar days following the inspection. If needed, the pollution prevention controls, BMPs, and measures identified in the plan shall be revised as appropriate, but in no case later than 7 calendar days following the inspection. Such modifications shall provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.
   c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the stormwater pollution prevention plan, and actions taken in accordance with paragraph V.D.4b of the permit shall be made and retained as part of the stormwater pollution prevention plan for at least three years from the date that the site is finally stabilized. Such reports shall identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the facility is in compliance with the stormwater pollution prevention plan and this permit. The report shall be signed in accordance with Part VII.C of this permit.
7. Non-Stormwater Discharges – Except for flows from fire fighting activities, sources of non-stormwater listed in the FDEP Generic permit that are combined with stormwater discharges associated with construction activity must be identified in the plan. Non-stormwater discharges from the site are prohibited unless specifically identified and permitted otherwise.
8. See also selected details on next sheet.
9. The contractor shall submit completed NPDES Notice of Intent (NOI) and Notice of Termination (NOT) forms to FDEP, with copies provided to the City.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME DATE

SEQUENCE OF CONSTRUCTION

A. Clearing and Grubbing

1. Controls for each portion of the site will be installed after the clearing and grubbing necessary for installation of the applicable control measure, but before the clearing and grubbing for the remaining portion of the site. Perimeter controls (such as silt fences) will be actively maintained until final stabilization of those portions of the site upward of the perimeter control.
2. Clearing and grubbing activities will generally proceed from the interior portions of the site, outward to the boundary lines, except for installation of perimeter controls (silt fences). This is to minimize dust and impacts to adjacent properties. When feasible, leave a 50 foot to 100 foot buffer of natural vegetation along the perimeter property lines, while completing work on interior portions of the site, and until such time as these perimeter areas are ready to be final graded and stabilized.

B. Excavation and Temporary Construction Dewatering

1. All excavation activities will be completed in accordance with the approved grading plans for the project. Construction stakeout by a qualified surveyor must be provided by the Contractor.
2. Retention lake excavation and/or site filling can not be completed until all perimeter controls are in place, such that erosion and/or siltation can not occur outside of the project boundaries.
3. Temporary construction dewatering activities will be accomplished in accordance with St. Johns River Water Management District (SJRWMD) regulations and the applicable permits. The Contractor is responsible for obtaining any required temporary dewatering permits.
4. Perimeter rim ditches and/or berming will accomplished where feasible to protect against off-site erosion.
5. Excavated and/or filled areas are to be stabilized via seed and mulch, sodding, or other means, as soon as practical.

C. Drainage System Installation/Utilities Construction

1. This phase of the work would include any required sewer installation and temporary dewatering as well as any required drainage pipe and inlet installation, waterline installation, reuse line installation, etc. All work to be performed by a licensed utility contractor.
2. As soon as practical, synthetic bales, silt fences, inlet protection, and other best management practices (as shown on this plan) are to be installed at all required locations.
3. All conditions and requirements of the applicable utilities installation permits will be the responsibility of the contractor. A copy of all permits must be maintained on-site. Contractor is responsible for confirming all required inspections during the utilities installation process.
4. Contractor is responsible for maintaining perimeter controls and temporary site stabilization measures during the course of the utilities construction process.
5. Ordering of applicable testing per the permit requirements is the responsibility of the Contractor.

D. Roadway and Sidewalk Construction

1. This phase of the work includes all required hard surfacing for the project. Care is to be taken during this phase in order to minimize or eliminate any off-site discharge or spillage of concrete, asphalt, or other roadway materials. Concrete trucks and asphalt equipment are to be cleaned on-site in an approved and contained location. Ordering of applicable testing per the permit requirements is the responsibility of the Contractor.
2. Immediately upon completion of all roadways and hard surfaces for the project, adjacent disturbed areas shall be sodded or otherwise stabilized to prevent erosion. At least one strip of sod is required along the back of curb for all subdivision streets and new roadways.

SITE DESCRIPTION/GENERAL STATEMENT

This proposed project involves construction and development of the site improvements shown on these plans. Construction activities will generally include clearing and grubbing, excavation, filling, earthwork, utilities installation, stormwater management system installation, roadway and/or parking area construction, and final grading, stabilization and/or landscaping. Potential pollution sources include soils erosion and siltation, temporary dewatering, and discharges from construction equipment; i.e. oil, etc. Contractor is required to incorporate the site controls and BMPs described herein to minimize or eliminate the potential for off-site discharge of pollutants. Contractor is also required to sign a certification statement verifying compliance with the requirements of the FDEP Generic Permit for Stormwater Discharge from Construction Activities, prior to commencement of work.

SITE DATA

Total site area = 1.83 acres±
Total site area to be disturbed = 1.83 acres±

STORMWATER TEAM

: Weekly and/or 1/2 inch rain event inspections;
BMEG by Shanda Ryer, NPDES Inspector #24543

: Daily Site Monitoring;
(name of company) by (name of person), Superintendent

: Routine Maintenance & Repair;
(name of company) by (name of person), Project Manager

PUT PDF OF CONTRACTOR STATEMENT HERE

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY LB
DRN BY LB
CHK BY JWM
APPR BY JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

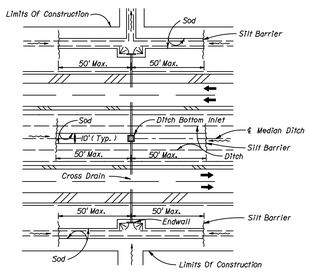
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

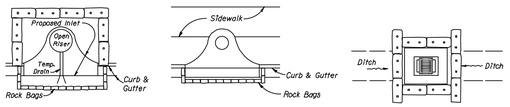
Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: November 01, 2021
SHEET: **C 17.0**

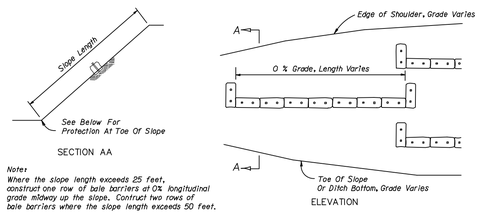
O:\merritt_island\Dwg\eng 4000-4999\4112401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 17-19 SWPPP.dwg Plotted: Dec 20, 2023 - 3:18pm by gmatchett



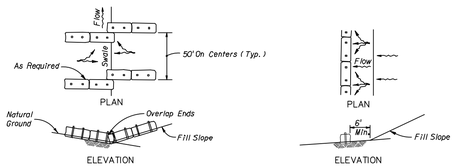
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

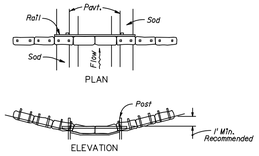


ALONG FILL SLOPE

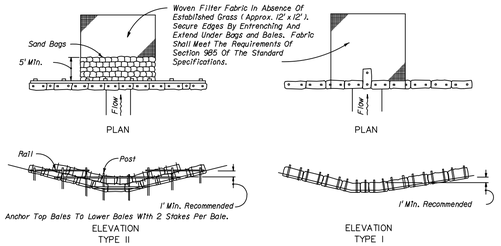


AT TOE OF SLOPE

BARRIERS FOR FILL SLOPES



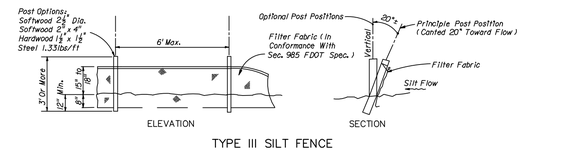
SYNTHETIC BALES OR BALE TYPE BARRIERS FOR PAVED DITCHES



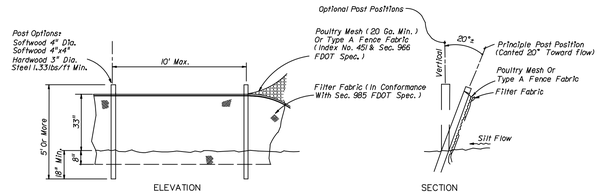
SYNTHETIC BALES OR BALE TYPE BARRIERS FOR UNPAVED DITCHES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

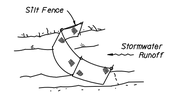
1. Type I and Synthetic Barrier should be spaced in accordance with Chart 1, Sheet 1.
2. Bales shall be anchored with 2 - 1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if appoved by the engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, L.F. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sand bags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.



TYPE III SILT FENCE



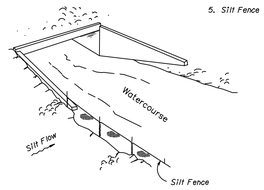
TYPE IV SILT FENCE

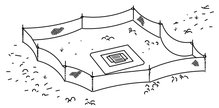


Silt fence protection in ditches with intermittent flow

NOTES FOR SILT FENCES

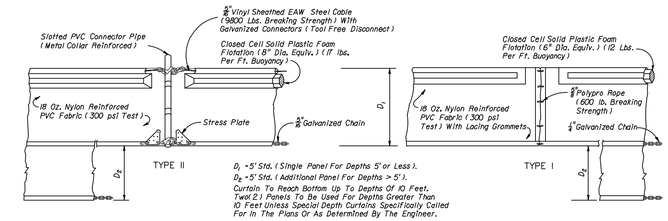
1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt Fence shall be in accordance with Chart 1, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detailed water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).





Silt fence protection around ditch bottom inlets

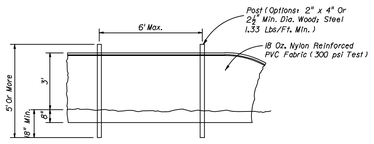
SILT FENCE APPLICATIONS



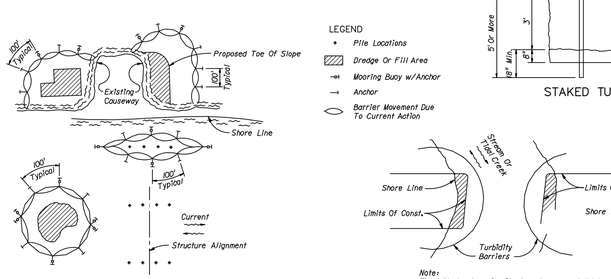
D_1 - 5' Std. (Single Panel For Depths 5' or Less).
D_2 - 5' Std. (Additional Panel For Depths > 5').
Curtain To Reach Bottom Up To Depths Of 10 Feet. Twol 2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS



STAKED TURBIDITY BARRIER

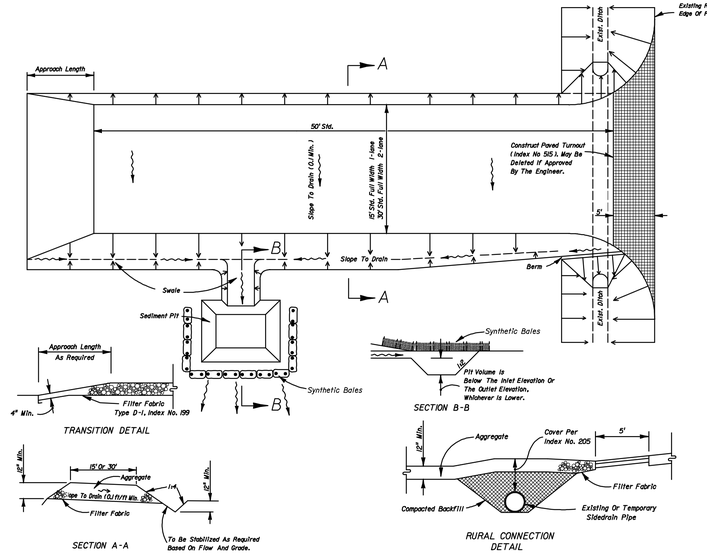


NOTES FOR TURBIDITY BARRIERS

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.

Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item (s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS



GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where offsite tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize offsite tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size "1". If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   15' x 50' = 100 ft³ 30' x 50' = 200 ft³
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, hay bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.2% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent offsite tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD, including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic bale or bale type shall be paid for under the contract unit price Synthetic Bales, L.F. Silt fence shall be paid for under the contract unit price For Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and exiting vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

SOIL TRACKING PREVENTION DEVICE TYPE A

NOTE
Contractor to provide erosion and sediment control in conformance with the "Erosion and Sediment Control Designer and Reviewer Manual" by FDOT/FDEP (July 2013).

NOTE
Contractor is responsible for obtaining the FDEP-NPDES Notice of Intent for the Temporary Construction Discharge Permit, including preparation of the SWPP Plan, and for conducting all required inspections and completing all reports associated with this construction permit.

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY: LB
DRN BY: LB
CHK BY: JWM
APPR BY: JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: **C 18.0**

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 17-19 SWPPP.dwg Plotted: Dec 20, 2023 - 3:18pm by gmatchett

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

GENERAL

1. ALL CONSTRUCTION SHALL CONFORM TO FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION (LATEST EDITION), BREVARD COUNTY UTILITY SERVICES CRITERIA FOR WATER AND SANITARY SEWER SYSTEMS, AND BREVARD COUNTY CODE OF ORDINANCES.

2. ISSUANCE OF CERTIFICATE OF COMPLETION: UPON COMPLETION OF CONSTRUCTION OF THE PROJECT AND PRIOR TO SCHEDULING OF THE FINAL INSPECTION, THE APPLICANT OR THEIR AUTHORIZED REPRESENTATIVE, SHALL PROVIDE THE FOLLOWING DOCUMENTATION TO BREVARD COUNTY PUBLIC WORKS ENGINEERING:

   a. A CERTIFICATE OF COMPLETION - REQUEST FOR FINAL INSPECTION FORM. THE FORM MUST BE FROM A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA WITH THEIR SEAL AFFIXED. THE FORM CERTIFIES THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS.

   b. A COMPLETE SET OF TESTING REPORTS FOR ALL TESTS PERFORMED ON THE PROJECT WITHIN THE COUNTY RIGHT-OF-WAY AND/OR FOR ALL SUBDIVISION CONSTRUCTION REGARDLESS OF PUBLIC OR PRIVATE.

   c. THREE SETS OF AS-BUILT DRAWINGS MEETING THE REQUIREMENTS OF SECTION 61G17, F.A.C., AND SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA. AT A MINIMUM, ALL AS-BUILT DRAWINGS MUST INCLUDE:

      i. ROAD/PAVEMENT ELEVATIONS; ROADWAY CROSS SLOPES; PAVEMENT WIDTH; PAVEMENT SPOT ELEVATIONS NECESSARY TO CONFIRM STORMWATER DRAINAGE PATTERNS AT INTERSECTIONS AND SIDEWALKS; CURB SLOPES;

      ii. STORMWATER PIPE SIZES AND INVERT ELEVATIONS; LOCATION OF OUTFALL STRUCTURE(S) WITH AS-BUILT ELEVATIONS FOR ALL CONTROL STRUCTURE & SKIMMER ELEVATIONS SHOWN ON THE APPROVED PLANS TOP OF BANK, GRADE BREAKS, BOTTOM ELEVATIONS FOR ALL STORMWATER PONDS OR BERM AREAS;

      iii. ANY OTHER ADDITIONAL AS-BUILT DATA THAT IS APPLICABLE TO THE PROJECT TO ENSURE COMPLETION IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.

   d. PIPE INSPECTION VIDEO PER FDOT REQUIREMENTS. (IF APPLICABLE PER NOTE 4 OF DRAINAGE NOTES).

   e. IF A MUNICIPALITY IS ACCEPTING A PUBLIC WATER AND/OR SEWER SYSTEM, THERE MUST BE DOCUMENTATION INDICATING MUNICIPAL ACCEPTANCE OF THE CONSTRUCTION OF THE WATER AND/OR SEWER SYSTEM.

   f. PUBLIC WORKS ENGINEERING WILL NOT SIGN OFF ON A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) FROM THE BREVARD COUNTY BUILDING DEPARTMENT UNTIL THE AS-BUILT DRAWINGS AND OTHER DOCUMENTATION LISTED ABOVE HAVE BEEN SUBMITTED AND REVIEWED BY PUBLIC WORKS ENGINEERING.

   g. PROJECTS CONNECTED TO THE BREVARD COUNTY WATER, SANITARY SEWER, AND/OR RECLAIMED WATER SYSTEMS MUST OBTAIN FINAL APPROVAL FOR THE PROJECT DIRECTLY FROM BREVARD COUNTY UTILITY SERVICES AS OUTLINED IN THE BREVARD COUNTY CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS.

3. UPON APPROVAL OF FINAL INSPECTION, AN ENGINEER'S CERTIFIED COST ESTIMATE WILL BE REQUIRED ALONG WITH A 2-YEAR MAINTENANCE BOND FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY AS REQUIRED BY CHAPTER 86 OF THE BREVARD COUNTY CODE OF ORDINANCES. THE MAINTENANCE BOND SHALL BE 25% OF THE ENGINEER'S CERTIFIED COST ESTIMATE.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO THE COUNTY INFRASTRUCTURE DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE STRUCTURAL INTEGRITY OF THE ROADWAY ASPHALT, BASE, AND STABILIZED SUB-BASE, SIDEWALKS, STORMWATER DRAINAGE SYSTEM, DRAINAGE STRUCTURES, CURBS, GROUND COVER, WATER SYSTEMS, SANITARY SEWER SYSTEMS, AND RECLAIMED WATER SYSTEMS. ALL REPAIRS SHALL BE COMPLETED IN ACCORDANCE WITH FDOT AND BREVARD COUNTY STANDARDS. ALL REPAIRS SHALL BE COMPLETED PRIOR TO THE FINAL INSPECTION OF THE PROJECT. SIDEWALK PATCHING WILL NOT BE ACCEPTABLE.

5. A VISUAL OR MECHANICAL INTERIOR INSPECTION OF EXISTING CULVERTS WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION.

6. ALL DISTURBED AREAS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE SODDED. SEED & MULCH IS NOT ACCEPTABLE. SOD SHALL MATCH EXISTING SOD TYPE. BAHIA SOD SHALL BE USED IN AREAS ADJACENT TO VACANT PROPERTY. DISTURBED AREAS OUTSIDE THE CONSTRUCTION LIMITS WILL BE SODDED AT THE CONTRACTOR'S EXPENSE.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTATION. ANY SURVEY MONUMENTATION DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A FLORIDA LICENSED SURVEYOR PRIOR TO ISSUANCE OF A CERTIFICATE OF COMPLETION FOR THE PROJECT.

8. REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE SHALL BE NO UTILITY CONNECTIONS OR METER BOXES WITHIN PROPOSED OR EXISTING SIDEWALKS OR DRIVEWAY AREAS.

9. ALL DIRECTIONAL BORES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 555, DIRECTIONAL BORES AND THE FDOT UTILITIES ACCOMMODATION MANUAL.

10. ALL DIRECTIONAL BORES MUST EXTEND A MINIMUM OF EIGHT (8) FEET PAST THE EDGE OF PAVEMENT OF ANY ROADWAY OR COMMERCIAL DRIVEWAY. FOR RESIDENTIAL DRIVEWAYS AND SIDEWALKS, THE BORE MUST EXTEND THREE (3) FEET PAST THE EDGE ON EITHER SIDE.

11. THE CONTRACTOR SHALL CONTROL DUST GENERATED BY THIS PROJECT AT ALL TIMES, SHALL PROVIDE STREET SWEEPING AS REQUIRED, AND PREVENT SEDIMENT FROM ENTERING INTO THE EXISTING DRAINAGE SYSTEM AT ALL TIMES.

12. THE CONTRACTOR SHALL NOT EXCEED NOISE LEVELS AS SPECIFIED IN BREVARD COUNTY CODE OF ORDINANCES SECTION 62-2271.

13. ALL STRIPING AND PAVEMENT MARKINGS IN THE COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND SHALL NOT BE APPLIED UNTIL A MINIMUM OF 30 DAYS AFTER THE PLACEMENT OF THE FINAL ASPHALT SURFACE. IN THE INTERIM, STRIPING SHALL BE PAINT AND ANY REQUIRED RPM'S INSTALLED PER THE PLANS. DO NOT STRIPE ACROSS MANHOLE LIDS OR DRAINAGE GRATES.

14. REFLECTIVE PAVEMENT MARKINGS (RPM'S) SHALL BE INSTALLED IN ALL LOCATIONS AS REQUIRED BY FDOT DESIGN STANDARD (LATEST EDITION).

15. ANY PAVEMENT MARKINGS AND RPM'S THAT ARE DESTROYED, DAMAGED, OR DIMINISHED BY CONSTRUCTION ACTIVITIES FOR UP TO 500 FEET IN EITHER DIRECTION BEYOND THE LIMITS OF CONSTRUCTION SHALL BE REPLACED OR REFURBISHED BY THE CONTRACTOR.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE COUNTY RIGHT-OF-WAY FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, THE CONTRACTOR SHALL MOW THE RIGHT-OF-WAY ON AN AS NEEDED BASIS AND MAINTAIN THE DRAINAGE CONVEYANCE SYSTEM. ADDITIONAL MAINTENANCE MAY BE REQUIRED ON A CASE BY CASE BASIS.

TRAFFIC CONTROL

1. MOT PLAN REVIEW: A PROJECT-SPECIFIC MAINTENANCE OF TRAFFIC (MOT) PLAN OR ROADWAY CLOSURE MOT/DETOUR PLAN MUST BE SUBMITTED TO BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) FOR APPROVAL A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. THE MOT PLAN SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARD INDEX 600 SERIES,(LATEST EDITIONS). PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS OR VMS) MAY BE REQUIRED TO SUPPLEMENT THE STANDARD MOT SIGNAGE.

2. ROAD CLOSURES: THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY, FOR EACH PHASE OF CONSTRUCTION, IF APPLICABLE. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. CERTAIN LOCATIONS MAY REQUIRE WORK IN THE RIGHT-OF-WAY TO BE PERFORMED AT NIGHT ONLY.

3. LANE CLOSURES: THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF ONE (1) WEEK IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. NO LANE CLOSURES WILL BE PERMITTED DURING PEAK HOUR TRAFFIC VOLUMES.

4. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MUTCD FOR STREETS AND HIGHWAYS, FDOT STANDARDS (LATEST EDITIONS), AND BREVARD COUNTY LAND DEVELOPMENT EXHIBIT #26.

DRAINAGE - ROADWAYS

1. ALL DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS AND FDOT DESIGN STANDARDS, (LATEST EDITIONS).

2. ALL RETICULINE STEEL GRATES SHALL BE HOT DIPPED GALVANIZED AND HAVE A TRAFFIC BEARING H-20 LOAD RATING.

3. ALL GRATES UTILIZED WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE TRAFFIC BEARING H-20 LOADING.

4. ALL STORMWATER PIPING WITHIN THE ROAD RIGHT-OF-WAY, REGARDLESS OF PUBLIC OR PRIVATE, OR STORMWATER PIPING THAT CONVEYS STORMWATER UNDER THE ROADWAY BETWEEN STORMWATER TREATMENT PONDS, SHALL BE INSPECTED PER SECTIONS 430-4.8, 430-4.8.1, AND 430-4.8.2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION). A COPY OF THE PIPE VIDEO SHALL BE PROVIDED TO THE COUNTY AS PART OF THE SUBMITTAL OF THE CERTIFICATION OF COMPLETION REQUEST FOR FINAL INSPECTION. THE COUNTY SHALL BE NOTIFIED ONE WEEK PRIOR TO THE START OF THE PIPE VIDEO INSPECTION PROCESS.

5. ALL OPEN CUTS SHALL CONFORM TO LAND DEVELOPMENT EXHIBIT #25. FOR ALL OPEN CUTS, THE FLOWABLE FILL AND TEMPORARY ASPHALT SHALL BE INSTALLED WITHIN TWO (2) DAYS OF THE EXCAVATION (UNLESS OTHERWISE APPROVED IN WRITING BY BREVARD COUNTY PUBLIC WORKS ENGINEERING). PERMANENT ASPHALT INCLUDING MILLING AND RESURFACING, IF NEEDED, SHALL BE COMPLETED WITHIN THIRTY (30) DAYS OF EXCAVATION.

6. THE CONTRACTOR SHALL REMOVE THE SHOULDER OF THE ROADWAY TO A POINT WHERE THE BASE MATERIAL OF THE EXISTING ROADWAY MEETS THE MINIMUM THICKNESS OF THE PROPOSED ROADWAY/COMMERCIAL DRIVEWAY CONNECTION.

CONCRETE PAVING AND SIDEWALK

1. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER FDOT INDEX 515 AND/OR BREVARD COUNTY STANDARD EXHIBITS UNLESS OTHERWISE NOTED.

2. ALL CONCRETE SHALL MEET FDOT DESIGN MIX AND SPECIFICATIONS. CURING METHOD SHALL BE IN ACCORDANCE WITH THE FDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION).

3. ALL SIDEWALKS WITHIN THE COUNTY RIGHT-OF-WAY OR WITHIN A PUBLIC SIDEWALK EASEMENT SHALL BE CONSTRUCTED OF 6-INCH THICK, 3000-PSI CONCRETE WITH FIBER MESH REINFORCEMENT. CONCRETE SIDEWALKS (OR PEDWAYS) AND CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED OVER SOILS COMPACTED TO 98% DENSITY, OF AASHTO T -180. SHOULD EXISTING SOILS BE FOUND UNSUITABLE FOR COMPACTION, ADDITIONAL COMPATIBLE MATERIALS SHALL BE BROUGHT TO THE SITE FOR USE AS SUBGRADE. ALTERNATE METHODS OF COMPACTION MAY BE REQUIRED TO AVOID DAMAGE TO SURROUNDING PROPERTIES.

4. CONSTRUCT SIDEWALK JOINTS PURSUANT TO FDOT INDEX 310 (LATEST EDITION). EXPANSION JOINTS SHALL BE EVERY 50 FEET, AND BETWEEN NEW AND OLD CONCRETE.

5. TWO BY FOUR FORM BOARDS SHALL NOT BE USED FOR SIDEWALK/DRIVEWAY CONSTRUCTION. FORM BOARDS SHALL MATCH PROPOSED CONCRETE THICKNESS. SLIP FORMS SHALL NOT BE USED FOR SIDEWALK CONSTRUCTION. FIXED FORMWORK SHALL BE REQUIRED PER FDOT INDEX 300.

6. THE CONTRACTOR SHALL PROVIDE A 3-FOOT CURB TRANSITION AT ALL CURB TERMINATIONS.

7. ALL SIDEWALK AND ACCESS RAMP CONSTRUCTION SHALL COMPLY WITH THE DEPARTMENT OF JUSTICE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, FDOT DESIGN STANDARDS (LATEST EDITION), AND BREVARD COUNTY DEVELOPMENT REQUIREMENTS.

ASPHALT PAVING AND TESTING

THE FOLLOWING TESTING REQUIREMENTS APPLY TO:

   a. ALL PUBLIC AND PRIVATE SUBDIVISION PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT;

   b. ALL SITE PLAN PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT REQUIRING WORK IN THE COUNTY RIGHT-OF-WAY;

   C. ALL PROJECTS PERMITTED THROUGH BREVARD COUNTY PUBLIC WORKS FOR WORK WITHIN THE COUNTY RIGHT-OF-WAY.

SECTIONS WITHIN THE FDOT STANDARD SPECIFICATIONS LIMITING TESTING REQUIREMENTS BASED ON LOT SIZE, SUB-LOT SIZE, TONNAGE, MINIMUM THICKNESS, OR SPREAD RATE WILL NOT APPLY TO THE PROJECTS LISTED ABOVE. AT A MINIMUM, ONE SET OF TESTS WILL BE REQUIRED FOR ALL PAVING PROJECTS LARGER THAN 50 TONS TOTAL AND ADDITIONAL TESTING MAY BE REQUIRED ON A CASE BY CASE EVALUATION OF THE PROJECT. TESTING REQUIREMENTS AT THE ASPHALT PLANT WILL NOT APPLY.

FOR S-TYPE ASPHALT AS SPECIFIED IN THE 2000-2004 FDOT STANDARD SPECIFICATION:

1. THE CONTRACTOR SHALL PROVIDE A DESIGN MIX SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 331-4 (2000). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE EXTRACTION/GRADATION TESTS IN ACCORDANCE WITH SECTION 331-4.4.2 (2000).
3. THE CONTRACTOR SHALL PROVIDE MARSHALL STABILITY TESTING IN ACCORDANCE WITH SECTION 331-5.5.1 (2000).
4. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-13 (2000).
5. THE CONTRACTOR SHALL PROVIDE SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-13.3 (2000).
6. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS PER SECTION 330-2.2 ROADWAY, (2004) AND DENSITY PER SECTION 330-11, TABLE 330-3 (2000).
7. ASPHALT TEST RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.

FOR SUPERPAVE (SP) ASPHALT AS SPECIFIED IN THE 2017 FDOT STANDARD SPECIFICATION:

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 334-2 & 334-3 (2017). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 334-5 (2017) HOWEVER, THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 334-3, 334-4, 334-5, AND 334-5.2.3 (2017).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2017) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2017).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2017).

FOR FRICTION COURSE FC-5 AS SPECIFIED IN THE 2017 FDOT STANDARD SPECIFICATION:

1. THE CONTRACTOR SHALL PROVIDE PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2017). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2017). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2017).
4. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS TESTING USING SECTION 334-5.2.3 (2017).
5. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-12 (2017).

FOR FRICTION COURSES FC-9.5 & FC-12.5 AS SPECIFIED IN THE 2017 FDOT STANDARD SPECIFICATIONS:

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2017). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2017). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT, AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 337-1, 337-3, 337-4, 337-6, 337-8, AND 334-5.2.3 (2017).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2017) WILL NOT ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2017).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2017).

CONCRETE BOX CULVERT NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND BREVARD COUNTY STANDARDS.
2. PRIOR TO START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STRUCTURAL ENGINEERING DRAWINGS (SIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED & REGISTERED IN THE STATE OF FLORIDA) FOR ALL COMPONENTS OF THE CONCRETE BOX CULVERTS, INCLUDING WINGWALLS, TOE SLAB & CUTOFF WALLS, AND HEADWALLS. THE DRAWINGS SHALL INCLUDE QUANTITIES TABULATIONS FOR CLASS IV CONCRETE (CUBIC YARDS), AND REINFORCING STEEL (POUNDS). THE DESIGN MUST BE BASED ON FDOT'S LOAD & RESISTANCE FACTOR DESIGN (LRFD) PROGRAM . SEPARATE DRAWINGS ARE REQUIRED FOR ALL WINGWALLS, TOE SLABS & CUTOFF WALLS, AND HEADWALLS, WHICH MUST BE CAST-IN-PLACE PER FDOT SPECIFICATIONS.
3. ALL BOX CULVERT MATERIALS THAT ARE TO BE INSTALLED UNDER ROADWAYS AND/OR DRIVEWAYS ARE TO BE DELIVERED TO SITE (AND PASS INITIAL INSPECTIONS) PRIOR TO START OF DEMOLITION OF EXISTING SYSTEM.
4. CONCRETE (PRECAST OR CAST-IN-PLACE) REQUIREMENTS: CLASS IV (5500 PSI).
5. REINFORCING STEEL REQUIREMENTS: ASTM A615 GRADE 60 DEFORMED BAR UNLESS OTHERWISE NOTED, WITH A MINIMUM CLEARANCE OF 3" (THREE INCHES), UNLESS OTHERWISE SHOWN. EQUAL AREA SUBSTITUTION OF WELDED WIRE (WWR) REINFORCEMENT IS PERMITTED.
6. REFER TO FDOT INDEX 292 FOR PRECAST CONCRETE BOX CULVERT SLAB & WALL THICKNESSES, REINFORCEMENT AREAS, GENERAL NOTES (SHEET 2 OF 14), AND WELDED WIRE REINFORCEMENT BENDING DIAGRAMS (SHEET 14 OF 14).
7. REFER TO FDOT INDEX 289 FOR CONCRETE BOX CULVERT DETAILS RELATED TO LRFD.
8. REFER TO FDOT INDEX 291 FOR SUPPLEMENTAL DETAILS FOR PRECAST CONCRETE BOX CULVERTS.
9. IF REQUIRED, BY-PASS PUMPING AND/OR PIPING SHALL BE APPROVED BY BREVARD COUNTY PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION.

PROJECT NAME.DWG	DATE:	REVISION:	BY:
DESIGNED/DRAWN BY: JB	1.	FOR DISTRIBUTION 10-10-12	
CHECKED BY: RBS	2.		
	3.		
	4.		

PREPARED BY: PUBLIC WORKS DEPARTMENT
ENGINEERING PROGRAM
BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS
2725 JUDGE FRAN JAMIESON WAY, RM. 204, BLDG. A, VIERA, FL 32940
Ph. (321) 637-5437, Fx. (321) 633-2083

DATE: OCTOBER 2012

APPROVED BY:
RICHARD B. SZPYRKA, P.E.
ENGINEERING PROGRAM MANAGER

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

SHEET 1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY
5	12/20/23	COCOA UTILITIES DEPT. COMMENTS	GM
4	02/22/23	COCOA UTILITIES DEPT. COMMENTS	GM
3	02/01/23	COCOA UTILITIES DEPT. COMMENTS	GM
2	07/15/22	BREVARD COUNTY COMMENTS	LB
1	05/25/22	COCOA UTILITIES DEPT. COMMENTS	LB

DSN BY: LB
DRN BY: LB
CHK BY: JWM
APPR BY: JWM

CONSTRUCTION PLANS FOR
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: November 01, 2021
SHEET: C 19.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 friday road utilities plan\402208 17-19 SWPPP.dwg Plotted: Dec 20, 2023 - 3:18pm by gmatchett

CITY OF COCOA

QUOTE TABULATION SHEET

QUOTE DUE DATE: February 7, 2024 3:00 P.M.

Friday Road Utilities Improvement Project

VENDOR	00300 Quote Form TOTAL QUOTE	Quote Form Attached	00330 Listing of Subcontractors	00675 Florida Trench Safety Act	E-Verify Affadavit	Receipt of Addenda #1
Atlantic Development of Cocoa, Inc. 2185 West King Street Cocoa, Florida 32926	$4,012,407.00	Y	Y	Y	Y	Y
Danus Utilities, Inc. 2320 Beardall Avenue Sanford, Florida 32771	$4,496,664.10	Y	Y	Y	Y	Y
Hinterland Group, Inc. 5580 State Road 524 Cocoa, FL 32926	Did Not Submit a Response					

Task Order Request Form

P-Form 2021.09 Revised 07/14/2023

Engineering, Design, Permitting, & Services for Utility Conveyance Systems Upgrades & Expansions	2024-26
Name of CSA (Continuing Service Agreement)	TASK ORDER NUMBER

Date: 02/22/24 City Bid Number: RFQ-17-16-COC Amendment #4 AMOUNT: $ 97,925.00

Vendor Name: DRMP, Inc Quote/Proposal Number: 21-0540.002

Dept. Number/Division Name: 421-4055

Project Name: FRIDAY ROAD UTILITIES EXTENSTION Project Number: WS24WP

Please use this section only if you are revising the original task order, which will generate a change order.

AMENDMENT

Amendment to Original Task Order No. : Requested Amendment Amount:

Original Task Order Amount: Total Revised Amount including all Amendments:

Total number of Amendments including this one:

Scope of Services; Justification for Amendment

This Task Order is for the Friday Road Segment of the Lakes at Cocoa Groves project. In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allow for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.This TO is for Engineering Services During Construction will consist of providing construction administration, submittal review, inspections, RFI and Change Order assistance as-needed, review of testing results, as-builts, and permitting assistance for this project.

Design is Construction Related: ☑ YES ☐ NO ☐ N/A Good Faith Estimate of Construction Value: $ 2,130,760.00

Documentation for Good Faith Estimate Attached and Valid: ☑ YES ☐ NO ☐ N/A

Reference if applicable: Florida Statutes 287.055, Consultants Competitive Negotiation Act (CCNA)

Requestor Department Director

********** DO NOT WRITE BELOW THIS LINE - AUTHORIZED PERSONNEL ONLY **********

Task Order : ☑ Approved ☐ Disapproved

Refer to this Task # on all documentation: 2024-26

Council Approval Required: ☑ YES ☐ NO

Reason Disapproved:

Purchasing & Contracts Division Manager

City Manager (Purchases not to exceed $75K)

Mayor (Purchases that exceed $75K)

1) Requestor: Completes form and forwards all supporting documentation to Department Director.

2) Dept. Director reviews and approves, forwards Task Order and all supporting documentation to purchasing@cocoafl.org. (Subject Line to read: TO-VENDOR NAME Task # (if previously requested) PRICE-DEPT-DIV.)

3) Purchasing assigns Task Order Number and emails link that contains Task Order and all supporting documentation to the Purchasing Manager.

4) Purchasing Manager reviews and approves, uploads approved Task Order Form.

5) Task Order and all supporting documentation is forwarded to the City Manager for review and approval for Purchases not exceeding $75K. Approved Task Order by City Manager will be returned back to purchasing@cocoafl.org. If over $75K, Task Order and all documentation is forwarded back to Requestor who must then initiate an agenda item for City Council Approval. Once approved by City Council the City Clerk will have the Mayor sign both the Task Order Form and the Proposal if applicable and forward copies to purchasing@cocoafl.org.

6) Purchasing logs, the Task Order in the database and forwards fully executed Task Order and all supporting documentation back to Requestor.

Atlantic Development of Cocoa, Inc.

City of Cocoa

Friday Road Utilities Improvements

Glenn S. Grignon
ggrignon@atlanticdevelopmentofcocoa.com
C: (321)403-4896

2185 West King Street
Cocoa, FL 32926
P: (321) 639-8788 | F: (321) 632-3655

SECTION 00300
QUOTE FORM
Friday Road Utilities Improvements
City of Cocoa

Proposal of Atlantic Development of Cocoa, Inc.
(Name)
2185 West King St., Cocoa, FL 32926
(Address)

to furnish all materials, service, equipment, and labor required, for Friday Road Utilities Improvements as specified in Contract Documents.

The undersigned has carefully examined the Contract Documents and is familiar with the nature and extent of the work, materials, and labor required. The undersigned agrees to do all of the work called for by said specifications, in the manner prescribed therein, in accordance with the Contract Documents, for the prices stated in the spaces herein provided.

NOTE THE CONTRACT WILL BE AWARDED BASED ON THE TOTAL QUOTE.

TOTAL QUOTE	$ 4,012,407.00

Four million twelve thousand four hundred seven Dollars
(Total Written in words)

FAILURE TO COMPLETE THE ABOVE WILL RESULT IN THE QUOTE BEING DECLARED NON-RESPONSIVE.

The undersigned also agrees as follows:

1) The undersigned agrees that the quote shall remain firm for a period not to exceed ninety (90) calendar days from the due date of the quote. The undersigned also agrees to commence the work with an adequate force and equipment within thirty (30) calendar days after the issue date of Notice to Proceed or Original Purchase Order. The work shall be substantially completed within two hundred and seventy (270) calendar days from the date of Notice to Proceed or Purchase Order. The work shall be finally completed, ready for Final Payment within thirty (30) calendar days after the actual date of Substantial Completion. The Contractor agrees to reimburse the City of Cocoa, Florida, liquidated damages per the terms and conditions of RFQ 20-18-COC, Agreement for Utilities General Construction Contractor.

2) The Contractor shall procure and shall maintain the insurance requirement during the life of this Contract.

Atlantic Development of Cocoa, Inc.
(Company or Corporation Name)

2185 West King St.
(Street or P.O. Box)

Cocoa, FL 32926
(City, State and Zip Code)

(321) 639-8788
(Area Code and Phone Number)

(321) 632-3655
(Area Code and Fax Number)

ggrignon@atlanticdevelopmentofcocoa.com
(Email Address)

By: Glenn S. Grignon - Vice President
(Name Printed and Title)


(Signature)

City of Cocoa - Friday Road Utilities Improvements Quote Schedule
Quoter will complete the Work in accordance with the Contract Documents for the following prices:

Item #	Item	Qty	UN	Unit $	Extended $
Miscellaneous					
101-1	Mobilization	1	LS	$ 135,880.00	$ 135,880.00
101-2	Pre & post construction video	1	LS	$ 7,500.00	$ 7,500.00
101-3	Record drawings	1	LS	$ 52,750.00	$ 52,750.00
102-1	Maintenance of traffic	1	LS	$ 12,250.00	$ 12,250.00
104-30	Erosion Control	1	LS	$ 10,825.00	$ 10,825.00
110-1-1	Clearing and grubbing	1	LS	$ 34,680.00	$ 34,680.00
121-70	Flowable Fill	16	CY	$ 655.00	$ 10,480.00
327-70-6	Mill ex. Asphalt, 1.5" avg. depth	320	SY	$ 65.00	$ 20,800.00
334-1-13	Superpave asph. Traf C, SP-12.5	30	TN	$ 822.00	$ 24,660.00
570-1-3	Sod, Bahia	2,825	SY	$ 6.15	$ 17,373.75
570-1-4	Sod, St. Augustine (Contingency)	100	SY	$ 17.00	$ 1,700.00
706-1-3	Raised pvmt. Marker, type B	12	EA	$ 150.00	$ 1,800.00
711-11-221	Thermo., std, yellow, solid, 6"	230	LF	$ 35.00	$ 8,050.00
Potable Water					
1050-31-212	12" PVC water main	1,670	LF	$ 100.80	$ 168,336.00
1050-51-208	8" DIP	20	LF	$ 110.00	$ 2,200.00
1050-51-212	12" DIP	60	LF	$ 500.00	$ 30,000.00
1050-41-212	Jack & bore 12" steel pipe	435	LF	$ 1,500.00	$ 652,500.00
1050-41-214	Direct bore 14" HDPE	1,105	LF	$ 355.00	$ 392,275.00
1055-1	Water pipe fittings	3.08	TN	$ 32,865.00	$ 101,224.20
1080-11-303	6"x6" Wet tap	1	EA	$ 9,175.00	$ 9,175.00
1080-11-304	6" Gate valve	5	EA	$ 4,280.00	$ 21,400.00
1080-11-402	8" Gate valve	1	EA	$ 5,200.00	$ 5,200.00
1080-11-403	12"x10" Wet tap	1	EA	$ 18,100.00	$ 18,100.00
1080-11-404	8" Gate valve in manhole	2	EA	$ 14,130.00	$ 28,260.00
1080-11-405	12" Gate valve	8	EA	$ 10,320.00	$ 82,560.00
1080-25-104	2" Blow-off valve	1	EA	$ 5,500.00	$ 5,500.00
1644-116-08	Fire hydrant	5	EA	$ 9,750.00	$ 48,750.00
Force Main					
2050-31-208	8" PVC force main	430	LF	$ 105.00	$ 45,150.00
2050-51-208	8" DIP	60	LF	$ 500.00	$ 30,000.00
2050-41-208	Jack & bore 8" steel pipe	435	LF	$ 1,500.00	$ 652,500.00
2050-41-210	Direct bore 10" HDPE	830	LF	$ 215.25	$ 178,657.50
2055-1	Force main fittings	0.80	TN	$ 37,230.00	$ 29,784.00
2080-11-304	8" Gate valve	4	EA	$ 5,200.00	$ 20,800.00
2080-26-106	Air/vac assembly	3	EA	$ 21,255.00	$ 63,765.00
Reclaimed Water Main					
3050-31-212	12" PVC reclaimed water main	415	LF	$ 126.00	$ 52,290.00
3050-51-212	12" DIP	60	LF	$ 500.00	$ 30,000.00
3050-41-212	Jack & bore 12" steel pipe	435	FL	$ 1,500.00	$ 652,500.00
3050-41-214	Direct bore 14" HDPE	830	FL	$ 248.00	$ 205,840.00
3055-1	Reclaimed water main fittings	1.81	TN	$ 32,255.00	$ 58,381.55
3080-11-304	12" Gate valve	5	EA	$ 10,320.00	$ 51,600.00
3080-11-404	12" Gate valve in manhole	2	EA	$ 18,455.00	$ 36,910.00
				Grand Total Bid	$ 4,012,407.00

Quoter acknowledges that the estimated quantities indicated in the Quote Schedule are not guaranteed, and are solely for the purpose of comparison of quotes, and final payment for all unit price quote items will be based on actual quantities, determined as provided in the Contract Documents.

Submitted by: Glenn S. Grignon

Contractor: Atlantic Development of Cocoa, Inc.

Address: 2185 West King St., Cocoa, FL 32926

Telephone: (321) 639-8788

State of Florida Certified General Contractor or Underground Contractor (Required Information)

Licensee: Tyler Isaac Sirois License No.: CUC1226120

Ron DeSantis, Governor

Melanie S. Griffin, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE UNDERGROUND UTILITY & EXCAVATION CO HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

SIROIS, TYLER ISAAC

ATLANTIC DEVELOPMENT OF COCOA, INC
2185 WEST KING STREET
COCOA FL 32926

LICENSE NUMBER: CUC1226120

EXPIRATION DATE: AUGUST 31, 2024

Always verify licenses online at MyFloridaLicense.com

ISSUED: 12/18/2023

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

SECTION 00330
LISTING OF SUBCONTRACTORS

The Contractor proposes that the following subcontractors are qualified to performed the referenced work and have successfully done so on recent projects similar in nature and size. Upon approval of subcontractors listed the successful quoter shall not substitute subcontractors without approval from the Engineer and Owner.

DESCRIPTION OF WORK	COMPANY NAME ADDRESS & PHONE NUMBER	REFERENCES
Survey	Name: Morgan & Associates	1. 30" DIP WM Well 17 Project
	Address: 504 N. Harbour City Blvd.	2. Michigan Ave. Force Main Repair Project
	City: Melbourne	
	State: FL zip: 32935	
	Phone: (321) 751-6088	3. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
Directional Drill	Name: K3 Directional Drilling, Inc.	1. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
	Address: 8526 SW Kansas Ave.	2. Sea Ray Dr. Sykes Creek 36" Water Main Crossing Project
	City: Stuart	
	State: FL zip: 34997	
	Phone: (772) 600-7118	3.
Wet Tapping	Name: Rangeline Tapping Services	1. Michigan Ave. Force Main Repair Project
	Address: PO Box 210155	2. N. Courtenay 24" Valve Repair Project
	City: Royal Palm Beach	
	State: FL zip: 33421	
	Phone: (800) 346-5971	3. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
Jack and Bore	Name: Wakefield Road Boring	1.
	Address: 9223 Balsamo Dr.	2.
	City: Palm Beach Gardens	
	State: FL zip: 33412	
	Phone: (561) 718-4703	3.
SOD	Name: Bonnie's Sod	1. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
	Address: 4440 Nail Farm Rd.	2.
	City: Melbourne	
	State: FL zip: 32934	
	Phone: (321) 403-3021	3.

SECTION 00675

SECTION IK - FLORIDA TRENCH SAFETY ACT CERTIFICATION AND DISCHARGE STATEMENT MANDATORY

Contractor acknowledges that included in the various items of the proposal and in the Total Quote Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The contractor further identifies the costs to be summarized below.

	ITEM	TRENCH SAFEY MEASURE (DESCRIPTION)	UNIT OF MEASURE	UNIT	UNIT COST	EXTEDED COST
A		Trench Box	LS	1	$21,655.00	$21,655.00
B		Sheet Piling	LS	1	$25,680.00	$25,680.00
C		Sloping	SY	1,200	$6.85	$8,220.00
D						

These units, costs, and the unit prices inferred shall be disclosed solely for the purpose of compliance with the procedural requirements of the Florida Trench Safety Act.

This amount disclosed as the cost of compliance with the applicable trench safety requirement does not constitute the extent of the Contractor's obligation to comply with said standards. Contractor shall expend additional sums, at no additional cost to the OWNER (except as may otherwise be provided), which are necessary to so comply.

Acceptance of the Quote to which this certification and disclosure applies in no way represents that the OWNER or its representatives have evaluated and thereby determined that the above costs are adequate to comply with the applicable trench safety requirements nor does it in any way relieve the Contractor, of its sole responsibility to comply with the applicable trench safety requirements.

Atlantic Development of Cocoa, Inc.
Name of Firm

Authorized Signature

Date: 02/06/2024

This document shall be submitted with the Quote packet. Failure to complete the above may result in the Quote being declared non-responsive.

QUOTE ADDENDUM NO. 1
FRIDAY ROAD UTILITIES IMPROVEMENTS
CITY OF COCOA
February 1, 2024

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions, and/or revisions to, and shall take precedence over, the original documents.

A. This addendum includes and addresses the following questions:

1. According to my Jack-n-bore subcontractor, they do not make 22" steel casing, the standard would be 24" casing. We would also like to use 24" on all 3 bores, as 16" is considered a small, difficult to control bore at the proposed distance. Also we would propose a 10' C/L to C/L separation. Are these acceptable?

   Response: Yes, this is acceptable to the City, however the FDOT and Brightline permits will need to be resubmitted and approved. The costs for the adjustment to the casing size should be included in the following line items; 1050-41-212, Jack and Bore 12" steel pipe, 2050-41-210, Jack and Bore 8" steel pipe, and 3050-41-212, Jack and Bore 12" steel pipe. All other specifications related to the Jack and Bores will still apply including spacer requirements.
2. On sheet C-5.0 the fire hydrant is shown in the bottom of the swale at Sta 11+20+/-. Should there be some additional fittings to relocate hydrant to top of bank of the existing swale?

   Response: The intent is for the hydrant to be as close to the top of bank of swale as possible while staying within the road ROW and not interfering with the roadway. Please include associated fitting costs in line item 1055-1, Water Pipe Fittings.
3. What is the proposed access to the Bore entry location? Can we access from the 528 rights-of-way? Or do we need to "clear & grub" from the South?

   Response: There is an existing trail on the west side of the utility easement that goes to the northeast corner of the property. The owner will grant access for equipment via this trail to the contractor when requested.

B. Attached to Addendum #1 is the E-Verify Contractor Affidavit. This affidavit is required to be filled out, signed, and submitted with the bid proposal.

C. All other Bidding/Contract Documents and Specifications remain unchanged.

The undersigned acknowledges receipt of this addendum to the bid documents.

Bidder/Contractor Name:
Atlantic Development of Cocoa, Inc.

Mailing Address:
2185 West King Street, Cocoa, FL 32926

Glenn S. Grignon
Authorized Signatory

Glenn S. Grignon
Printed Name

Vice President
Title

02/06/2024
Date

PLEASE COMPLETE AND SUBMIT WITH YOUR RESPONSE
Failure to submit this form may be grounds for disqualification of your submittal

CONTRACTOR E-VERIFY AFFIDAVIT

I hereby certify that Atlantic Development of Cocoa, Inc. [insert contractor company name] does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with, section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of Atlantic Development of Cocoa, Inc. [insert contractor company name] proof of registration in the E-Verify system is attached to this Affidavit.

Glenn S. Grignon

Print Name: Glenn S. Grignon

Date: 02/06/2024

STATE OF FLORIDA

COUNTY OF Brevard

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 02/06/2024 (date) by Glenn S. Grignon (name of officer or agent, title of officer or agent) of Atlantic Development of Cocoa, Inc. (name of corporation acknowledging), a Florida (state or place of incorporation) corporation, on behalf of the corporation. He/she is personally known to me or has produced _____ (type of identification) as identification.

Dennis R. Johnson

[Notary Seal] Notary Public

Dennis R. Johnson

Name typed, printed or stamped

My Commission Expires: 01/18/2026

DENNIS R JOHNSON
Notary Public - State of Florida
Commission # HH 181141
My Comm. Expires Jan 18, 2026
Bonded through National Notary Assn.

E-VERIFY IS A SERVICE OF DHS AND SSA

Company ID Number: 774066

Approved by:

Employer	
Atlantic Development of Cocoa Inc.	
Name (Please Type or Print) Glenn S Grignon	**Title**
Signature Electronically Signed	**Date** 04/16/2014
Department of Homeland Security – Verification Division	
Name (Please Type or Print) USCIS Verification Division	**Title**
Signature Electronically Signed	**Date** 04/16/2014

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA; AUTHORIZING THE CITY MANAGER TO APPROVE AND EXECUTE CHANGE ORDERS TO THE PRIMARY CONSTRUCTION CONTRACT AND ANY ADDITIONAL SERVICE CONTRACTS RELATED TO THE FRIDAY ROAD UTILITIES IMPROVEMENTS PROJECT, PROJECT NO. WS21CG, IN AN AMOUNT NOT TO EXCEED THE TOTAL AMOUNT BUDGETED FOR THE PROJECT BY THE CITY COUNCIL INCLUSIVE OF THE 10 PERCENT CONTINGENCY SET ASIDE FOR THE PROJECT; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Section 2-4 of the City Code provides that with respect to construction contracts approved by the City Council, the City Council may authorize by resolution the City Manager to approve change orders to the primary construction contract and any additional service contracts related to the completion of the construction project authorized by the City Council in excess of the spending authority limits under this section provided the amount is within the unexpended construction budget approved by the City Council for the project including any contingency funds approved by the City Council for said contract; and

WHEREAS, on February 27, 2024, the City Council authorized the City Manager to proceed with the Friday Road Utilities Improvements Project, Project No. WS21CG, subject to certain terms and conditions and budget adjustments approved by the City Council; and

WHEREAS, in conjunction with this authorization, the City Council desires to streamline the approval of change orders and any additional service contracts to the extent necessary in order to expedite the construction of the project; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to authorize the City Manager to approve the aforementioned change orders and any additional service contracts consistent with the terms of this Resolution and Section 2-4 of the City Code even if said amounts exceed the City Manager's general spending authority approved by the City Council.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1.

(A) Pursuant to Section 2-4 of the City Code, the City Manager is hereby authorized to approve any change orders to the primary construction contract and any additional service contracts related to the construction project regarding the Friday Road Utilities

Improvements Project, Project No. WS21CG, provided the total amount of approved change orders and any additional service contracts do not exceed the construction budget. The construction budget is $4,012,407.00, with an additional 10% contingency in the amount of $401,240.70 set aside for possible change orders, for a total of $4,413,647.70 for the project. This grant of spending authority shall be interpreted and construed in accordance with the provisions of Section 2-4 of the City Code.

(B) Pursuant to Section 2-4 of the City Code, the City Manager shall also provide notice of any such approved change orders and any additional service contracts to the City Council in the form of an agenda item at the next scheduled City Council meeting or as soon as practicable thereafter.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, in a regular meeting assembled on February 27, 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, Interim City Clerk

RESOLUTION NO. 2024-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AMENDING THE CITY OF COCOA BUDGET FOR FISCAL YEAR 2024; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Cocoa adopted the final budget for the fiscal year commencing on October 1, 2023, and ending on September 30, 2024, at a Regular meeting held on September 26, 2023; and

WHEREAS, in accordance with Article XII, Section 5 of the City of Cocoa Charter, whereby the Council may, at any time by resolution, transfer any unused and unencumbered appropriation or portion thereof from one office or department to another; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to amend its budget as provided in this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1. The 2023-2024 fiscal year budget shall be amended as detailed in the attached sheets.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, in a Regular meeting assembled on the 27th day of February 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, City Clerk

City of Cocoa Budget Adjustment Form FY 2024 - 24-057-IFT

SELECT ADJUSTMENT TYPE: INTERFUND TRANSFER | REQUESTING DEPARTMENT #: UT | DATE PREPARED: 02/22/24

'REVENUE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 1,820,000		WS24WP	See Tracking Sheet	$ 0	$ 0	$ 1,820,000	$ 0
$ 712,831		WS24WP		$ 0	$ 0	$ 712,831	$ 0
$ 1,880,817		WS24WP		$ 0	$ 0	$ 1,880,817	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 4,413,648	TOTAL						

'EXPENSE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 1,820,000		WS24WP	See Tracking Sheet	$ 0	$ 0	$ 1,820,000	$ 0
$ 712,831		WS24WP		$ 0	$ 0	$ 712,831	$ 0
$ 1,880,817		WS24WP		$ 0	$ 0	$ 1,880,817	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 4,413,648	TOTAL						

REASON/JUSTIFICATION FOR ADJUSTMENT:

This inter-fund transfer is moving funds to the Friday Road Utility Improvement Project WS24WP, formally known as WS21CG Cocoa Grove Utility Ext. to the Renewal and Replacement Fund (424). The use of Funds: Restricted Off-site Improvements will fund a part of the Sewer portion of the project $1,820,000, Sewer Impact Fees $712,831 and Water Impact Fees $1,880,817. for a total of $4,413,648 for Construction and 10% Contingency.

Agenda 24-057

Council/Board APPROVAL REQUIRED? YES (●) NO ( ) DATE APPROVED: 02/27/24 RESOLUTION #:

City Council approval is needed for all transfers greater than $75,000 and transfers between Departments / Funds. All CRA adjustments are required to go their respective boards.

Lora Howell Digitally signed by Lora Howell Date: 2024.02.22 15:43:44 -05'00'

Date — Requestor's Signature

Dave Radford Digitally signed by Dave Radford Date: 2024.02.23 08:45:48 -05'00'

Date — Finance Approval Signature

Date — Finance Director's Signature

John "Jack" Walsh Digitally signed by John "Jack" Walsh Date: 2024.02.22 16:20:54 -05'00'

Date — Department Director's Signature

Lora Howell Digitally signed by Lora Howell Date: 2024.02.22 15:43:26 -05'00'

Date — Deputy Fin. Director's Signature

Date — City Manager's Signature

FINANCE USE ONLY:

Date Entered: _____ Entered By: _____ Group #: _____

Approved 07/13

Revised eform 8/3/23 - IT

Friday Road Utility Improvement - Windward BAF#24-057-IFT 2-27-24 Agenda 24-057

Revenue

Adjustment Amount	Account	Project Number	Account Name	
$ 1,820,000	425-0000-389.99-50		Fund Balance - Restricted Off Site Improvements	(Sewer)
$ 1,820,000	424-0000-381.91-25		Transfer From 425	(Sewer)
$ 712,831	424-0000-381-91.42		Interfund Transfer From 422	(Sewer)
$ 712,831	422-0000-389.99-50		Fund Balance - Impact Fees	(Sewer)
$ 1,880,817	422-0000-389.99-50		Fund Balance - Impact Fees	(Water)
$ 1,880,817	424-0000-381-91.42		Interfund Transfer From 422	(Water)
$ 8,827,296	**Total Revenue Fund 424**			
	Total Sewer	**$ 2,532,831**		
	Total Water	**$ 1,880,817**		
		$ 4,413,648		

Expense

$ 1,820,000	425-4010-581.91-24		Interfund Transfer to R&R (424)	(Sewer)
$ 1,820,000	424-4055-536.63-00	WS24WP	Infrustructure	(Sewer)
$ 712,831	422-4010-581.91-24		Interfund Transfer to R&R (424)	(Sewer)
$ 712,831	424-4055-536.63-00	WS24WP	Infrustructure	(Sewer)
$ 1,880,817	422-4010-581.91-24		Interfund Transfer to R&R (424)	(Water)
$ 1,880,817	424-4055-536.63-00	WS24WP	Infrustructure	(Water)
	Total Infrustructure Fund 424			
	Total Sewer	**$ 2,532,831**		
	Total Water	**$ 1,880,817**		
		$ 4,413,648		
$ 8,827,296				

Legislation Details (With Text)

File #:	24-058	**Version:** 1	**Name:**		
Type:	Agenda		**Status:**	Agenda Ready	
File created:	1/30/2024		**In control:**	City Council	
On agenda:	2/27/2024		**Final action:**		
Title:	To Approve Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for Construction of the Osage/Angelica Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not To Exceed $371,738.53 (10% of the Contract Amount) for a Total Project Cost of $4,089,123.83; To Approve a Resolution Amending the FY2024 Budget, BAF#24-058-IFT. (Utilities Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Settlement Agreement.pdf Agreement for Utilities General Construction Contractor Atlantic.pdf 1st Amendment Atlantic Fully Ex.pdf Angelica-Osage Quote Package.pdf Appendix B - Osage Angelica Bid Plans.pdf Osage-Angelica Quote Tabulation Sheet.pdf TO-ATLANTIC DEV 2024-09 $3,717,385.30 - UT_ENGIN.pdf Osage_Angelica Utilities Improvements Bid from Atlantic Development of Cocoa.pdf Contingency Resolution - Osage-Angelica.pdf Budget Resolution Osage-Angelica.pdf Tracking Sheet BAF 24-058-IFT.pdf BAF 24-058-IFT-UT-Osage-Angelica Utility Improvement (2-27-24) Agenda 24-059.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 30, 2024
Agenda Date: February 27, 2024
Prepared By: Katherine D. Ennis, P.E., Deputy Utilities Director
Through: John A. Walsh, P.E., Utilities Director
Requested Action:
To Approve Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for Construction of the Osage/Angelica Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not To Exceed $371,738.53 (10% of the Contract Amount) for a Total Project Cost of $4,089,123.83; To Approve a Resolution Amending the FY2024 Budget, BAF#24-058-IFT.

BACKGROUND:

The City of Cocoa and the Virgin Trains USA Florida, LLC executed a Settlement Implementation Agreement pursuant to two previous Development Agreements the property located at I-95 and State Road 528. The City of Cocoa has agreed to design, permit and construct water, sewer and reclaim services to this property subject to certain terms for development.

In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allows for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.

DRMP will also be perform the engineering services during construction (SDC), pending City Council approval.

On February 7, 2024, the City of Cocoa solicited quotes for the Osage/Angelica Utilities Improvements Project from three (3) continuing service contractors pre-qualified by the City of Cocoa Utilities Department under RFQ 20-18-COC City of Cocoa General Contractor - Utility Systems. The following responses were received:

- Atlantic Development of Cocoa, Inc. - $3,717,385.30;
- Danus Utilities, Inc. - $4,110,400.70;
- Hinterland Group, Inc. - Did Not Submit a Response.

Staff is requesting City Council approval of Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for construction of the Osage/Angelica Utilities Improvements Project as a multi-year contract.

Staff is also requesting that City Council approve an additional $371,738.53 as contingency for the project. The additional amount is 10% of the contract amount and will be used for change orders with approval by the City Manager. Although City staff does not anticipate change orders, with a project of this size there is always a possibility of unknown obstacles in the field that would require changes to the project. If a change order is needed, the additional amount will allow the project to continue forward while minimizing delays.

The additional $371,738.53 for Construction Contingency Budget will not be added to the initial purchase order. Each change order will be reviewed by staff before it is sent to the City Manager for approval, and subsequently added to the purchase order.

Staff recommends approval of Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for construction of the Osage/Angelica Utilities Improvements Project.

This project is partially funded in FY24. A Budget Adjustment Form (BAF) is necessary to allocate additional funding from Account Number XX to Project Number WS21CG Account Number 421-4055-536.63-00 (Infrastructure).

Contractor Bid	$3,717,385.30
Construction Contingency	$371,738.53 (10%)
Total Project Cost:	$4,089,123.83

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STRATEGIC PLAN CONNECTION:

NA

BUDGETARY IMPACT:

Budgeted	Yes, Partial
If not budgeted, is amendment/transfer attached?	Yes

BAF#24-058-ITF-See Tracking Sheet

Amount Requested	$4,089,125
Account Number	424-4055-536.63-00 WS24LC
Account Name	Infrastructure

Source of Funds: Impact Fees and Original Budget WS21CG

TOTAL COST FOR MULTI-YEAR CONTRACT: $4,089,125

PREVIOUS ACTION:

February 9, 2021 - Approved Task Order 2021-21 with Bussen Mayer Engineering Group, Inc. for Professional Engineering and Consulting Services for the Lakes at Cocoa Grove - Utility Extensions, Project No. WS21CG; Approved a Resolution Amending the FY2021 Budget, BAF #21-045-T

RECOMMENDED MOTION:

To Approve Task Order 2024-09 with Atlantic Development of Cocoa, Inc. for Construction of the Osage/Angelica Utilities Improvements Project; To Approve as a Multi-Year Contract; To Approve a Resolution Authorizing the City Manager to Approve and Execute Change Orders in an Amount Not to Exceed $371,738.53 (10% of the Contract Amount) for a Total Project Cost of $4,089,123.83; To Approve a Resolution Amending the FY2024 Budget, BAF#24-058-IFT.

City of Cocoa
65 Stone St
Cocoa FL 32922

21/17

THIS INSTRUMENT WAS PREPARED BY
AND SHOULD BE RETURNED TO:

Anthony A. Garganese
City Attorney of Cocoa
Garganese, Weiss, D'Agresta & Salzman, P.A.
111 N. Orange Avenue, Suite 2000
Orlando, FL 32802

(407) 425-9566

CFN 2019226469, OR BK 8564 PAGE 2243,
Recorded 10/16/2019 at 03:17 PM, Scott Ellis, Clerk of
Courts, Brevard County
Pgs:21

FOR RECORDING DEPARTMENT USE ONLY

SETTLEMENT IMPLEMENTATION AGREEMENT

(Residential Subdivision and Lake Amenity Excavation)

THIS SETTLEMENT IMPLEMENTATION AGREEMENT ("Agreement") is made and executed this 10th day of July, 2019, by and between the **CITY OF COCOA,** a Florida Municipal Corporation ("City"), whose address is 65 Stone Street, Cocoa, Florida 32922, and **VIRGIN TRAINS USA FLORIDA, LLC**, a foreign limited liability company organized in the State of Delaware ("Developer"), whose address is 161 NW 6th Street, Suite 900 Miami, FL 33136.

WITNESSETH:

WHEREAS, Developer has entered into a contract to purchase approximately 246 acres, more or less, of real property located north of State Road 528 and east of Highway I-95, Cocoa, Florida, more particularly described in Section 3 and depicted in Section 8 of this Agreement ("Property"); and

WHEREAS, the Property is subject to that certain City of Cocoa/Florida Space Needle, LLC Preceding Development Agreement, dated August 24, 2004 ("Preceding Development Agreement"); and

WHEREAS, the Property is also subject to that certain Stipulated Settlement Agreement entered into in Brevard County v. City of Cocoa, Case No. 05-2005-018141, which was recorded on January 9, 2008 in Official Record Book 5837, Page 2226 of Brevard County, Florida ("Stipulated Settlement Agreement"); and

WHEREAS, Developer desires to proceed with the acquisition of the Property and permit and construct a low-density residential subdivision (approx. 320 units) on the Property consistent with the terms and conditions of the Preceding Development Agreement and the

Settlement Agreement and as more specifically required by this Settlement Implementation Agreement; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, the parties mutually agree as follows:

1.0 Recitals. The foregoing recitals are true and correct and are hereby incorporated herein by this reference.

2.0 Authority. This Agreement is entered into pursuant to the Florida Municipal Home Rule Powers Act and in furtherance of implementing the terms and conditions of the Preceding Development Agreement and Stipulated Settlement Agreement.

3.0 The Property. The real property subject to this Agreement has tax parcel identification numbers of 24-35-10-00-3 and is legally described in **EXHIBIT "A"**, attached hereto and fully incorporated herein by this reference ("Property").

4.0 Condition Precedent - Acquisition of Property by Developer. Developer represents and warrants to the City that they have entered into a binding written contract to purchase the Property ("Purchase Agreement") and that the Developer intends to expeditiously pursue the completion of the closing on the Property upon the Effective Date of this Agreement. Based on this representation and warranty to the City, Developer further represents and warrants to the City that it is empowered to negotiate and enter into this Agreement. However, the acquisition of fee title to the Property by the Developer shall be a condition precedent to the Parties commitments and obligations set forth under this Agreement. As such, Developer shall keep the City fully apprised of the status of said closing and shall faithfully and expeditiously complete the closing within ninety (90) days of the Effective Date of this Agreement ('Closing Date"). At least ten (10) days prior to the Closing Date, the Developer shall provide the City Manager and City Attorney a complete copy of the title commitment (with copies of all supporting documents) for closing on the Property so the Parties can determine whether the title commitment including the items listed on Schedule B II Exceptions causes any impediment to the completion of the subdivision of the property as depicted on the Concept Plan described in Section 8.0 of this Agreement or the excavation of the lake amenity described in the Section 10.0 of this Agreement. The City in its reasonable and sole discretion may declare any such impediment as a default and Developer shall be afforded an opportunity to cure said default under Section 29.0 of this Agreement. If Developer fails to cure said default, the City Manager, in his sole discretion and by written notice, shall have the right to terminate this Agreement. Further, if Developer fails to complete the closing by the Closing Date, the City Manager shall have the right, in his sole discretion and by written notice, to either extend the Closing Date for a reasonable time period not to exceed one (1) year to allow Developer to complete the closing, or terminate this Agreement.

5.0 Project Description and Requirements. Developer shall design, permit and construct one of the premier, upscale low-density residential subdivisions in the City of Cocoa. The subdivision shall be created and constructed in a single phase and consist of approximately

320 residential lots and homes with a minimum living area under air of one thousand five hundred (1,500) square feet and an average living area under air of one thousand eight hundred (1,800) square feet, private streets, ample private recreational common area green space and amenities, including a private Amenity Center and a proposed 38-acre, more or less, amenity lake (the "Project"). The Developer may construct the homes in accordance with a phasing plan approved by the City. The Project shall have a homeowner's association, which shall be responsible for maintaining the common areas in perpetuity. The Project shall be constructed in accordance with the requirements set forth in this Agreement.

6.0 Zoning Application. Developer acknowledges that the current City Comprehensive Plan, Future Land Use Map designation on the Property is very low-density residential with several areas subject to a conservation overlay designation. Developer agrees to comply with the current Future Land Use Map designation. However, the Property does not currently have a City zoning designation. Therefore, in furtherance of compliance with the City's Comprehensive Plan, Developer agrees to seek a City zoning designation for the Property of RU-1-7, Single-Family Residential District, which is consistent with the very low-density residential Future Land Use Map designation. Within thirty (30) days of the Closing Date, , unless an extension is granted by the City Manager for good cause, Developer agrees to submit a complete rezoning application with the City to request approval of a RU-1-7 zoning designation. The City and Developer will process the application through completion within one hundred eighty (180) days of the date that a complete application has been submitted to the City, unless an extension is required and granted by the City Council. The City agrees to process said application consistent with the requirements of the City Code and law. Nothing contained herein shall be construed or interpreted as requiring the City Council to approve said application. The City Council will consider and act upon said application at its discretion at appropriate public hearings pursuant to the requirements of law. If the RU-1-7 application is denied by the City Council, the Developer shall submit and process a different rezoning application consistent with the very-low density residential Future Land Use Map designation until such time as the City Council approves an acceptable City zoning designation for the Property. Should a different zoning district be approved, Developer acknowledges that a modification to this Agreement may be required to comply with such approved district's dimensional and/or open space requirements.

7.0 Location of Ingress/Egress Points – North and Southeast Corner of Project. Pursuant to the Stipulated Settlement Agreement, the Project shall have two public road access points. The northern access point shall be at the existing southern terminus of Bahia Street. However, Brevard County is required to choose between two options for public road access at the southeastern corner of the Project: (1) Osage/Angelica Street or (2) south along the 100-foot wide drainage canal right-of-way connecting to Grissom Road. The Parties acknowledge that the County's choice will result in a small variation to the subdivision layout of several of the residential lots proposed within the southeast corner of the Project. To account for this variation, the Parties have agreed to two alternative Conceptual Development Plans for the Project, taking into account both options as more specifically set forth in Section 8.0 of this Agreement. Upon the Effective Date of this Agreement, the Parties agree to submit the two alternative Conceptual Development Plans to the County and formally request, in writing, that

the County choose one of the public road access options for the southeastern corner of the Project as required by the Stipulated Settlement Agreement. The Parties also agree to cooperate with each other in promptly obtaining the County's decision on the chosen public road access option at the southeastern corner of the Project. In addition, until the selection is made by the County, the Parties cannot estimate with reasonable certainty the potential cost to the Developer of the public road access to the Property, including the cost of any required land (especially if the drainage canal route is selected), road improvements, drainage, signalization at the Grissom Parkway, lighting or other special roadway requirement. As such, upon selection by the County, the Developer shall work with the County to promptly ascertain, in writing, the estimated cost of public road access, and provide a written copy of the same to the City, no later than six (6) months from the date of the County's selection. If the County's selected option results in unreasonably excessive estimated roadway costs on the Developer that are not economically feasible for the Project to financially support, using reasonable and customary home building industry standards relative to the density of the Project, the Developer may request, in writing, to meet with the City Manager to discuss and negotiate an alternative Concept Plan and any necessary amendments to this Agreement that make the Project economically feasible by reasonable and customary home building industry standards. Any alternative Concept Plan and amendments to this Agreement shall require City Council approval.

8.0 Two Alternative Conceptual Development Plans; Subdivision and Site Plan Approval.

8.1 Depending on the public road access point chosen by the County at the southeastern corner of the Project, the Project shall be substantially developed in accordance with one of the applicable alternative conceptual development plans which are attached hereto as **EXHIBIT "B"** and incorporated herein by this reference (**"Concept Plan"**). The Concept Plan is intended to be the general blueprint which details key aspects of the future physical development of the Property. The Concept Plan shall also serve as a necessary guide for future permit applications and permitting necessary to complete the construction of the Project. Developer shall have the obligation to further submit and obtain the City's approval of a final subdivision plat, final site plan and final engineering plans (**"Final Plans"**) consistent with the Concept Plan in all material respects and in compliance with the City Code and the amenities schedule required by Section 11.0 of this Agreement. Developer acknowledges and agrees that the Concept Plan was not created with specific surveyed dimensions and that during the Final Plans process such dimensions shall be surveyed, duly engineered, and provided to the City for consideration under applicable City Codes. The Concept Plan shall be subject to reasonable adjustments at the Final Plans phase in order to bring the Project into full compliance with the City Code, and as a result, the exact location, layout and dimensions of the lots, common areas, buildings, landscaping, entrances, utilities, parking and other site improvements may vary slightly between Concept Plan approval and approval of the Final Plans. Further, additional lots greater than the number of lots depicted on the Concept Plan may be approved at the City's discretion, provided the additional lots do not reduce the proposed amount of open space and recreational areas depicted on the Concept Plan. These changes shall be allowed as long as the changes are consistent with the development standards noted in this Agreement and preserve the

general character of the development shown on the Concept Plan. The City will not unreasonably withhold approval of the Final Plans and amenities schedule.

8.2 The Parties agree that time is of the essence to complete the Project. Therefore, if the County selects public road access on Osage/Angelica Street under the Stipulated Settlement Agreement, Developer shall have eighteen (18) months after said selection to obtain Final approval of the Final Plans unless otherwise agreed by the City Council. However, if the County selects public road access south along the 100 foot-wide drainage canal right-of-way, Developer shall have eighteen (18) months from the date that the County confirms to the Parties that it has received an order of taking or otherwise acquired the necessary lands or interests to allow the public road access to obtain Final approval of the Final Plans unless otherwise agreed to by the City Council.

9.0 Public Utilities; Project Completion and Reimbursement Obligations. Pursuant to Section 4.8 of the Preceding Development Agreement, the Developer has elected not to design, permit and construct the extension of the water, sewer and reclaimed utilities to the Property ("Utilities"). Therefore, the City will design, permit and construct the extension of the Utilities up to the point(s) of connection at the boundary of the Property as determined and deemed appropriate by the City, subject to the following terms and conditions:

(1) The City will design, permit, construct and make the Utilities available to the Property no later than the date that the Developer has: (a) completed and received a final completion certificate (e.g., evidence of final written approval) from the City for all on-site infrastructure to support the Project including, but not limited to, streets, street lights, on-site utilities, sidewalks, and stormwater facilities; (b) been issued and received building permits for at least ten (10) building permits approved by the City for residential units; and (c) commenced vertical construction of the ten residential homes on the Property ("Utility Completion Date"). Prior to commencing construction of the Utilities, the City shall provide the Developer a written estimate of the Total City Utility Expenses described in Subsection (2) below.

(2) Developer shall complete construction of the Project by obtaining all required certificates of occupancies within five (5) years from the Utility Completion Date ("Project Completion Obligation"). In furtherance of the Project Completion Obligation, within ninety (90) days from the date that the City completes the Utilities, the City will deliver written notice to the Developer documenting the expenses incurred by the City to design, permit and construct the extension of the Utilities to the Property ("Total City Utility Expenses"). Within sixty (60) days of receipt of said written notice, the Developer, at its expense, shall secure the reimbursement of the Total City Utility Expenses in the event the Developer fails to fully satisfy the Project Completion Obligation by providing the City with an irrevocable stand-by letter of credit in the amount of such expenses incurred by the City. The letter of credit shall be in favor of the City and shall be issued by a bank mutually agreed to by the Parties. The letter of credit shall be in a form acceptable to the City to effectuate the reimbursement, if required due to Developer's failure to make reimbursement pursuant to Subsection (3) below. The letter of credit shall be subject to being drawn upon by the City in the event that the Developer fails to fully satisfy the Project Completion Obligation. The letter of credit shall remain in effect until

such time the City provides written notice to the Developer that they have fully satisfied the Project Completion Obligation or the City receives reimbursement pursuant to Subsection (3) below, whichever occurs sooner. However, the City agrees that Developer may proportionately reduce the value of the letter of credit by the number of certificates of occupancies granted by the City for the homes constructed in the Project. Said reduction shall occur only at twenty percent (20%) intervals of construction. The letter of credit may also be reduced on an annual basis by the amount of any home rule special assessment collected on the Property pursuant to Subsection (4) below. Any reduction of the letter of credit shall require prior written notice to the City and confirmation by the City the reduction amount is accurate.

(3) Upon failure to fully satisfy the Project Completion Obligation, the City may provide Developer written notice declaring Developer in default under this Agreement and demanding full reimbursement, within thirty (30) days, of the Total City Utility Expenses, less any credits as a result of any home rule assessments paid pursuant to Subsection (4) below, if any. If Developer fails to timely make such payment, the City shall have the right to draw upon the letter of credit required by Subsection (2) above.

(4) The City shall have the right at any time to adopt and impose a home rule special assessment on the Property, and the lots created thereon, to recover the Total City Utility Expenses. In furtherance of said right, the Developer hereby voluntarily and irrevocably consents to said assessment and that the extension of Utilities constitutes a special benefit to the Property. Developer further agrees not to directly or indirectly contest or challenge such special assessment. The assessment, if imposed by the City, will be collected and enforced in accordance with the Uniform Method of Collection and Enforcement of Non-Ad Valorem Special Assessments under Florida law. In the event that a special assessment is imposed and the City collects the full amount of the Total City Utility Expenses by assessment, the City agrees to release the letter of credit obligation in full if still in effect pursuant to Subsection (2) above.

(5) Within one hundred eighty (180) days of the County's selection of the preferred public road access described in Section 7.0, the Developer shall convey a perpetual public utilities easement upon, over and under the Property that allows the City to connect the future public utilities constructed on the Property with the Barrera Property (approx. 267 acres) located south of State Road 528. It is anticipated that the easement will be a minimum of forty (40) feet and a maximum of sixty (60) feet in width and be located generally around the area where the Developer intends to construct the conveyance system under and over State Road 528 to support the excavation of the proposed lake pursuant to Section 10.0 of this Agreement. In conjunction with the Developer's construction of the conveyance system, Developer shall fully cooperate with the City to coordinate and assist the City's plans and efforts to permit, construct and install future public utilities under State Road 528 including the installation of one or more casings, conduits or culverts to support future water, sewer and reclaimed utilities. The Parties agree that the Developer's coordination, cooperation and assistance does not constitute permission, or the requirement to gain permission, for the City to place the casing, conduit or culverts in the said area which is not owned by the Developer. The Parties acknowledge that the property is not owned by the Developer and that the City must gain the necessary permissions and permits from

the property owner (Florida Department of Transportation) and any other required regulatory entity to perform the required utility work. However, the final location and required width of the easement area shall be required to satisfy the City's reasonable and necessary future utilities needs which shall be determined by the City's Utilities Director. The easement shall be in form approved by the City Attorney. During the construction of the required utility work by the City, the City agrees to coordinate its utility activities in a manner that does not interfere with the excavation operation or the construction and operation of the proposed future Brightline rail line.

(6) The Developer shall be responsible for the design, permitting and construction of all on-site utility infrastructure required to serve the Property including, but not limited to water, sewer, reclaimed stormwater pipes, sewer lift stations and pumps, electric lines and equipment, cable lines and equipment, phone lines and equipment, gas lines and equipment and other utility pipes, lines and equipment. Should City utility policy require that certain on-site water, sewer, reclaimed or stormwater utility infrastructure be conveyed to the City upon completion by the Developer, said conveyance of any such infrastructure shall be by written bill of sale along with any warranties and maintenance bonds or letters of credit.

(7) In the event the Developer fails to convey the utility easement required by Subsection (5) above, or obtain approval of the Final Plans required by Section 8.0 of this Agreement within the time schedule set forth in Section 8.2, or if the City declares, in writing, that Developer failed to complete the lake amenity as required by Section 10.0 either upon completion of the excavation or abandonment, the City's commitment to design, permit and construct the Utilities to the Property shall terminate and thereafter, the Developer, at Developer's sole expense, shall be fully responsible for the design, permitting and construction of the Utilities to the Property in accordance with City technical specifications and standards.

10.0 Permitting and Construction of Lake Amenity. Upon the Effective Date of this Agreement, the Developer shall be allowed to submit an application with the City for an excavation permit for purposes of constructing the proposed 38-acre, more or less, lake amenity as depicted on the Conceptual Plans. The excavation permit shall be subject to Chapter 12.5 of the City Code and shall be in the form of an Excavation Permit Agreement executed by the Parties. The Excavation Permit Agreement shall be subject to the terms and conditions of this Agreement, and any other applicable state and federal laws. The commencement of excavation shall be contingent upon the Developer closing on the Property and the City's determination that the title commitment does not identify any impediment to the completion of the subdivision of the Property or the excavation of the lake amenity as provided by Section 4.0 of this Agreement. The excavation site and Property shall be maintained and secured by the Developer in a safe and sanitary condition at all times in compliance with applicable laws, administrative rules, or City Code. Notwithstanding any other terms and conditions in this Agreement and the Excavation Permit Agreement, Developer, upon completion of the excavation, shall be required to complete the lake amenity in anticipation of, or in conjunction with, the residential subdivision required by this Agreement. Should the excavation be completed before the Final Plans are approved by the City, Developer shall be required to submit, for the City's approval, plans and specifications necessary for the Developer to complete the lake amenity including, but not limited to, bank

stabilization, seeding and final contouring and shaping of the lake to support the future subdivision and accommodate the future amenities required by amenity schedule approved by the City during Final Plans approval, including landscaping, walking trails, usable open space and other pedestrian friendly recreational and beautification features. The Excavation Permit Agreement shall be in a form approved by the City Manager and City Attorney, and the City Manager is authorized to execute the Excavation Permit Agreement on behalf of the City. In order to reduce and mitigate against any potential negative impacts of the excavation on surrounding properties, the Developer agrees to employ an excavation strategy that requires the excavation materials to be removed from the Property via a conveyance system running above or underneath State Road 528 for use by the future proposed Brightline railroad route along the State Road 528 corridor. Developer has represented to the City that they are pursuing a permit from the Florida Department of Transportation to employ this excavation strategy subject to the City permitting the excavation. However, during the excavation, access to and from the Property by excavation workers and to receive delivery of equipment and materials for the excavation shall be allowed via the existing public road network as specified in the excavation permit agreement. Notwithstanding the foregoing, should Developer choose to forego or substantially reduce the scope and size of the excavation, Developer acknowledges that a modification to this Agreement may be required by the City to at least modify the Concept Plan to incorporate more upland buildable areas and recreational space.

11.0 Other Project Recreational Amenities and Enhancements. As a condition of approval of the Final Plans, Developer shall design, permit and construct, at its own expense, the following minimum schedule of Project amenities and enhancements in scope and scale to adequately support the number of residential lots required for the Project:

(1) Central Amenity Center (community clubhouse) with a feature pool, open space area with a community pavilion (picnic tables and grills) along with a state-of-the-art modern tot-lot and playground. The City prefers that the tot-lot and playground be adequately covered from sun exposure by a playground UV rated canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(2) Multi-use sports field.

(3) Multipurpose courts (convertible for volleyball, basketball, pickleball and/or tennis).

(4) Smaller common open space lots and areas throughout the community that include small playgrounds and areas with benches. The City prefers that the playground and bench areas be adequately covered from sun exposure by a UV rated playground or other canopy and shade trees and that the Developer shall seriously evaluate and consider providing such covering when the amenities schedule is approved during Final Plans approval.

(5) Connected multipurpose trail throughout the community that connects to all recreational common open spaces including the existing lakes and lake amenity.

(6) A streetscape design deemed acceptable by the City, which emphasizes sidewalks, connectivity within the community, tree-lined streets, and decorative street lights to add appeal and security and decorative signage.
(7) Decorative and landscaped entrance features to the Project deemed acceptable to the City which may include a restricted gated entry feature.
(8) The City prefers that the residential driveways shall be constructed of stone or brick pavers, or stamped and stained concrete. The Developer shall seriously evaluate and consider providing such driveways during the approval of Final Plans.(9) All utilities constructed on the Property including, but not limited to, electric, water, sewer, reclaimed water, cable, phone, fiber optics, natural gas and other similar kinds of utilities to service the Property shall be constructed underground unless otherwise necessary to be above ground and approved by the City. Each lot and all common landscaped areas shall be equipped with in-ground reclaimed water irrigation systems to maximize the use of the City's reclaimed water service.
(10) The Project shall incorporate the use of energy efficient lighting systems, insulation and ENERGY STAR rated windows, low-flow water fixtures, modern heat pumps, energy efficient HVAC systems, and optional roof top solar panels.

Developer may also propose additional amenities for the City's consideration and approval. All Project amenities and enhancements shall be completed and finally accepted by the City in accordance with the written amenities construction schedule approved by the City in conjunction with the approval of the Final Plans. Upon approval, the written amenities construction schedule shall automatically be deemed incorporated within and made a part of this Agreement. All Project amenities and enhancements shall be maintained in perpetuity by the homeowner's association required to be created by this Agreement.

12.0 Building Elevations and Floor Plans. As condition of approval of the Final Plans, the Developer shall submit to the City for final approval building elevations and related floor plans for the proposed homes and Central Amenity Center (community clubhouse) to be constructed on the Property. Upon approval by the City, the building elevations and related floor plans shall be deemed incorporated herein by this reference and said buildings shall be constructed substantially in accordance with the approved building elevations and floor plans. Further, other aspects of the building façade and roof lines, color scheme, and architectural features depicted on the building may have to be adjusted during the City's final review and administrative approval procedures to issue a building permit. The design of the homes and Central Amenity Center (community clubhouse) shall create one aesthetically pleasing and unified Project.

13.0 Homeowner's Association. In conjunction with the approval of the final subdivision for the Project, the Developer shall create a mandatory homeowner's association to govern the Project in accordance with Chapter 720, Florida Statutes. The association shall also be governed by the covenants and restrictions created and recorded against the Property by the Developer as required by this Agreement. A copy of the association's articles of incorporation, by-laws and recorded covenants and restrictions shall be provided to the City prior to the

approval of the final subdivision. The homeowner's association shall be responsible for the perpetual maintenance and operation of all common areas and amenities constructed for the Project, shall govern the Project in accordance with the requirements of Florida law including the recorded covenants and restrictions and by-laws of the association, have the power to levy assessments and collect HOA fees, which are used to pay for the maintenance of the community common areas and any other designated areas that are detailed in the covenants and deeds applicable to the Project.

14.0 Model Homes. The City agrees to allow the Developer or Developer's chosen homebuilder(s) (hereinafter referred to in this Section as "Builder") for the Project to construct both a sales office and up to four (4) model homes to be used for the customary temporary marketing and sales activities of the Builder. The Builder shall have the right to utilize two garages in two model home units as the temporary sales office. The City represents that such marketing and sales activities shall be permitted through buildout of the Project. The City agrees to permit early construction of the model homes prior to or after plat approval, provided that, prior to construction of the model homes, stabilized access to the model home lots and adequate means of fire protection from a City-approved source of water are completed and the following conditions, which are deemed acceptable to Builder, are adhered to:

(a) The model homes shall remain under Builder's ownership and control until such time as a final certificate of occupancy for each model home unit is issued under the conditions set forth below. In other words, the Builder shall not contract for sale, sell, or lease any of the individual model home units until such time as the City issues a final certification of occupancy for each model home unit.

(b) The model homes shall be constructed on existing or proposed lots approved by the City, and any associated parking, pedestrian activity and other activities conducted by sales staff or the general public shall be adequately segregated from construction activities to ensure safety. Parking for the model homes shall be provided in a temporary parking lot to be located in an area approved by the City, which may consist of a mulch surface. Prior to a final certificate of occupancy being issued on the last remaining model home, the mulch surface shall be removed and the area shall either be prepared for home construction, open space or recreational amenity or seeded.

(c) The model sales office shall comply with all applicable state and city regulations regarding accessibility. In addition, Builder shall provide a minimal level of access to all model homes for potential homebuyers with disabilities by providing physical access (via ramp or lift) to the primary level each model home and making photographs of other levels within each home available to the customer.

(d) Prior to construction, the model homes shall be duly permitted by the City in accordance with the City's Code. As part of the building permit application, the Builder shall submit, along with all construction plans for the units, a duly certified boundary survey which shall depict the location and legal description of each individual model lot. The Builder acknowledges and agrees that this legal description is intended to coincide with the eventual

location of the lots as depicted and legally described on the final plat. The Builder shall assume full and complete responsibility in the event that said legal descriptions do not conform to the lot lines required by the City in the final plat. The Builder fully understands the construction of model homes before final plat is approved by the City may pose a risk to the Builder if the approved plat is not consistent with the layout of model home on the subject property, and that such risk may require modification or removal of the model home based on the approved plat before a final certificate of occupancy can be issued for the model home. The Builder agrees to defend, indemnify, and hold harmless the City from and against any and all damages, losses or claims arising from the layout and construction of the model home under this Agreement prior to preliminary and final plat approval as provided further in Section 32.0 of this Agreement.

(e) At such time as the City Building Official completes and approves a final inspection of the model homes, the City will issue a temporary certificate of occupancy. Said temporary certificate of occupancy shall be issued for each model home as a whole. Occupancy of the model home units shall be limited to the sales and marketing efforts for the Project until a final certificate of occupancy is issued for such model home units. It is intended that the model homes can be shown by sales staff to prospective buyers as long as the Building Official has issued the temporary certificate of occupancy and the model is not staffed continuously.

(f) Following completion of all required plat improvements, at the request of the Builder or at such time as the Project development is completed, whichever occurs sooner, the model home units shall be converted into permanent residential units and the City shall issue final certificates of occupancy for each model home unit, provided, that the City Building Official determines that such units are suitable for permanent residential occupancy and in compliance with the City Codes.

Nothing in this Section shall cause to limit the number of inventory homes (pre-sale, spec homes) that may be constructed on the Property. Violation of this Section will also constitute a violation of the City Code of Ordinances, and the provisions of this Section may also be enforced as provided therein. Any Builder desiring to construct a model home pursuant to this Section, other than Developer, shall be provided a copy of this Section by the Developer if Builder is not the owner of the subject property on which the model home will be constructed and shall automatically be deemed to have agreed to the terms and conditions herein as a condition of the issuance of a building permit by the City even if they are not the owner or have not consented, in writing, to the term and conditions of this Section.

15.0 Representations of the Parties. The City and Developer hereby each represent and warrant to the other that it has the power and authority to execute, deliver and perform the terms and provisions of this Agreement and has taken all necessary action to authorize the execution, delivery and performance of this Agreement. This Agreement will, when duly executed and delivered by the City and Developer, constitute a legal, valid and binding obligation enforceable against the parties hereto. Upon acquisition of the Property by the Developer and the recording of this Agreement in the Public Records of Brevard County, Florida, the Agreement shall be a binding obligation upon the Property in accordance with the terms and conditions of this Agreement. Developer represents that it has voluntarily and willfully executed

this Agreement for purposes of binding himself and the Property to the terms and conditions set forth in this Agreement.

16.0 Successors and Assigns. This Agreement shall automatically be binding upon and shall inure to the benefit of the City and Developer and their respective successors and assigns. The terms and conditions of this Agreement similarly shall be binding upon the Property and shall run with title to the same upon being duly recorded against the Property by the City.

17.0 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

18.0 Amendments. This Agreement shall not be modified or amended except by written agreement duly executed by both parties hereto (or their successors or assigns) and approved by the City Council.

19.0 Entire Agreement; Exhibits; Conflicts. This Agreement, the Preceding Agreement and Stipulated Settlement Agreement and all attached exhibits thereto supersede any other agreement, oral or written, regarding the development of the Property and contain the entire agreement between the City and Developer as to the subject matter hereof. The Exhibits attached hereto and referenced herein are hereby fully incorporated herein by this reference. To the extent that a conflict exists between provisions of this Agreement and the Preceding Agreement, the conflicting provisions of this Agreement shall apply. However, to the extent a conflict exists between the provisions of this Agreement and the Stipulated Settlement Agreement, the conflicting provisions of the Stipulated Settlement Agreement shall apply.

20.0 Severability. If any provision of this Agreement shall be held to be invalid or unenforceable to any extent by a court of competent jurisdiction, the same shall not affect in any respect the validity or enforceability of the remainder of this Agreement.

21.0 Effective Date. This Agreement shall become effective upon approval by the City Council and execution of this Agreement by both parties hereto.

22.0 Recordation. Upon full execution by the Parties and the closing required by Section 4.0 of this Agreement, this Agreement shall be recorded in the Public Records of Brevard County, Florida by the City.

23.0 Relationship of the Parties. The relationship of the Parties to this Agreement is contractual and Developer and any Builder described in Section 13.0 are independent contractors and not an agent of the City. Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the Parties or any such Builder, and neither party nor Builder is authorized to, nor shall either party act toward third persons or the public in any manner, which would indicate any such relationship with the other.

24.0 Sovereign Immunity. Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00).

25.0 City's Police Power. Developer agrees and acknowledges that the City hereby reserves all police powers granted to the City by law. In no way shall this Agreement be construed as the City bargaining away or surrendering its police powers.

26.0 Interpretation. The parties hereby agree and acknowledge that they have both participated equally in the drafting of this Agreement and no party shall be favored or disfavored regarding the interpretation to this Agreement in the event of a dispute between the parties.

27.0 Third-Party Rights. This Agreement is not a third-party beneficiary contract and shall not in any way whatsoever create any rights on behalf of any third party.

28.0 Specific Performance. Strict compliance shall be required with each and every provision of this Agreement. The Parties agree that failure to perform the obligations provided by this Agreement shall result in irreparable damage and that specific performance of these obligations may be obtained by a suit in equity.

29.0 Attorney's Fees. In connection with any arbitration or litigation arising out of this Agreement, each party shall be responsible for their own attorney's fees and costs.

30.0 Development Permits. Nothing herein shall limit the City's authority to grant or deny any development permit applications or requests subsequent to the Effective Date of this Agreement. The failure of this Agreement to address any particular City, County, State and/or Federal permit, condition, term or restriction shall not relieve Developer or the City of the necessity of complying with the law governing said permitting requirement, condition, term or restriction. Without imposing any limitation on the City's police powers, the City reserves the right to withhold, suspend or terminate any and all certificates of occupancy for any building, trailer, structure or unit if Developer is in breach of any term and condition of this Agreement.

31.0 Default. Failure by either party to perform each and every one of its obligations hereunder shall constitute a default, entitling the non-defaulting party to pursue whatever remedies are available to it under Florida law or equity including, without limitation, an action for specific performance and/or injunctive relief. Prior to any party filing any action or exercising any remedy or right expressly provided in this Agreement as a result of a default

under this Agreement, the non-defaulting party shall first provide the defaulting party with written notice of said default. Upon receipt of said notice, the defaulting party shall be provided a forty-five (45) day (or such other time mutually agreed to in writing by the Parties) opportunity in which to cure the default to the reasonable satisfaction of the non-defaulting party prior to filing said action.

32.0 Termination. Except as expressly provided in this Agreement, this Agreement may only be terminated by mutual written consent of the Parties. If the Parties terminate this Agreement and the Agreement was recorded in the Official Records of Brevard County, the City shall record a notice of termination against the Property in the Official Records of Brevard County, Florida.

33.0 Indemnification and Hold Harmless. Developer shall be solely responsible for designing, permitting, constructing, operating and maintaining this Project. As such, in consideration of the rights and benefits afforded to and accepted by the Developer hereunder, Developer hereby agrees to indemnify, release, and hold harmless the City and its councilmembers, employees and attorneys from and against all claims, losses, damages, personal injuries (including, but not limited to, death), or liability (including reasonable attorney's fees and costs through all appellate proceedings), directly or indirectly arising from, out of, or caused by Developer and Developer's contractor's and subcontractor's performance of design, permit and construction activities in furtherance of constructing the Project under this Agreement and the operation and maintenance of the Project thereafter. This indemnification shall survive the termination of this Agreement.

34.0 Force Majeure. The Parties agree that in the event that the failure by either party to accomplish any action required hereunder within a specified time period ("Time Period") constitutes a default under the terms of this Agreement and, if any such failure is due to any unforeseeable or unpredictable event or condition beyond the control of such party, including, but not limited to, acts of God, acts of government authority (other than the City's own acts), acts of public enemy or war, riots, civil disturbances, power failure, shortages of labor or materials, injunction or other court proceedings beyond the control of such party, severe adverse weather conditions or a United States economic recession declared by the National Bureau of Economic Research that temporarily makes it commercially impractical for Developer to complete the construction of the Project and sell the required residential homes ("Uncontrollable Event"), then, notwithstanding any provision of this Agreement to the contrary except as expressly provided below, that failure shall not constitute a default under this Agreement and any Time Period proscribed hereunder shall be extended by the amount of time that such party was unable to perform solely due to the Uncontrollable Event. The impacted party shall give notice to the other party, stating the period of time the occurrence is expected to continue, and he extended time period shall be agreed to in writing by the Parties and said agreement shall not be unreasonably withheld by either party. The impacted party shall use diligent efforts to end the failure or delay and ensure the effects of such force majeure event are minimized. The impacted party shall resume the performance of its obligations as soon as reasonably practicable after the removal of the cause. A force majeure event shall not excuse the Developer's requirement to

provide and maintain in effect a letter of credit under Section 9.0 of this Agreement or a performance and maintenance bond required by City Code. In addition, a United States economic recession force majeure event shall not excuse Developer from completing the Final Plans in accordance with the time periods required by Section 8.0 of this Agreement. The Parties agree that the provisions of Section 252.363, Florida Statutes do not apply to this Agreement or are hereby waived to the extent that such provisions are deemed to apply. Notwithstanding the aforesaid, the Parties may extend any Time Period as expressly provided elsewhere in this Agreement or as otherwise mutually agreed to in writing.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seal on the date first above written.

CITY OF COCOA

By: _____
Jake Williams Jr., Mayor

ATTEST:

By: _____
Carie Shealy, MMC, City Clerk

APPROVED AS TO FORM AND LEGALITY
For the use and reliance of the City of Cocoa, Florida only.

Date: 7.10.2019
By: _____
Anthony A. Garganese, City Attorney for the City of Cocoa, Florida

CITY SEAL

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness

Samantha Johnson
Printed Name of Witness

Signature of Witness

Janice Cremarosa
Printed Name of Witness

VIRGIN TRAINS USA FLORIDA, LLC

Print name and title: Patrick Goddard
President
Virgin Trains USA

Date: 6/14/19

STATE OF Florida
COUNTY OF Miami-Dade

The foregoing instrument was acknowledged before me this 14th day of June, 2019, by Patrick Goddard the President of Virgin Trains USA a Florida LLC. He is personally known to me or produced _____ as identification.

(NOTARY SEAL)

JANICE LEON
MY COMMISSION # GG 263937
EXPIRES: February 1, 2023
Bonded Thru Notary Public Underwriters

(Notary Public Signature)

Janice Leon
(Print Name)

Notary Public, State of Florida
Commission No.: GG263937
My Commission Expires: 02/01/23

DEVELOPER IS HEREBY ADVISED THAT SHOULD DEVELOPER FAIL TO FULLY EXECUTE, AND DELIVER TO THE CITY, THIS AGREEMENT WITHIN THIRTY (30) DAYS FROM THE DATE THAT THE CITY COUNCIL APPROVES THIS AGREEMENT, THIS AGREEMENT SHALL AUTOMATICALLY BE DEEMED NULL AND VOID.

Exhibits:

A – Legal Description
B – Two Alternative Concept Plans

EXHIBIT "A"

Legal Description

PARCEL 1

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 329.44 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line a distance of 2266.28 feet; thence departing said North line of Section 10, South 00 degrees 32 minutes 12 seconds East, a distance of 2235.09 feet to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), along said existing North right of way line a distance of 454.64 feet; thence North 87 degrees 19 minutes 06 seconds West, a distance of 638.49 feet, to a point of curvature of a curve concave to the Northeast, having a radius of 900.00 feet a central angle of 31 degrees 18 minutes 50 seconds (Calculated measurement) 31 degrees 18 minutes 48 seconds (Deed), thence Northwesterly along the arc of said curve a distance of 491.88 (calculated measurement) 491.87 (Deed) feet; thence North 56 degrees 04 minutes 39 seconds West (Calculated measurement) North 56 degrees 00 minutes 19 seconds West (Deed), a distance of 398.70 (Calculated measurement) 398.75 (Deed) feet to a point of curvature of a non-tangent curve concave to the North having a radius of 969.79 feet, a central angle of 37 degrees 46 minutes 38 seconds, thence Northwesterly along the arc of said curve a distance of 639.42 feet, to a point on the East right of way line of State Road No. 9 (Interstate 95); thence North 00 degrees 11 minutes 53 seconds West, along said East right of way line of State Road No. 9 (Interstate 95), a distance of 566.36 feet; thence North 01 degrees 55 minutes 04 seconds West, a distance of 300.93; thence North 01 degrees 20 minutes 38 seconds West, a distance of 476.50 feet to the POINT OF BEGINNING.

LESS AND EXCEPT THE AREA FOR BORROW PIT NO. 19 AND HAUL ROAD AS SET FORTH IN CIRCUIT COURT MINUTE BOOK 57, PAGE 479, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, OTHER THAN THE REVERSIONARY INTEREST, DESCRIBED AS FOLLOWS:

BORROW PIT NO. 19

A parcel of land in the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, described as follows:

Commence on the North boundary of said Section 10, at a point 150 feet East from the Northwest corner thereof, run thence South 00 degrees 12 minutes 38 seconds East 50 feet; thence North 89 degrees 59 minutes 22 seconds East, 499.83 feet to the Northwest corner of Borrow Pit No. 19 and the POINT OF BEGINNING; continue thence North 89 degrees 59 minutes 22 seconds East 600 feet; thence South 00 degrees 00 minutes 38 seconds East 550 feet; thence South 89 degrees 59 minutes 22 seconds West 600 feet; thence North 00 degrees 00 minutes 38 seconds West 550 feet to the POINT OF BEGINNING.

AND

HAUL ROUTE FOR BORROW PIT NO. 19

That part of the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, lying South and within 50 feet of a line described as follows:

Begin at the Northwest corner of Borrow Pit No. 19 as described above, run thence South 89 degrees 59 minutes 22 seconds West 499.83 feet to the end of said line as herein described.

PARCEL 2

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2595.72 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line of Section 10 a distance of 70.51 feet, to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet; thence departing said North line South 00 degrees 32 minutes 12 seconds East, a distance of 2404.54 feet, to a point on a curve on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence along said existing North right of way line and along said curve that is concave to the South, having a radius of 5879.58 feet, a central angle of 15 degrees 41 minutes 33 seconds; thence Westerly, along the arc of said curve, a distance of 1610.32 feet; thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), a distance of 404.03 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2235.09 feet, to the POINT OF BEGINNING.

PARCEL 3

A parcel of land lying in the North Half Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2666.23 feet to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet, to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 56 seconds East, along said North line of said Section 10, a distance of 738.58 feet to the Northeast corner of Section 10; thence South 00 degrees 32 minutes 12 seconds East, along the East line of said Section 10, a distance of 2602.18 feet, to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence North 74 degrees 59 minutes 21 seconds West, along said existing North right of way line, a distance of 693.63 feet, to a point of curvature of a curve concave to the South, having a radius of 5879.58 feet, a central angle of 00 degrees 42 minutes 35 seconds, thence Westerly, along the arc of said curve, a distance of 72.84 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2404.54 feet, to the POINT OF BEGINNING.

PARCEL 4

A parcel of land being the North 290 feet of the Southwest One Quarter of Section 12, Township 24 South, Range 35 East, Tallahassee Base Meridian, Brevard County, Florida, lying West of the Westerly right of way of Grissom Parkway, being part of the lands described in Official Records Book 549, Page 354 and being more particularly described by meets and bounds as follows:

Commence at a concrete monument occupying the Northwest corner of the Southwest One-Quarter of aforesaid Section 12; thence South 00 degrees 15 minutes 49 seconds East, along the West line of the Southwest One Quarter, a distance of 290.01 feet; thence South 89 degrees 54 minutes 34 seconds East, parallel to and 290.00 feet South of the North line of the Southwest One-quarter, a distance of 501.02 feet to a point on the Westerly right of way line of Grissom Parkway, said point lying on a radial circular curve, concave to the Northwest, having a radius of 1705.02 feet and a central angle of 11 degrees 38 minutes 02 seconds; thence Northwesterly, along said Westerly right of way line and the arc of said curve a distance of 346.20 feet (chord bearing North 32 degrees 51 minutes 07 seconds West) to the North line of the Southwest One-Quarter; thence North 89 degrees 54 minutes 34 seconds West, along said North line, a distance of 314.89 feet to the POINT OF BEGINNING.

LESS AND EXCEPT that portion conveyed to Brevard County Board of County Commissioners recorded in Official Records Book 2923, Page 1070; and in Official Records Book 2923, Page 1073, all of the Public Records of Brevard County, Florida.

PARCEL 5

The West 318 feet of the South Half of the South Half of the South Half of the North Half, LESS the North 30 feet for road and LESS the South 100 feet and the West 100 feet for canal, Section 11, Township 24 South, Range 35 East, Brevard County, Florida. Also known as Tract 6, Block 16, CANAVERAL GROVES SUBDIVISION, according to the Map thereof, as recorded in Survey Book 2, Page 621, Brevard County, Florida.

EXHIBIT
B
Page 1 of 2

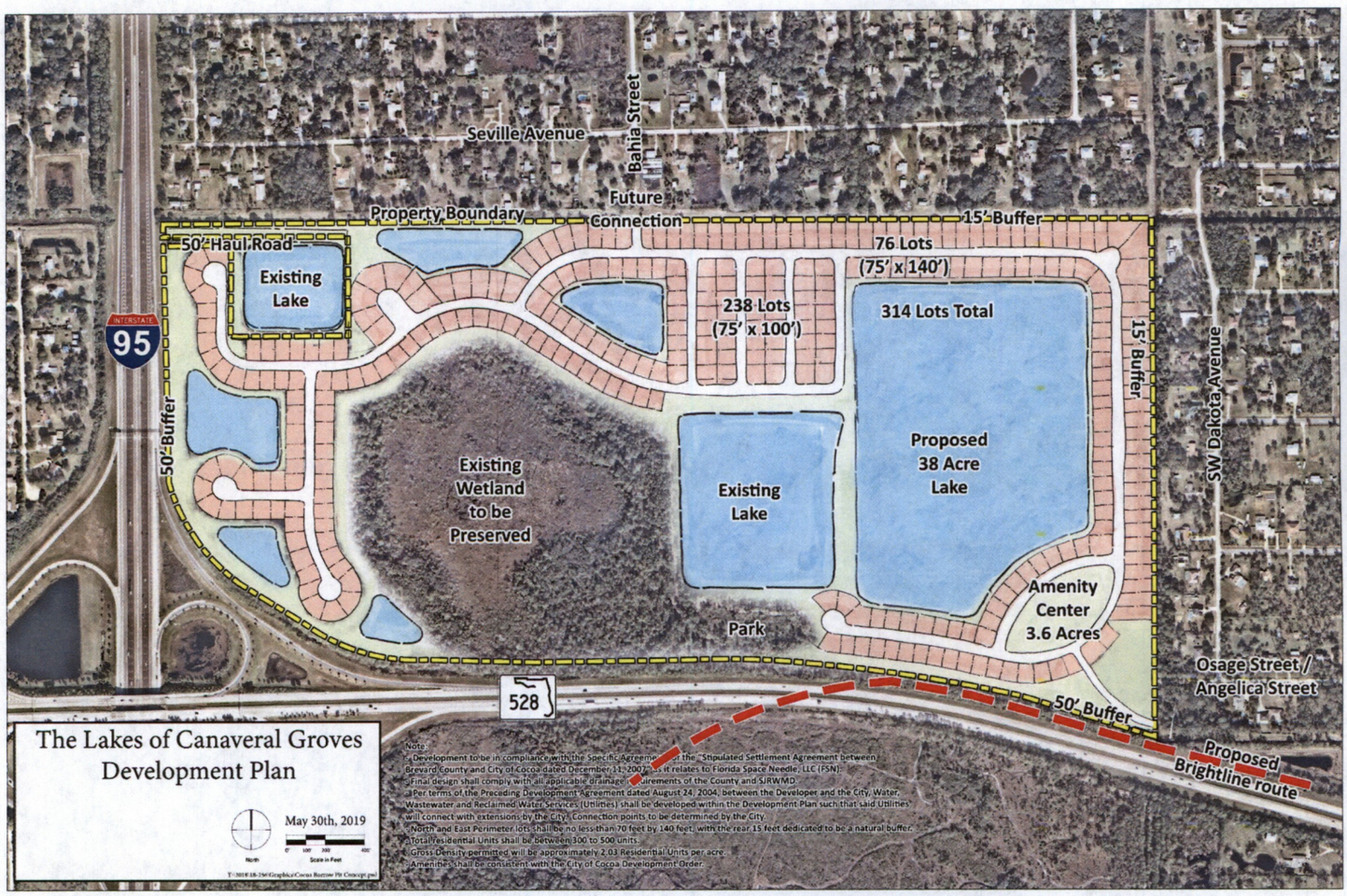
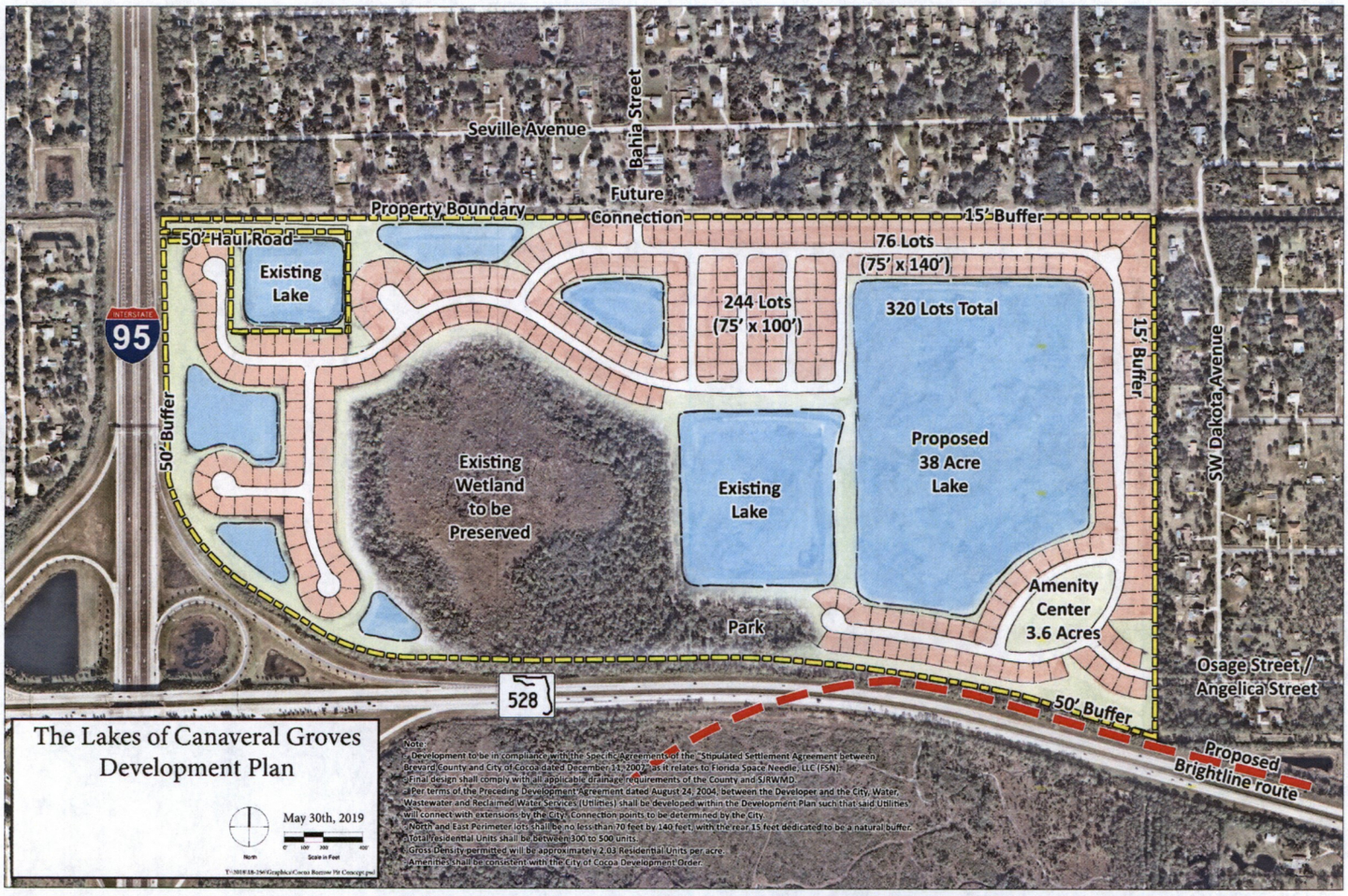


EXHIBIT
B
Page 2 of 2



The Lakes of Canaveral Groves Development Plan

May 30th, 2019

North

Scale in Feet

T:\2018\18-256\Graphics\Cocoa Burrow Plt Concept.psd

Note:

- Development to be in compliance with the Specific Agreement of the "Stipulated Settlement Agreement between Brevard County and City of Cocoa dated December 11, 2002, as it relates to Florida Space Needle, LLC (FSN)."
- Final design shall comply with all applicable drainage requirements of the County and SJRWMD.
- Per terms of the Preceding Development Agreement dated August 24, 2004, between the Developer and the City, Water, Wastewater and Reclaimed Water Services (Utilities) shall be developed within the Development Plan such that said Utilities will connect with extensions by the City. Connection points to be determined by the City.
- North and East Perimeter lots shall be no less than 70 feet by 140 feet, with the rear 15 feet dedicated to be a natural buffer.
- Total residential Units shall be between 300 to 500 units.
- Gross Density permitted will be approximately 2.03 Residential Units per acre.
- Amenities shall be consistent with the City of Cocoa Development Order.

AGREEMENT FOR UTILITIES
GENERAL CONSTRUCTION CONTRACTOR

THIS AGREEMENT is made and entered into this 9th day of November, 2020, by and between the **CITY OF COCOA, FLORIDA**, a Florida Municipal Corporation, hereinafter referred to as "City", located at 65 Stone Street, Cocoa 32922, and **ATLANTIC DEVELOPMENT OF COCOA, Inc.** 2185 West King Street, Cocoa, Florida 32926, hereinafter referred to as "Utility Contractor".

WITNESSETH:

WHEREAS, City wishes to obtain underground utility services on a continuing basis; and

WHEREAS, the City has followed the selection and negotiation process set forth in the Florida's Consultants' Competitive Negotiation Act, Section 287.055, *Florida Statutes;* and

WHEREAS, Utility Contractor participated in the selection and negotiation process and Utility Contactor was one of several contractors chosen by the City Council at a duly held meeting on October 27, 2020 to perform future services on an as needed basis; and

WHEREAS, Utility Contractor is willing to provide such underground utility services to the City under the terms and conditions stated herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties covenant and agree as follows:

1.0 TERM AND DEFINITIONS

1.1 Unless sooner terminated by either Party pursuant to the terms and conditions herein, this Agreement shall terminate on the third (3rd) anniversary of the Effective Date. This Agreement may be renewed by mutual agreement of the Parties for a maximum of two (2) separate two (2) year renewal terms.

1.2 The terms and conditions of any Task Authorization, as described in Section 2 hereof, shall be as set forth in such Task Authorization. Any Task Authorization in effect at the termination of this Agreement shall remain in effect until completion of said Task Authorization, and all of the terms and conditions of this Agreement shall survive until completion of all Task Authorizations.

1.3 Definitions. The following words and phrases used in this Agreement shall have the following meaning ascribed to them unless the context clearly indicates otherwise:

A. "Agreement" or "Contract" shall be used interchangeably and shall refer to this Agreement, as amended from time to time, which shall constitute authorization for the Utility Contractor to provide the construction services approved by Task Authorization by the City.

B. "Effective Date" shall be the date on which the last signatory hereto shall execute this Agreement, and it shall be the date on which this Agreement shall go into effect. The Agreement shall not go into effect until said date.

C. "Utility Contractor" shall mean **Atlantic Development of Cocoa Inc.,** and its principals, employees, resident project representatives (and assistants).

D. "Public Record" shall have the meaning given in Section 119.011(1), *Florida Statutes*.

E. "Reimbursable Expenses" shall mean the actual expenses incurred by Utility Contractor or Utility Contractor's independent professional associates and consultants which are directly related to travel and subsistence at the rates, and under the requirements of, Section 112.061, Florida Statutes, or any other actual expenses the City agrees to reimburse by Task Authorization.

F. "Work" or "Services" shall be used interchangeably and shall include the performance of the work agreed to by the parties in a Task Authorization.

G. "Task Authorization" shall mean a written document approved by the parties pursuant to the procedure outlined in paragraph 2.0 of this Agreement, and any amendments thereto approved pursuant to the procedures outlined in paragraph 3.0 herein, which sets forth the Work to be performed by Utility Contractor under this Agreement.

2.0 DESCRIPTION OF SERVICES

2.1 The City shall make request of Utility Contractor to perform underground utility services on a "Task" basis. The City will communicate with Utility Contractor, verbally or in writing, a general description of the task to be performed. The Utility Contractor will generate a detailed Scope of Work document, prepare a Schedule, add a Not-to-Exceed-Budget or Lump Sum Fee to accomplish the task, and send the thus developed "Task Proposal" to the City. If a site visit by Utility Contractor is needed to generate the scope document, Utility Contractor shall request approval prior to visiting the site. The City will review the Task Proposal, and if the description is mutually acceptable, the parties will enter into a written "Task Authorization". The Scope of Services generally to be provided by the Utility Contractor through a Task Authorization may include any phases of utility construction. These phases are more clearly defined in the attached **Exhibit "A".** Nothing herein shall be construed to guarantee that Utility Contractor will be assigned a Task.

2.2 The City will issue a Notice to Proceed to the Utility Contractor in the form of a City purchase order. Upon receipt of the signed Task Authorization and a written Notice to Proceed from the City, the Utility Contractor shall perform the services set forth in the Task Authorization.

2.3 For each Task Authorization in excess of $25,000.00, Utility Contractor shall supply a materials, performance and payment bond(s) in accordance with Florida law and in substantially in conformance with the form attached to the Agreement **Exhibit "B"** and

approved by the City Attorney. The materials, performance, and payment amounts shall be in an amount equal to the total Contract Price for the Work required by the Task Authorization. The issuance of bonds required under this Agreement shall not relieve Utility Contractor of any liability under the Agreement and any applicable Task Authorization. Utility Contractor shall remain jointly and severally liable with any surety issuing a bond under the Task Authorization. The premium for such bonds shall be paid by the Utility Contractor.

3.0 CHANGES IN THE SCOPE OF WORK

3.1 City may make changes in the Services at any time by giving written notice to Utility Contractor. If such changes increase (additional services) or decrease or eliminate any amount of work, City and Utility Contractor will negotiate any change in total cost or schedule modifications. If the City and Utility Contractor approve any change(s), the Task Authorization will be modified in writing to reflect the change(s); and Utility Contractor shall be compensated for said service(s) in accordance with the terms of Article 5.0 herein. All change orders shall be authorized in writing by City's and Utility Contractor's designated representative.

3.2 All of City's said Task Authorizations and amendments thereto shall be performed in strict accordance with the terms of this Agreement insofar as they are applicable.

4.0 SCHEDULE; LIQUIDATED DAMAGES

4.1 Utility Contractor shall perform services in conformance with the mutually agreed schedule set forth in the negotiated Task Authorization. The parties acknowledge that the agreed upon schedule provided in this Section includes consideration of adverse weather conditions common to Central Florida including the possibility of hurricanes and tropical storms. Utility Contractor shall complete all of said services in a timely manner and will keep City apprised of the status of work on at least a weekly basis or as otherwise reasonably requested by the City. Should Utility Contractor fall behind the agreed upon schedule, it shall employ such resources so as to comply with the agreed-upon schedule.

4.2 No extension for completion of services shall be granted to Utility Contractor without City's prior written consent, except as provided in Sections 3.1 and 20.1 herein.

4.3 Unless otherwise expressly provided in the Task Authorization, City and Utility Contractor recognize that time is of the essence of this Agreement and that City will suffer financial loss if the Work required by a Task Authorization is not substantially complete within the time specified therein, plus any extensions thereof allowed in accordance with a written change order. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by City if the Work is not substantially completed on time. Accordingly, instead of requiring any such proof, City and Utility Contractor agree that as liquidated damages for delay (but not as a penalty) Utility Contractor shall pay City five hundred dollars ($500.00) per day for each day that expires after the time specified in the applicable Task Authorization for both substantial and final completion until the work is completed within said time period, and that City has paid to the Utility Contractor the consideration of ten ($10.00) dollars as consideration for this provision.

The liquidated damages shall be payable in addition to any excess expenses or costs payable by the Utility Contractor to the City under this Agreement and applicable Task Authorization, and shall not preclude the recovery of damages by the City under other provisions of the Agreement, except claims related to Utility Contractor's delays in substantial completion. The City's right to receive liquidated damages shall in no manner affect the City's right to terminate the Agreement or any applicable Task Authorization, as provided in this Agreement or elsewhere in the Task Authorization. The City's exercise of the right to terminate shall not release the Utility Contractor from the obligation to pay said liquidated damages.

When the City reasonably believes (i) that substantial completion will be inexcusably delayed; or (ii) that the Utility Contractor will fail to achieve final completion by the date of final completion, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Utility Contractor the daily amount specified for liquidated damages for each calendar day of the unexcused delay. If and when the Utility Contractor overcomes the delay in timely achieving substantial completion or final completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Utility Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.0 METHODS OF PAYMENT FOR SERVICES AND EXPENSES OF UTILITY CONTRACTOR

5.1 General Services. For basic and additional Services performed by Utility Contractor's principals, employees, and resident project representatives (and assistants) pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Utility Contractor an amount equal to that agreed upon by the parties for a particular Task Authorization.

5.2 Additional Services Performed by Professional Associates and Consultants. For additional Services and Reimbursable Expenses of independent professional associates and consultants employed by Utility Contractor to render additional Services pursuant to paragraphs 2.0 and 3.0, the City agrees to pay the Utility Contractor an amount equal to that billed Utility Contractor by the independent professional associates and consultants multiplied by a factor of 1.10. Prior to payment by the City, the Utility Contractor shall submit to the City a copy of any written invoice received by Utility Contractor from all independent professional associates and consultants which clearly evidences the amount billed by the independent professional associates and consultants for additional Services and any Reimbursable Expenses.

5.3 Witness Services. For witness or expert services rendered by Utility Contractor's principals, employees, resident project representatives (and assistants), and independent professional associates and consultants on behalf of the City in any litigation, arbitration, or other legal or interested administrative proceeding in which the City is a named interested party, City agrees to pay the Utility Contractor or independent professional associate or consultant, which is used as a witness or expert, an amount equal to that agreed upon by the party for a particular Task Authorization.

5.4 Reimbursable Expenses. In addition to payments provided in paragraphs 5.1, 5.2 and 5.3 above, City agrees to pay Utility Contractor the actual cost of all Reimbursable Expenses incurred in connection with any Task Authorization.

5.5 Payment. Upon receipt of a proper invoice from Utility Contractor, the City agrees to pay the Utility Contractor the invoice amount providing said amount accurately reflects the terms and conditions of this Agreement and any applicable Task Authorization. Invoices may only be submitted on a monthly basis unless otherwise agreed by the City. Unless otherwise agreed in writing by the City, there shall be no other compensation paid to the Utility Contractor and its principals, employees, resident project representatives (and assistants), and independent professional associates and consultants in the performance of Work under this Agreement. The City agrees to make all payments due within thirty (30) days of receipt of a proper invoice delivered by Utility Contractor.

5.6 Witholding Payments. Progress payments may be withheld if:

a. Work is found defective and not remedied;

b. Utility Contractor does not make prompt and proper payments to subcontractors;

c. Utility Contractor does not make prompt and proper payments for labor, materials, or equipment furnished him;

d. Another Contractor is damaged by an act for which Utility Contractor is responsible;

e. Claims or liens are filed on the job; or

f. In the opinion of the City, Utility Contractor's work is not progressing satisfactorily.

5.7 **Final Payment.** The City shall withhold up to 5% of the Contract Price set forth in any Task Authorization throughout the subject project in accordance with the Local Government Prompt Payment Act ("Act"). City shall promptly make payment to the Utility Contractor unless the City has grounds, under the Act, for withholding the payment of the retainage. The remaining retainage amount withheld shall be released with the Final Payment after the issuance of the Final Completion Certificate. City shall make final payment to Utility Contractor within thirty (30) days after the work is fully and properly completed, if the contract has been fully and timely performed, but subject to the condition that final payment shall not be due until Utility Contractor has delivered to CITY a complete release of liens arising out of the Task Authorization, or receipt of releases of lien fully covering all labor, materials and equipment for which a lien could be filed, or in the alternative a bond satisfactory to City indemnifying him against such claims.

By making payments, City does not waive claims including but not limited to those relating to:

a. Faulty work appearing after substantial completion has been granted;

b. Work that does not comply with the Task Authorization and this Agreement;

c. Outstanding claims of liens; or

d. Failure of Utility Contractor to comply with any special guarantees required by the Agreement and applicable Task Authorization.

6.0 RIGHT TO INSPECTION

6.1 City or its affiliates shall at all times have the right to review or observe the services performed by Utility Contractor. The City shall be given free access to the worksite at all times during work preparation and progress. The City's Project Manager is not obligated to make exhaustive or continuous onsite inspections to perform his or her duties of checking and reporting on work progress, and any such inspections shall not waive City's claim regarding defective work by Utility Contractor.

6.2 No inspection, review, or observation shall relieve Utility Contractor of its responsibility under this Agreement. The City will not be responsible for the means of construction, or for the sequences, methods and procedures used therein, or for the Utility Contractor's failure to perform the work in accordance with the applicable Task Authorization and this Agreements.

7.0 PROGRESS MEETING

7.1 City's Project Manager may hold periodic progress meetings on a monthly basis, or more frequently if required by the City, during the term of work entered into under this Agreement. Utility Contractor's Project Manager and all other appropriate personnel shall attend such meetings as designated by the City's Project Manager. The City's review, inspection, or approval of any Work, applications for payment, or other submittals shall be solely for the purpose of determining whether the same are generally consistent with the City's scope and requirements for the Project. No review, inspection, or approval by the City of such Work or documents shall relieve the Utility Contractor of its responsibility for the performance of its obligations under the applicable Task Authorization or the accuracy, adequacy, fitness, suitability, or coordination of the Work. Approval by any governmental or other regulatory agency or other governing body of any Work, design document, or construction document shall not relieve Utility Contractor of responsibility for the performance of its obligations under this Agreement and applicable Task Authorization. Payment by the City pursuant to the this Agreement shall not constitute a waiver of any of the City's rights under this Agreement or at law, and the Utility Contractor expressly accepts the risk that defects in its performance, if any, may not be discovered until after payment, including final payment, is made by the City. Notwithstanding the foregoing, prompt written notice shall be given by the City or City Project Manager to the Utility Contractor if the City becomes aware of any fault or defect in the subject Project or non-conformance with this Agreement and applicable Task Authorization. Furthermore, the City shall not have control or charge of construction means, methods,

techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, nor shall the Utility Contractor, for any of the foregoing purposes, be deemed the agent of the City.

8.0 RESPONSIBILITIES OF CONTRACTOR The Utility Contractor's duties and rights in connection with any Task Authorization issued by the City herein are as follows:

8.1 Responsibility for Supervision and Construction. Utility Contractor shall be solely responsible for all construction under the Task Authorization, including the techniques, sequences, procedures and means, for the coordination of all work. Utility Contractor shall supervise and direct the work, and give it all attention necessary for such proper supervision and direction.

8.2 Discipline and Employment. Utility Contractor shall maintain at all times strict discipline among his employees, and he agrees not to employ for work on the project any person unfit or without sufficient skill to perform the job for which he was employed.

8.3 Furnishing of Labor, Materials, etc. Utility Contractor shall provide and pay for all labor, materials and equipment, including tools, construction equipment and machinery, utilities, including water, transportation, and all other facilities and work necessary for the proper completion of work on the project in accordance with this Agreement and Task Authorization.

8.4 Payment of Taxes: Procurement of Licenses and Permits. Utility Contractor shall secure all licenses and permits necessary for proper completion of the work, paying the fees thereof. Utility Contractor warrants that it (and subcontractors or tradesmen, if authorized in the Task Authorization) hold or will secure all trade or professional licenses required by law for the Utility Contractor to undertake the Work required by the Task Authorization.

8.5 Guarantee. The Utility Contractor hereby guarantees the Work to the full extent provided in the Task Authorization and any applicable Plans, Specifications, General Conditions, Special Conditions and other contract documents. The Utility Contractor shall remove, replace and/or repair at its own expense and at the convenience of the City any faulty, defective or improper Work, materials or equipment discovered within one (1) year from the date of the acceptance of the project as a whole by the City or for such longer period as may be provided in the applicable Task Authorization, Plans, Specifications, General Conditions, Special Conditions or other contract documents. Without limiting the generality of the foregoing, the Utility Contractor warrants to the City, that all materials and equipment furnished under this Agreement and Task Authorizations will be of first class quality and new, unless otherwise required or permitted by the applicable Task Authorization, that the Work performed pursuant to this Agreement will be free from defects and that the Work will strictly conform with the requirements of the Task Authorization. Work not conforming to such requirements, including substitutions not properly approved and authorized, shall be considered defective. All warranties contained in this Agreement and in the Task Authorization shall be in addition to and not in limitation of all other warranties or remedies required and/or arising pursuant to applicable law. Furthermore, Utility Contractor will provide written guarantee for work and materials for a minimum of one (1) calendar year after acceptance by City unless a longer time period is

required by a Task Authorization. The one (1) period is not a limitation upon manufacturer warranties or Utility Contractor's payment and performance Bond(s).

8.6 Preparation/Sufficiency of Site. The Utility Contractor shall, among other things, and as applicable: (i) visit and thoroughly inspect the Project Sites and any structure(s) or other man-made features to be modified and become familiar with local conditions under which the Project will be constructed and operated; (ii) familiarize itself with any provided survey, including the location of all existing buildings, utilities, conditions, streets, equipment, components, and other attributes having or likely to have an impact on the Project; (iii) familiarize itself with the City's layout and design requirements, conceptual design objectives, and budget for the Projects; (iv) familiarize itself with pertinent Project dates, including the Project Schedule; (v) review and analyze all Project geotechnical, hazardous substances, structural, chemical, electrical, mechanical, and construction materials tests, investigations, and recommendations; and (vi) gather any other information necessary for a thorough understanding of the Project. If the Project involve modifications to any existing structure(s) or other man-made feature(s) on the Project Site, the Utility Contractor shall also review all as-built and record drawings, plans, and specifications of which the Utility Contractor has been informed by the City, and shall thoroughly inspect the existing structure(s) and man-made feature(s) to identify existing deficiencies and ascertain the specific locations of pertinent structural components. Claims by the Utility Contractor resulting from its failure to familiarize itself with the Project Sites or pertinent documents shall be deemed waived.

8.7 Safety. Utility Contractor shall be solely and absolutely responsible and assume all liability for the safety and supervision of its principals, employees, resident project representatives (and assistants) while performing Services provided hereunder.

9.0 REASONABLE ACCESS

9.1 During the term of this Agreement, City shall grant Utility Contractor reasonable access to the City's premises, records, and files for purposes of fulfilling its obligations under this Agreement.

10.0 INSURANCE

10.1 Liability Amounts. During the term of this Agreement, Utility Contractor shall be responsible for providing the types of insurance and limits of liability as set forth below.

A. Professional Liability: If professional services are rendered under any Task Authorization, proof of professional liability insurance shall be provided to the City for the minimum amount of $1,000,000 as the combined single limit for each occurrence.

B. The Utility Contractor shall maintain comprehensive general liability insurance in the minimum amount of $2,000,000 as the combined single limit for each occurrence to protect the Utility Contractor from claims of property damages which may arise from any Services performed under this Agreement whether such Services are performed by the Utility Contractor or by anyone directly employed by or contracting with the Utility Contractor.

C. The Utility Contractor shall maintain comprehensive automobile liability insurance in the minimum amount of $1,000,000 combined single limit bodily injury and minimum $50,000 property damage as the combined single limit for each occurrence to protect the Utility Contractor from claims for damages for bodily injury, including wrongful death, as well as from claims from property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the Utility Contractor or by anyone directly or indirectly employed by the Utility Contractor.

D. Utility Contractor shall maintain, during the life of this Agreement, adequate Workers' Compensation Insurance and Employers' Liability Insurance in at least such amounts as are required by law for all of its employees performing Work for the City pursuant to this Agreement.

10.2 Special Requirements. Current, valid insurance policies meeting the requirements herein identified shall be maintained during the term of this Agreement. Renewal certificates shall be sent to the City thirty (30) days prior to any expiration date. There shall also be a 30-day advance written notification to the City in the event of cancellation or modification of any stipulated insurance coverage. **With the exception of any required professional insurance policy hereunder, the City shall be an additional named insured on all stipulated insurance policies as its interest may appear, from time to time.**

10.3 Independent Associates and Consultants. All independent associates and consultants employed by Utility Contractor to perform any Services hereunder shall fully comply with the insurance provisions contained in this paragraph.

11.0 COMPLIANCE WITH LAWS AND REGULATIONS

11.1 Utility Contractor shall comply with all requirements of federal, state, and local laws, rules, regulations, standards, and/or ordinances applicable to the performance of Services under this Agreement.

12.0 REPRESENTATIONS

12.1 Utility Contractor represents that the Services provided hereunder shall conform to all requirements of this Agreement and any Task Authorization, shall be consistent with recognized and sound construction practices and procedures; and shall conform to the customary standards of care, skill, and diligence appropriate to the nature of the Services rendered.

12.2 Utility Contractor represents that all principals, employees, and other personnel furnishing such Services shall be qualified and competent to perform the Services assigned to them and that such guidance given by and the recommendations and performance of such personnel shall reflect their best professional knowledge and judgment.

13.0 GUARANTEE AGAINST INFRINGEMENT

13.1 Utility Contractor guarantees that all Services performed under this Agreement shall be free from claims of patent, copyright, and trademarks infringement. Notwithstanding

any other provision of this Agreement, Utility Contractor shall indemnify, hold harmless, and defend City, its officers, directors, attorneys, employees, agents assigns, and servants from and against any and all liability, including expenses, legal or otherwise, for actual or alleged infringement of any patent, copyright, or trademark resulting from the use of any goods, Services, or other item provided under this Agreement. Notwithstanding the foregoing, Utility Contractor may elect to provide non-infringing services.

14.0 DOCUMENTS

14.1 Public Records. Pursuant to Section 119.0701, Florida Statutes and other applicable public records laws, Utility Contractor agrees that any records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics or means of transmission, of Utility Contractor related, directly or indirectly, to the services provided to the City under this Agreement and made or received pursuant to law or ordinance or in connection with the transaction of official business by the City, may be deemed to be a public record, whether in the possession or control of City or the Utility Contractor. Said records, documents, transactions, writings, papers, letters, computerized information and programs, maps, books, audio or video tapes, films, photographs, data processing software, writings or other material(s), regardless of the physical form, characteristics or means of transmission of Utility Contractor are subject to the provisions of Chapter 119, Florida Statutes, and may not be destroyed without the specific written approval of the City's designated custodian of public records.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CITY'S CUSTODIAN OF PUBLIC RECORDS/CITY CLERK AT (321) 433-8484, 65 STONE STREET, COCOA, FLORIDA 32922.

Utility Contractor is required to and agrees to comply with public records laws. Utility Contractor shall keep and maintain all public records required by City to perform the services as agreed to herein. Utility Contractor shall provide the City, upon request from the CITY CLERK, copies of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law. Utility Contractor shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term. Upon completion of the Agreement, Utility Contractor shall transfer to City, at no cost, all public records in possession of the Utility Contractor, provided the transfer is requested in writing by the City Clerk. Upon such transfer, Utility Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. However, if the City Clerk does not request that the public records be transferred, the Utility Contractor shall continue to keep and maintain the public records upon completion of the Agreement and shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to City, upon request from the City Clerk, in a format that is compatible with the information technology systems of City. Should the City not possess public records relating to this Agreement which are requested to be inspected or copied

by the City or any other person, the City shall immediately notify Utility Contractor of the request and the Utility Contractor shall then provide such records to the City or allow the records to be inspected or copied within a reasonable time. If the Utility Contractor does not comply with a public records request, the City may enforce this Section to the extent permitted by law. Utility Contractor acknowledges that if the Utility Contractor does not provide the public records to the City within a reasonable time, the Utility Contractor may be subject to penalties under Section 119.10, Florida Statutes. The Utility Contractor acknowledges that if a civil action is filed against the Utility Contractor to compel production of public records relating to this Agreement, the court may assess and award against Utility Contractor the reasonable costs of enforcement, including reasonable attorney fees. All public records in connection with this Agreement shall, at any and all reasonable times during the normal business hours of the Utility Contractor, be open and freely exhibited to the City for the purpose of examination, audit or otherwise. Failure by Utility Contractor to grant such public access and comply with public records laws and/or requests shall be grounds for immediate unilateral cancellation of this Agreement by the City upon delivery of a written notice of cancellation. If the Utility Contractor fails to comply with this Section, and the City must enforce this Section, or the City suffers a third party award of attorney's fees and/or damages for violating Chapter 119, Florida Statutes, due to Utility Contractor failure to comply with this Section, the City shall collect from Utility Contractor prevailing party attorney's fees and costs, and any damages incurred by the City, for enforcing this Section against Utility Contractor. And, if applicable, the City shall also be entitled to reimbursement of all attorneys' fees and damages which the City had to pay a third party because of the Utility Contractor failure to comply with this Section. The terms and conditions set forth in this Section shall survive the termination of this Agreement.

14.2 Reuse of Documents. All documents, including but not limited to, drawings, specifications, and data, or programs stored electronically or otherwise, prepared by the Utility Contractor and its independent contractors and associates pursuant to this Agreement or related exclusively to the Services described herein may be reused by the City for any reason or purpose at anytime. However, the City agrees that the aforesaid documents are not intended or represented to be suitable for reuse by the City or others on any undertaking other than the Work outlined in this Agreement. Any reuse for an undertaking other than for the Work without verification or adoption by the Utility Contractor, or its independent contractors and associates if necessary, to specific purposes intended will be at the City's sole risk and without liability or legal exposure to the Utility Contractor.

14.3 The Utility Contractor acknowledges that the City is a Florida Municipal Corporation and subject to the Florida Public Records Law. Utility Contractor agrees that to the extent any document produced by Utility Contractor under this Agreement constitutes a Public Record, Utility Contractor shall comply with the Florida Public Records Law.

15.0 ASSIGNMENT

15.1 Utility Contractor shall not assign or subcontract this Agreement, any Task Authorization hereunder, or any rights or any monies due or to become due hereunder without the prior, written consent of City.

15.2 If upon receiving written approval from City, any part of this Agreement is subcontracted by Utility Contractor, Utility Contractor shall be fully responsible to City for all acts and/or omissions performed by the subcontractor as if no subcontract had been made.

15.3 If City determines that any subcontractor is not performing in accordance with this Agreement, City shall so notify Utility Contractor who shall take immediate steps to remedy the situation.

15.4 If any part of this Agreement is subcontracted by Utility Contractor, prior to the commencement of any Work by the subcontractor, Utility Contractor shall require the subcontractor to provide City and its affiliates with insurance coverage as set forth by the City.

16.0 INDEPENDENT CONTRACTOR

16.1 At all times during the term of this Agreement, Utility Contractor shall be considered an independent contractor and not an employee of the City.

17.0 TERMINATION; DEFAULT BY UTILITY CONTRACTOR AND CITY'S REMEDIES

17.1 The City reserves the right to revoke and terminate this Agreement and rescind all rights and privileges associated with this Agreement, without penalty, at any time with or without cause. Without limitation, the following shall be considered cause for terminating this Agreement and shall constitute a default hereunder:

17.2 Utility Contractor defaults in the performance of any material covenant or condition of this Agreement and does not cure such other default within thirty (30) calendar days after written notice from the City specifying the default complained of, unless, however, the nature of the default is such that it cannot, in the exercise of reasonable diligence, be remedied within thirty (30) calendar days, in which case the Utility Contractor shall have such time as is reasonably necessary to remedy the default, provided the Utility Contractor promptly takes and diligently pursues such actions as are necessary.

17.3 Utility Contractor is adjudicated bankrupt or makes any assignment for the benefit of creditors or Utility Contractor becomes insolvent, or is unable or unwilling to pay its debts; or

17.4 Utility Contractor has acted negligently, as defined by general and applicable law, in performing the Work hereunder; or

17.5 Utility Contractor has committed any act of fraud upon the City; or

17.6 Utility Contractor has made a material misrepresentation of fact to the City while performing its obligations under this Agreement.

17.7 Utility Contractor is experiencing a labor dispute which threatens to have a substantial, adverse impact upon performance of this Agreement without prejudice to any other right or remedy City may have under this Agreement.

17.8 Utility Contractor fails to comply with any condition or provision of this Agreement including any Task Authorization.

17.9 Notwithstanding the aforementioned, in the event of a default by Utility Contractor, the City shall have the right to exercise any other remedy the City may have by operation of law, without limitation, and without any further demand or notice. In the event of such termination, City shall be liable only for the payment of all unpaid charges, determined in accordance with the provisions of this Agreement, for Work properly performed prior to the effective date of termination. Additionally, in the event of such termination upon default and breach of this Agreement, the City may take possession of the Project Site and of all materials, tools, and appliances thereon and finish the work by whatever method the City may deem expedient. Any completed services performed by Utility Contractor under this Agreement shall, at the option of the City, become the City's property and Utility Contractor shall be entitled to receive equitable compensation for any Work completed to the satisfaction of the City. The Utility Contractor, however, shall not be relieved of liability to the City for damages sustained by the City by reason of any breach of the Agreement, and the City may withhold any payments to Utility Contractor for the purpose of setoff until such time as the amount of damages due to the City from Utility Contractor can be determined.

18.0 FORCE MAJEURE

18.1 Any delay or failure of either party in the performance of its required obligations hereunder shall be excused if and to the extent caused by acts of God; fire; plague; pandemic; flood; windstorm; explosion; riot; ware; sabotage; strikes; extraordinary breakdown of or damage to City's affiliates' generating plants, their equipment, or facilities; court injunction or order; federal and/or state law or regulation; order by any regulatory agency; or cause or causes beyond the reasonable control of the party affected; provided that prompt notice of such delay is given by such party to the other and each of the parties hereunto shall be diligent in attempting to remove such cause or causes. If any circumstance of Force Majeure remains in effect for sixty (60) days, either party may terminate this Agreement.

19.0 GOVERNING LAW & VENUE

19.1 This Agreement is made and shall be interpreted, construed, governed, and enforced in accordance with the laws of the State of Florida. Venue for any state action or litigation shall be Brevard County, Florida. Venue for any federal action or litigation shall be Orlando, Florida.

19.2 The parties agree that should any dispute arise between them regarding the terms or performance of this Agreement, both parties will participate in mediation. The parties agree to equally share the cost of the mediator. Should the parties fail to resolve their differences through mediation, then any cause of action filed hereunder shall be filed in the Circuit or County Court for Brevard County, Florida.

20.0 HEADINGS

20.1 Paragraph headings are for the convenience of the parties only and are not to be construed as part of this Agreement.

21.0 SEVERABILITY

21.1 In the event any portion or part of thereof this Agreement is deemed invalid, against public policy, void, or otherwise unenforceable by a court of law, the parties shall negotiate an equitable adjustment in the affected provision of this Agreement. The validity and enforceability of the remaining parts of this Agreement shall otherwise by fully enforceable.

22.0 WAIVER AND ELECTION OF REMEDIES

22.1 Waiver by either party of any term, condition or provision of this Agreement shall not be considered a waiver of that term, condition, or provision in the future.

22.2 No waiver, consent, or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of each party hereto.

23.0 THIRD PARTY RIGHTS

23.1 Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Utility Contractor.

24.0 PROHIBITION AGAINST CONTINGENT FEES

24.1 Utility Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the Utility Contractor, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the Utility Contractor, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement.

25.0 ENTIRE AGREEMENT

25.1 This Agreement, including any Task Authorizations and Schedules, Attachments, Appendix's and Exhibits attached hereto, constitute the entire agreement between City and Utility Contractor with respect to the Services specified and all previous representations relative thereto, either written or oral, are hereby annulled and superseded. The terms and conditions of this Agreement shall be deemed automatically incorporated into any Task Authorization approved and executed hereunder regardless if the Task Authorization references this Agreement.

26.0 NO JOINT VENTURE

26.1 Nothing herein shall be deemed to create a joint venture or principal-agent relationship between the parties; and neither party is authorized to, nor shall either party act toward third persons or the public in any manner which would indicate any such relationship with the other.

27.0 ATTORNEY'S FEES

27.1 Should either party bring an action to enforce any of the terms of this Agreement, each party shall bear its own costs and expenses of such action including, but not limited to, reasonable attorney's fees, whether at settlement, trial or on appeal.

28.0 COUNTERPARTS

28.1 This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be considered an original agreement; but such counterparts shall together constitute but one and the same instrument.

29.0 AGREEMENT INTERPRETATION; DRAFTING

29.1 At its discretion, during the course of the work, should any errors, ambiguities or discrepancies be found in the Agreement or specifications, the City at its sole discretion will interpret the intent of the Agreement and work descriptions and the Utility Contractor hereby agrees to abide by the City's interpretation and agrees to carry out the work in accordance with the decision of the City. When the material, article or equipment is designated by a brand name and more than one brand name is listed, it will be understood that the work is based on one brand name only. The Utility Contractor will be responsible for all coordination necessary to accommodate the material, article or equipment being provided without additional cost to the City. A substitute material, article or equipment is allowed if it is reasonably equivalent to the brand name specified. The City has full discretion to decide whether a substitute is reasonably equivalent. Utility Contractor must notify the City prior to use of the substitute for a specified brand name and allow the City to make a determination before Utility Contractor uses the substitute.

29.2 City and Utility Contractor each represent that they have both shared equally in drafting this Agreement and no party shall be favored or disfavored regarding the interpretation of this Agreement in the event of a dispute between the parties in a court of competent jurisdiction, except as provided in Section 29.1.

30.0 NON-DISCRIMINATION

30.1 Utility Contractor warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, or sexual orientation.

31.0 PUBLIC ENTITY CRIMES

31.1 As provided in §287.132 and §287.133, *Florida Statutes*, by entering into this Contract or performing any work in furtherance hereof, the Utility Contractor certifies that it, its affiliates, suppliers, subcontractors and Contractors who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by §287.133(3)(1), *Florida Statutes*.

32.0 CODE REQUIREMENTS

32.1 The Utility Contractor and its subcontractors on any project must be familiar with all applicable Federal, State, County, City and Local Laws, Regulations or Codes and be governed accordingly as they will apply to the project and the actions or operations of those engaged in the work or concerning materials used. Utility Contractor shall ask for and receive any required inspections.

33.0 TESTING

33.1 The Utility Contractor shall be responsible for all tests and testing required by this Contract, unless otherwise specified. All testing shall be done in the presence of a representative of the City. The City reserves the right to test all materials, products, installations and equipment.

33.2 All pipelines will be placed in satisfactory operating condition by the Utility Contractor prior to final payment, and the Utility Contractor shall furnish a letter addressed to the City advising that the completed Work has been installed in accordance with the plans and specifications of this Contract and that all items are in proper operating condition.

34.0 CITY'S RIGHT TO STOP WORK

34.1 If the Utility Contractor persistently fails or refuses to perform the Work in accordance with the contract documents, the City shall have the right, but not an obligation, to order the Utility Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected, no longer exists, or the City orders that the Work be resumed. In such event, the Utility Contractor shall immediately obey such order. A stop work directive provided under this paragraph shall not entitle the Utility Contractor to an extension of the completion date.

35.0 CITY'S RIGHT TO PERFORM WORK

35.1 If the Utility Contractor's Work is stopped by City, or if the Utility Contractor persistently fails or refuses to perform the Work in accordance with the contract documents, and the Utility Contractor fails within three (3) working days of such stoppage, failure, or refusal, to provide adequate assurance to the City that the cause of such stoppage, failure, or refusal will be

eliminated or corrected, then the City may, without prejudice to any other rights or remedies the City may have against Utility Contractor, proceed to carry out the subject Work. In such a situation, an appropriate change order shall be issued deducting from the contract price the cost of correcting the subject deficiencies, plus compensation for the City's Consultant's additional services and expenses necessitated thereby, if any. If the unpaid portion of the contract price is insufficient to cover the amount due the City, the Utility Contractor shall pay the difference to the City.

36.0 EMERGENCIES

36.1 All emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Utility Contractor, without special instruction or authorization from the City or the City's authorized representative, is obligated to immediately act to prevent threatened damage, injury, or loss. The Utility Contractor shall give the City's authorized representative(s) written documentation within three (3) days from the inception of said emergency if the Utility Contractor believes that any significant changes in the Work or variations from the contract documents have been caused thereby. If the City's authorized representative determines that a change in the contract documents is required because of action taken by the Utility Contractor in response to such an emergency, a change order will be issued to document the consequences of such action.

37.0 WARRANTY / GUARANTEE

Unless otherwise required by the specifications, the Utility Contractor shall furnish a one (1) year warranty on all equipment, furnishings, and installation provided hereunder against defect in material and/or workmanship. The warranty shall become effective on the Date of Substantial Completion and acceptance by the City or as otherwise required by law. Should any defect in materials or workmanship, excepting ordinary wear and tear, be discovered during the above-stated warranty period, the Utility Contractor, upon written notice from the City, shall immediately repair or replace same at no cost to the City. The Utility Contractor will not be liable under the above warranty for any defects or damages resulting from unforeseeable causes beyond the control, and without fault or negligence, of the Utility Contractor, such as misuse or neglect by the City, acts of God, fires, floods and hurricanes.

38.0 WAIVER OF JURY TRIAL

38.1 The City and Utility Contractor hereby knowingly, irrevocably, voluntarily and intentionally waive any right either may have to a trial by jury in respect to any action, proceeding, lawsuit or counterclaim based upon the contract, arising out of, under, or in connection with the construction of the work, or any course of conduct, course of dealing, statements (whether verbal or written) or the actions or inactions of any party.

39.0 BARRICADES

39.1 The Utility Contractor shall provide all barricades and/or protective safety devices and shall take all necessary precautions to protect all personnel and property. The

Utility Contractor shall remove said barricades and/or safety devices from City property at the completion of the project.

40.0 COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT

40.1 By the submission of its Bid, Bidder certifies that all material, equipment, etc. contained in its bid meets all Occupational Safety and Health Act (OSHA) requirements. Bidder further certifies that if it is the successful Bidder, and any of the material, equipment, etc. delivered is subsequently found to be deficient of any OSHA requirement in effect on date of delivery, all costs necessary to bring the material, equipment, etc. into compliance with the aforementioned requirements shall be borne by the Bidder. Furthermore, in compliance with Florida law, any item delivered from a Task assigned under this Agreement must be accompanied by a Material Safety Data Sheet (MSDS). The MSDS must include the following information:

A. The chemical name and common name of the toxic substance

B. The hazards or other risks in the use of the toxic substances including:

1. The potential for fire, explosion, corrosion and reactivity
2. The known acute and chronic health effects of risks from exposure, including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance
3. The primary routes of entry and symptoms of over-exposure

C. The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of over-exposure

D. The emergency procedure for spills, fire, disposal and first aid

E. A description in lay terms of the known specific potential health risks posed by the toxic substance intended to alert any person reading this information

F. The year and month, if available, that the information was compiled and the name, address and emergency telephone number of the manufacturer responsible for preparing the information

41.0 STORAGE, REMOVAL AND DISPOSAL OF SOLID WASTE/CONSTRUCTION DEBRIS

41.1 The Utility Contractor must comply with all applicable City Codes and solid waste franchise agreements regarding the storage, removal, and disposal of solid waste and construction debris. Prior to performing any Services required hereunder, the Utility Contractor shall contact the City's Utilities Department for information relative to complying with this section.

42.0 MATERIALS, INSTALLATION AND PERFORMANCE

42.1 The Utility Contractor shall be responsible for the provision, installation and performance of all equipment, materials, services, etc. offered in their Bid. The Utility Contractor is in no way relieved of the responsibility for the performance of all equipment furnished or of assuring the timely delivery of materials, equipment, etc. even though it is not of their own manufacture. Unless otherwise specified, material storage shall be on site and within the defined area of the Work and within the Utility Contractor's area of responsibility.

43.0 SET UP AND CONNECTIONS

43.1 All equipment is to be set up, connected to utilities, checked and demonstrated at no charge to the City. The Utility Contractor shall be responsible for all transportation, off-loading, handling, storage and installation of any City-furnished Utility Contractor-installed material and equipment.

44.0 SAFETY AND PROTECTION OF PROPERTY

44.1 The Utility Contractor shall take all reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to, its employees on the Work and all other persons who may be affected thereby; the Work and materials and equipment to be incorporated therein; and all other property at the site or adjacent thereto including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The Utility Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss, and shall give all notices required by same. This requirement includes, but is not limited to, the United Sates Occupational Safety and Health Act and the Florida Trench Safety Act, *Florida Statute* §553.60.

45.0 TAXES

45.1 The Utility Contractor shall pay all applicable sales, consumer-use, and other similar taxes required by law. The Utility Contractor is responsible for reviewing the pertinent State Statutes involving the sales tax and complying with all requirements.

46.1 ENTIRETY OF CONTRACT

46.1 The City and the Utility Contractor agree that this Contract sets forth the entire Contract between the parties and that there are no promises or understandings other than those stated herein. None of the provisions, terms and conditions contained in this Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto in accordance with Article 3.0 – Changes in the Scope of Work.

47.0 NOTICE

For Utility Contractor
Atlantic Development of Cocoa, Inc.

2185 West King Street
Cocoa, Florida 32926
Attention: _____
Phone: 321-639-8788

For City:

City of Cocoa/ Utilities Department
Attention: Utilities Director
351 Shearer Blvd.
Cocoa, Florida 32922
(321) 433-8710

47.1 Either party may change the notice address by providing the other party written notice of the change.

48.0 SOVEREIGN IMMUNITY

48.1 Notwithstanding any other provision set forth in this Agreement, nothing contained in this Agreement shall be construed as a waiver of the City's right to sovereign immunity under section 768.28, Florida Statutes, or other limitations imposed on the City's potential liability under state or federal law. As such, the City shall not be liable under this Agreement for punitive damages or interest for the period before judgment. Further, the City shall not be liable for any claim or judgment, or portion thereof, to any one person for more than two hundred thousand dollars ($200,000.00), or any claim or judgment, or portion thereof, which, when totaled with all other claims or judgments paid by the State or its agencies and subdivisions arising out of the same incident or occurrence, exceeds the sum of three hundred thousand dollars ($300,000.00). This paragraph shall survive termination of this Agreement.

49.0 CORPORATE REPRESENTATIONS BY UTILITY CONTRACTOR

49.1 Utility Contractor hereby represents and warrants to the City the following:

A. Utility Contractor is duly registered and licensed to do business in the State of Florida and is in good standing under the laws of Florida, and is duly qualified and authorized to carry on the functions and operations set forth in this Agreement.

B. The undersigned representative of Utility Contractor has the power, authority, and legal right to execute and deliver this Agreement on behalf of Utility Contractor.

50.0 INDEMNIFICATION.

50.1 For other and additional good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Utility Contractor shall indemnify, hold harmless and defend the City, its officers, agents, officials, representatives, employees, and/or

attorneys against any and all liability, loss, cost, damages, expenses, claim or actions, of whatever type, including but not limited to attorney's fees and suit costs, for trial and appeal, which the City may hereafter sustain, incur or be required to pay, arising out of, wholly or in part, or due to any act or omission of Utility Contractor, its agent(s), vendors, contractors, subcontractor(s), representatives, servants or employees in the execution, performance or non-performance or failure to adequately perform Utility Contractor's obligations pursuant to this Agreement and any and all Task Authorizations hereunder.

50.2 The indemnification provided above shall obligate the indemnifying party to defend at its own expense or to provide for such defense, at the sole option of the City, as the case may be, of any and all claims of liability and all suits and actions of every name and description that may be brought against the City, its officers, agents, officials, representatives, employees, and/or attorneys which may result from the services under this Agreement whether the services be performed by the indemnifying party or anyone directly or indirectly employed or hired by them. In all events the City shall be permitted to choose legal counsel of its sole choice, the fees for which shall be subject to and included with this indemnification provided herein, as long as said fees are reasonable. This paragraph shall survive termination of this Agreement.

The Utility Contractor specifically assumes potential liability for actions brought by Utility Contractor's own employees against the City and, solely for the purpose of this indemnification and defense, Utility Contractor specifically waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. This waiver has been specifically and mutually negotiated by the parties.

PURSUANT TO SECTION 558.0035, FLORIDA STATUTES, AN INDIVIDUAL EMPLOYEE OR AGENT OF THE CONTRACTOR MAY NOT BE HELD INDIVIDUALLY LIABLE FOR ECONOMIC DAMAGES RESULTING FROM NEGLIGENCE UNDER THIS AGREEMENT IF THE CONDITIONS OF SECTION 558.0035 ARE SATISFIED.

IN WITNESS WHEREOF, the parties hereto caused this Agreement to be executed by their duly authorized representatives as of the date first written above.

CITY:

CITY OF COCOA, FLORIDA:

By: _____
Stockton Whitten, City Manager

ATTEST:

Carie Shealy, City Clerk

SEAL
FLORIDA

UTILITY CONTRACTOR:

Atlantic Development of Cocoa, Inc.:

By: _____
Print Name/Title: GLENN S. GRIGNON
VICE PRESIDENT

EXHIBIT "A"

SCOPE OF SERVICES
UTILITY GENERAL CONSTRUCTION CONTRACTOR
AGREEMENT

The Scope of Services to be provided by the Utility Contractor shall include all phases of underground utility services. The Utility Contractor has already been pre-qualified by City to perform the following:

- Install new water, sewer, and/or reclaim pressure pipe, gravity main, manholes, valves, fire hydrants, service lines, air release valves, and other associated infrastructure and appurtenances.
- Repair and/or replace water, sewer, and/or reclaim pressure pipe, gravity main, manholes, valves, fire hydrants, service lines, air release valves, and other associated infrastructure and appurtenances.
- Repair and/or replace or installation of new piping and associated appurtenances located at the water and wastewater plants and the wellfield
- Perform line stops / install insert valves on various size pipe to include large diameter transmission mains
- The projects will consist of various size pipe consisting of various materials: i.e.: metal, plastic, Asbestos Cement Pipe, and reinforced concrete.
- All work on the City of Cocoa Utility system shall meet the requirements of the City of Cocoa Utilities Technical Provisions and Standard Details
- The Contractor shall include a Critical Path Method Schedule for each project. The requirements will be detailed in the specifications for each project.
- Work shall include any associated restoration, maintenance of traffic, erosion control, clearing and grubbing, or other similar ancillary work to complete the project
- Restoration of FDOT, Brevard County, City of Cocoa, or other local jurisdiction roads (to included driveways, curbing, and sidewalk), storm water systems, and/or other utilities affected by the utility work. The restoration shall be per the governing authority's specifications and requirements
- Contractor shall meet all safety requirements as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work.

Quotes will first be obtained from Utility Contractor prior to commencement of any planned project. The City shall retain the right to refuse any quote for just cause.

For each project Utility Contractor will supply the following:

A. Labor, equipment and material (unless material is supplied by City by mutual agreement)

B. Traffic control: On-site personnel must be certified in FDOT Maintenance of Traffic Level III Work Zone Training.

C. Supervision: On-site personnel in charge must be OSHA Certified Competent Person

D. De-watering

E. As-built drawings: When project is completed

EXHIBIT "B"

FORM

PUBLIC CONSTRUCTION BOND

In compliance with Section 255.05, Florida Statutes

BOND NO.:	
Contractor Name:	
Contractor Address:	
Contractor Phone No.:	
Surety Company:	
Surety Agent:	
Owner Name:	City of Cocoa
Owner Address:	65 Stone Street
	Cocoa, Florida 32922
Owner Phone No.	(321) 433-8710
Owner Fax No.	
Owner Email:	
Contract Date:	
Contract Amount:	$
Bond Amount:	$
Contract No. (if applicable):	
Description of Work:	
Project Address:	
Legal Description:	

Bid Number:	

BY THIS BOND, We,_____., a _____as Principal, and _____ a _____ Corporation as Surety, are hereby bound to the **CITY OF COCOA**, a Florida municipal corporation , herein called Owner, in the sum of **$**_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

a. Performs the _____Agreement dated _____, 20____, ("Agreement") between Principal and Owner for construction of the _____as specified in the Agreement, the Agreement being made a part of this bond by reference, at the times and in the manner prescribed in this Agreement; and

b. Promptly makes payments to all claimants, as defined in section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the Agreement; and

c. Pays Owner all losses, damages, including delay damages, expenses, and costs that Owner sustains because of a default by Principal under the Agreement; and

d. Performs the guarantee of all work and materials furnished under the Agreement for the time specified in the Agreement and by law including all warranties and guarantees specified in the Agreement, then this bond is to be void; otherwise it remains in full force and effect.

e. In any action against this performance bond, the Owner is entitled to attorney's fees under sections 627.428 and 627.756, Florida Statutes, and Danis Industries Corp. v. Ground Improvement Techniques, 645 So.2d 420 (Fla. 1994) and McCarthy Bros. Co. v. Tilbury Construction, Inc., 849 So.2d 7 (Fla. 1st DCA 2003), including appellate attorney's fees.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

IN WITNESS WHEREOF, the said Principal and Surety have assigned and sealed this instrument this _____ day of _____ 2020.

CONTRACTOR AS PRINCIPAL

_____., a _____:

_____

(Corporate Seal)

Signature_____

Title_____

SURETY

Company:

_____

(Corporate Seal)

Signature_____

Title_____

Approved as to Form:

_____

Cocoa City Attorney

Finance Department
Purchasing Division
65 Stone Street I Cocoa, FL 32922
Phone: (321) 433-8844 I Email: dkozlak@cocoafl.gov

CITY OF COCOA
AMENDMENT TO AGREEMENT FOR UTILITIES
GENERAL CONSTRUCTION CONTRACTOR SERVICES
1st AMENDMENT
ATLANTIC DEVELOPMENT OF COCOA, INC.
RFP NO. 20-18-COC

This 1ST Amendment to the "AGREEMENT FOR UTILITIES GENERAL CONSTRUCTION CONTRACTOR SERVICES" is made between the City of Cocoa and Atlantic Development of Cocoa, Inc. located at 2185 West King Street, Cocoa, Florida 32926.

The agreement entered into on November 9, 2020, is hereby amended to renew for the first renewal option available for one (1) two-year renewal, commencing on November 9, 2023, and terminating on November 8, 2025.

All other terms, conditions, provisions, and scope of services remain unchanged. By signing below, each party indicates its approval of this Amendment for Contract.

ATLANTIC DEVELOPMENT OF COCOA, INC.

By: Glenn S. Grignon
(Name) Printed

Vice President
(Title)

Signature 05/05/2023 Date

CITY OF COCOA

By: Stockton Whitten
(Name) Printed

City Manager
(Title)

Signature 06/06/2023 Date

ATTESTED BY:

City Clerk
Signature/Title

CC: Carie Shealy, City Clerk
John A. Walsh, P.E. Utilities Director
Diane Kozlak, Senior Buyer & Contract Agent

CORPORATE SEAL FLORIDA

January 2024

CITY OF COCOA
BREVARD COUNTY, FLORIDA

QUOTE DOCUMENTS AND SPECIFICATIONS

FOR

UTILITY CONSTRUCTION
OSAGE/ANGELICA UTILITIES IMPROVEMENTS

Division 0 Requirements Prepared By:
The City of Cocoa Utilities Dept.
351 Shearer Blvd.
Cocoa, FL 32922
(321) 433-8701

Technical Specifications and Construction Drawings Prepared By:
DRMP, Inc.
100 Parnell Street
Merritt Island, FL 32953
(321) 453-0010

JUAN JOSE GONZALEZ
LICENSE
No. 84538
12-21-2023
STATE OF
FLORIDA

Juan Gonzalez, P.E. #84538
DRMP COA #2648

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SPECIFICATION INDEX

UTILITY CONSTRUCTION
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

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INVITATION TO QUOTE

Quotes will be received via email at kennis@cocoafl.gov or in person at the office of the Engineering Division of the City of Cocoa, located at 351 Shearer Blvd., Cocoa, Florida, 32922, by **3:00 p.m., February 7, 2024**.

Osage/Angelica Utilities Improvements

The work to be quoted consists of furnishing all labor, materials, equipment, tools, transportation, services, and incidentals; and performing all work specified in the quote documents, for extension of approximately 4900 LF (linear feet) of water main, 5600 LF of force main, and 2450 LF of reclaimed water main along Osage and Angelica Streets, with connections to existing mains, all in Cocoa, Florida. The project consists of three (3) distinct utility mains, all located in public rights-of-way or easements obtained by the City of Cocoa. All work performed shall be in accordance with the specifications and contract documents pertaining thereto.

Only Contractors PRE-QUALIFIED by the City of Cocoa Utilities Department will be permitted to quote this project. The successful low quoter will be determined based on the quotes indicated in Section 00300 (as further described in the Technical Specifications), and subject to meeting all Qualifications required in the Contract Documents

A non-mandatory pre-quote conference will be held at **10:00 a.m., January 17, 2024** at the City of Cocoa Utilities Building, located at 351 Shearer Boulevard, Cocoa, Florida 32922.

Questions are to be sent to kennis@cocoafl.gov and are due by **3:00 p.m. on January 26, 2024**.

The City reserves the right to reject any or all quotes, with or without a cause; to waive technical errors and informalities; and to accept the quote, which in its judgment, best serves the City.

The Contractor receiving the Contract award will be required to supply a materials, performance, and payment bond(s) per the terms and conditions of RFQ 20-18-COC Agreement for Utilities General Construction Contractor.

The Contract Documents consist of the following documents, which in the event of conflicting information, shall be given precedence in the following order:

- Quote Documents to include the Specifications and Bid Plans for the Osage/Angelica Utilities Improvements;
- Executed Task Authorization;
- RFQ 20-18-COC and RFQ 20-18-COC Agreement for Utilities General Construction Contractor;
- City of Cocoa Utilities Technical Provisions and Standard Details Manual, Latest Revision, accessible on the City of Cocoa's website.

The usage of the terms bid, quote, and proposal, and any variations thereof, may be used interchangeably with each other and are meant to convey the same meaning within the Contract Documents.

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SECTION 00300
QUOTE FORM
Osage/Angelica Utilities Improvements
City of Cocoa

Proposal of _____
(Name)

_____
(Address)

to furnish all materials, service, equipment, and labor required, for Friday Road Utilities Improvements as specified in Contract Documents.

The undersigned has carefully examined the Contract Documents and is familiar with the nature and extent of the work and materials and labor required. The undersigned agrees to do all of the work called for by said specifications, in the manner prescribed therein, in accordance with the Contract Documents, for the prices stated in the spaces herein provided.

NOTE THE CONTRACT WILL BE AWARDED BASED ON THE TOTAL QUOTE.

TOTAL QUOTE	$

_____Dollars
(Total Written in words)

FAILURE TO COMPLETE THE ABOVE WILL RESULT IN THE QUOTE BEING DECLARED NON-RESPONSIVE.

The undersigned also agrees as follows:

1) The undersigned agrees that the quote shall remain firm for a period not to exceed ninety (90) calendar days from the due date of the quote. The undersigned also agrees to commence the work with an adequate force and equipment within thirty (30) calendar days after the issue date of Notice to Proceed or Original Purchase Order. The work shall be substantially completed within three hundred and sixty-five (365) calendar days of Notice to Proceed or Purchase Order. The work shall be finally completed, ready for Final Payment within thirty (30) calendar days after the actual date of Substantial Completion. The Contractor agrees to reimburse the City of Cocoa, Florida, liquidated damages per the terms and conditions of RFQ 20-18-COC, Agreement for Utilities General Construction Contractor.

2) The Contractor shall procure and shall maintain the insurance requirement during the life of this Contract.

_____
(Company or Corporation Name)

_____
(Street or P.O. Box)

_____
(City, State and Zip Code)

_____
(Area Code and Phone Number)

_____
(Area Code and Fax Number)

_____
(Email Address)

By:_____
(Name Printed and Title)

_____
(Signature)

City of Cocoa
Osage/Angelica Utilities Improvements

Quote Schedule
Quoter will complete the Work in accordance with the Contract Documents for the following prices:

Item #	Item	Qty	Un	Unit $	Extended $
Miscellaneous					
101-1	Mobilization	1	LS		
101-2	Pre & post construction video	1	LS		
101-3	Record drawings	1	LS		
102-1	Maintenance of traffic	1	LS		
104-30	Erosion & sediment control	1	LS		
110-1-1	Clearing and grubbing (selective)	1	LS		
121-70	Flowable fill	20	CY		
334-1-13	Superpave asphalt, SP-12.5, traf. C	20	TN		
570-1-3	Sod, Bahia	3,600	SY		
570-1-4	Sod, St. Augustine (contingency)	100	SY		
700-1	Signing and pavement markings	1	LS		
Potable Water					
1050-31-208	8" PVC C900 DR18	50	LF		
1050-31-212	12" PVC C900 DR18	1,600	LF		
1050-41-214	Direct bore 14" HDPE	3,252	LF		
1055-1	Fittings	4.02	TN		
1080-11-304	6" Gate valve	10	EA		
1080-11-402	8"×8" Wet tap	1	EA		
1080-11-403	12"×8" Wet tap	1	EA		
1080-11-404	12" Gate valve	6	EA		
1080-11-405	30"×12" Wet tap	1	EA		
1644-116-08	Fire hydrant	10	EA		
Force Main					
2050-31-208	8" PVC C900 DR18	885	LF		
2050-41-210	Direct bore 10" HDPE	4,695	LF		
2055-1	Fittings	1.65	TN		
2080-11-402	8" Gate valve	4	EA		
2080-11-403	12"×8" Wet tap	1	EA		
2080-11-406	Air/vac assembly	7	EA		
Reclaimed Water Main					
3050-31-212	12" PVC C900 DR18	290	LF		
3050-41-214	Direct bore 14" HDPE	2,160	LF		
3055-1	Fittings	1.05	TN		
3080-11-403	12"×12" Wet tap	1	EA		
3080-11-404	12" Gate valve	2	EA		
				Grand Total Bid	

Quoter acknowledges that the estimated quantities indicated in the Quote Schedule are not guaranteed, and are solely for the purpose of comparison of quotes, and final payment for all unit price quote items will be based on actual quantities, determined as provided in the Contract Documents.

Submitted by:_____

Contractor:_____

Address:_____

Telephone:_____

State of Florida Certified General Contractor or Underground Contractor (Required Information)

Licensee:_____

License No.:_____

SECTION 00330
LISTING OF SUBCONTRACTORS

The Contractor proposes that the following subcontractors are qualified to performed the referenced work and have successfully done so on recent projects similar in nature and size. Upon approval of subcontractors listed the successful quoter shall not substitute subcontractors without approval from the Engineer and Owner.

DESCRIPTION OF WORK	COMPANY NAME ADDRESS & PHONE NUMBER	REFERENCES
	Name:	1.
	Address:	2.
	City:	
	State: zip:	
	Phone:	3.

	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.

	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.

	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.

	Name·	1.
	Address:	2.
	City:	
	State: zip·	
	Phone:	3.

SECTION 00675

SECTION lK - FLORIDA TRENCH SAFETY ACT CERTIFICATION AND DISCHARGE STATEMENT MANDATORY

Contractor acknowledges that included in the various items of the proposal and in the Total Quote Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The contractor further identifies the costs to be summarized below.

	ITEM	TRENCH SAFEY MEASURE (DESCRIPTION)	UNIT OF MEASURE	UNIT	UNIT COST	EXTEDED COST
A						
B						
C						
D						

These units, costs, and the unit prices inferred shall be disclosed solely for the purpose of compliance with the procedural requirements of the Florida Trench Safety Act.

This amount disclosed as the cost of compliance with the applicable trench safety requirement does not constitute the extent of the Contractor's obligation to comply with said standards. Contractor shall expend additional sums, at no additional cost to the OWNER (except as may otherwise be provided), which are necessary to so comply.

Acceptance of the Quote to which this certification and disclosure applies in no way represents that the OWNER or its representatives have evaluated and thereby determined that the above costs are adequate to comply with the applicable trench safety requirements nor does it in any way relieve the Contractor, of its sole responsibility to comply with the applicable trench safety requirements.

_____
Name of Firm

_____
Authorized Signature

Date: _____

This document shall be submitted with the Quote packet. Failure to complete the above may result in the Quote being declared non-responsive.

Attachment A
Contractor E-Verify Affidavit

SECTION 00700
GENERAL CONDITIONS

PLEASE REFER TO RFQ 20-18-COC CONTRACT DOCUMENTS FOR UTILITIES GENERAL CONSTRUCTION CONTRACTOR FOR THE GENERAL CONDITIONS

END OF SECTION

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DIVISION 1- GENERAL REQUIREMENTS

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SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 LOCATION

A. The Work described by these specifications is located along Osage & Angelica Streets in Cocoa, Florida. Within this specification the utility construction shall be referred to as the Project or Work, the City of Cocoa shall be referred to as the Owner or City.

1.02 DESCRIPTION

A. The Work to be done consists of furnishing all labor, equipment, materials and services required for new construction of extensions of the City of Cocoa potable water main, force main, and reclaimed water main as indicated on the construction plans, including all appurtenances and miscellaneous items as required.

B. Contractor's Duties:

1. Cooperate with the Owner or Owner's Representatives.

2. Except as specifically noted, provide and pay for:

   a. Labor, materials, testing services, and equipment.
   b. Tools, construction equipment, and machinery.
   c. Water and utilities required for construction.
   d. Other facilities and services necessary for the proper execution and completion of the Work.
   e. Layout and field engineering for completion of the proposed Work including survey of easements as necessary.

3. Secure and pay for, as necessary for the proper execution and completion of the Work, and as applicable at time of receipt of quotes:

   a. Permits.
   b. Government fees.
   c. Licenses.

4. Give required notices.

5. Comply with codes, ordinances, rules, regulations, orders, and other legal requirements of public authorities that bear on performance of Work.

6. Promptly submit written notice to Owner of observed variance of Contract Documents from legal requirements.

7. Enforce strict discipline and good order among employees. Do not employ on Work persons not skilled in their assigned task.

8. The Contractor will furnish personnel and equipment that will be efficient, appropriate, and large enough to secure a satisfactory quality of Work and a rate of progress that will ensure the completion of the Work within the time stipulated in the Proposal. If, at any time, such personnel appear to the Owner to be inefficient, inappropriate or insufficient for securing the quality of Work aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor will conform to such order. Failure of the Owner to give such order will in no way relieve the Contractor of his obligations to secure the quality of the Work and rate of progress.

9. The Contractor will not enter, occupy, or cause impacts to private land outside of easements, except by written permission of the landowner and prior written consent of the Owner. Copies of such written permission will be supplied to the Owner within three (3) days of receipt. The Contractor will be responsible for restoring all disturbed private property at no additional cost to the Owner.

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION (NOT U.SED)

****END OF SECTION****

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 UNIT PRICES

A. Payment will be made to the Contractor for the actual quantities of Work performed or materials furnished in accordance with the Drawings and Specifications. The scheduled quantities of Work to be done and materials to be furnished may each be increased or decreased without in any way invalidating the unit prices quote. The unit prices quote shall not change.

1.02 UNITS OF MEASURE

Listed below are selected abbreviations used in the FDOT Basis of Estimates.

AC	Acre
AS	Assembly
CF	Cubic Foot
CY	Cubic Yard
EA	Each
GA	Gallon
GM	Gross Mile
HR	Hour
LB	Pound
LF	Linear Foot
LO	Location
LS	Lump Sum
MG	Thousand Gallons
MH	Man Hour
MI	Mile
NM	Net Mile
PI	Per Intersection
SF	Square Foot
SY	Square Yard
TN	Ton

1.03 FINAL MEASUREMENTS

A. The Contractor shall make all measurements and check all dimensions necessary for the proper construction of the Work called for by the Drawings and Specifications; and, during the prosecution of the Work, he shall make all necessary measurements to prevent misfitting in said Work and shall record such accurate measurements of the construction on a set of construction drawings to be submitted to the Engineer for review with all progress payment applications.

B. The method of measuring the Work for payment under the various items shall be

as indicated below. In any event, the unit or lump sum price for the respective items shall include the installation complete, in all details, and ready for use.

1.04 PAY ITEMS

Quote Item No.
101-1 Mobilization – per LS

A. The Work specified in this item consists of the preparatory Work and operations in mobilizing for beginning Work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, and for the establishment of temporary offices, buildings, safety equipment, first aid supplies, sanitary and other facilities, as required by these Specifications, special provisions, and State and local laws and regulations. The costs of bonds, permits and any required insurance, and any other preconstruction expense necessary for the start of the Work, excluding the cost of construction materials, shall also be included in this item. The costs for audio-visual documentation, indemnification, and for provision of the field office shall be included in this item. The price to be paid for this item shall be based on such Work being completed and accepted, and the lump sum price quote. The standard retainage will be applied to this item.

Quote Item No.
101-2 Pre and Post Construction Video- Per LS

The Contractor is to provide a pre-construction video and a Post Construction video of the entire project limits in accordance with Section 01315 of these specifications. All videos to be provided through download via Microsoft OneDrive or equivalent.

Quote Item No.
101-3 Record Drawings- Per LS

Record drawings are required for all systems to be accepted by the Engineering Division. Record drawings will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

· Location of all valves, service lines, fittings and fire hydrants using at least two ties to permanent points (manholes, power poles, curbs, or storm water inlets). An acceptable station and offset system may be used for service lines and fittings only.

· Location of mains from property easement lines or edge of pavement at intervals of 300 feet.

· Elevations to the top of the mains at intervals of 300 feet and at all

drainage, roadway, highway and sewer main crossings. Bench mark to be shown on record drawings.

- Separation between reclaimed water, gravity sewer, drainage pipes, gas lines, or force mains and water mains if they are installed within 10 feet of water mains.

- Water main material and distance of mains from buildings or structures within 20 feet of the water main.

- Distance from hydrant to hydrant valve.

- Pertinent easement information.

- Certification by the surveyor or Engineer of Record accepting responsibility for accuracy of information supplied on the record drawings and a statement certifying that all mains are within easements and/or public right-of-way. The name "City of Cocoa" must appear on all record drawing survey information.

Record drawings will be drawn at an engineering scale that is legible and readable as determined by city staff. Areas requiring additional detail may be enlarged as necessary. Right-of-way, easements, and lot lines will be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on DEP Form 62-555.900(9) that the system depicted on the record drawing was constructed in substantial conformance with approved plans and will function as intended. Lot, block numbers, and street names will be included. Provide three (3) sets of signed and sealed record drawings and one (1) digital file including all reference files (XREF). AutoCAD 2010 or higher, or DXF format shall be provided to the City.

CAD drawing standards for record drawings will be available from the Engineering Division upon request. These standards will provide for isolated layer information, text height, font, line type and weight, specific standard symbols (blocks), etc. which will allow transfer of record drawing data to city as-built maps in a standardized format.

Quote Item No.
102-1 Maintenance of traffic – per LS

A. General: Work under this section consists of maintaining traffic within the limits of the project for the duration of construction in accordance with the U.S. Department of Transportation-Federal Highway Administration's

Manual On Uniform Traffic Control Devices (MUTCD) current edition, FDOT Index 102 Series and FDOT Standard Specification Section 102.

B. The Contractor must submit to the Owner and Brevard County a Traffic Control Plan (TCP) for review and approval, a minimum of 28 calendar days prior to the proposed activation of such plan. Any Alternative TCP submitted shall conform with FDOT Standard Specification Section 102. The purpose of the Traffic Control Plan is to depict the concept of feasible construction sequencing and maintenance of traffic (MOT). The TCP shall indicate typical signing, pavement marking and barricade locations and types. Additional details are found in the MUTCD, FDOT Index (102 Series) and Standard Specifications. Brevard County approval is required.

C. The Contractor shall provide a Worksite Traffic Supervisor, per FDOT Standard Specification Section 102-3.2, who shall be responsible for initiating, installing and maintaining all traffic control devices as described in these Contract Specification and Contract Plans and as described in Section 102.

The Contractor shall not isolate residences or places of business. Safe and stable access shall be provided to all residences and all places of business whenever construction interferes with the existing means of access, per Section 102-8.

D. Quantities: the Contractor is to determine the actual quantities and items to be used for MOT.

E. Prior to any required road closings, Contractor is to perform exploratory excavations and investigation as necessary to identify existing utilities locations (underground and overhead) and any conflict areas. Any required utility relocations to be scheduled and coordinated with Owner and utility companies prior to any road closing.

F. Traffic control techniques, including rerouting of traffic, signing and pavement markings, shall be in conformance with FDOT's *Manual on Traffic Control and Safe Practices*, most current edition. Road closings shall be per the TCP and specifications.

G. Only new fluorescent orange reflective sheeting, as specified in the FDOT Specifications, Section 994 shall be used for signs and barricades used in conjunction with MOT. The reflective sheeting on signs and barricades scratched or damaged to the point that reflectivity is impaired shall be replaced at no expense to the Owner.

H. All construction warning signs shall be 48" x 48" or larger along the project. All construction signs for signalized intersections shall be 48" x 48" or larger along cross roads. All construction signs for non-signalized intersections shall be 36" x 36" or larger along cross roads and shall be

supplied by the Contractor.

I. Driveways to private property, residences, businesses, etc., and all public street connections shall remain open except for very short periods associated with a critical, momentary point of construction operation.

J. Non-Compliance: Should the Owner or Engineer determine that traffic within the project is not being maintained in accordance with the approved TCP or presents a public safety concern, the Contractor shall have three (3) hours after notification is given, to take corrective action. Should the Contractor fail to take such corrective action, the Owner shall have the option to fine the Contractor $100 per hour (from the time of notification) until remedied and/or corrected the condition. The cost of such corrective action taken by the Owner shall be deducted from monies due the Contractor.

K. If drop-offs within the clear zone are greater than six inches (6") during a daylight moving operation (pipe installation, etc.), the Contractor shall furnish and install a temporary concrete barrier wall and relocate as operation proceeds, with temporary crash cushion (redirective option) at all ends. This specification supersedes, and is in addition to, FDOT Index 102 series.

L. Commercial materials for driveway maintenance shall be provided pursuant to FDOT Section 102-2.3 for all impacted driveways.

M. Temporary curb, curb relocation, temporary concrete barrier walls, and temporary crash cushions shall be provided pursuant to FDOT Section 102.

N. Portable changeable message signs (PCMS) shall be provided pursuant to FDOT Sections 102.99 and 900-4. Price and payment will be relocating, maintaining and removing changeable message signs.

Compensation: All compensation for Maintenance of Traffic shall be lump sum, except for temporary concrete barrier wall (furnish and install, and relocations) per FDOT Index 102-100, temporary crash cushions (furnish and install, and relocations). This shall include all items and services necessary for the safe maintenance of traffic within the project limits in conformance with the FDOT Index 102 Series and MUTCD 2009 Specifications. This shall include, but not be limited to barricades, flaggers, construction and advisory signing, detours, temporary pavement, temporary pavement markings, maintenance of pavement, asphaltic concrete curb, stormwater removals, temporary drainage structures and pipe, pumps, flashing arrow boards, high intensity flashing lights, removable and temporary pavement markings, traffic control (uniformed law enforcement) officer, steel traffic plates, temporary signal loops or cameras and temporary reflective pavement markers, for maintenance of traffic.

Quote Item No.

104-30 Erosion & sediment control – per LS

A. Provide erosion control measures on the project site and in areas outside the project site where Work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects to public or private property adjacent to the project site and damage to Work on the project. Construct and maintain temporary erosion control features or, where practical, construct and maintain permanent erosion control features as shown in the plans or as may be directed by the Engineer. The Contractor shall install erosion and water pollution control methods in accordance with FDOT Standard Specifications Section 104, and Best Management Practices (BMP) as described in the *Florida Land Development Manual: A Guide to Sound Land and Water Management.*

1. Pre-Construction Conference: At the pre-construction conference, the Contractor shall present, in written form, his plans & schedules for prevention, control, & abatement of erosion & water pollution in accordance with sections referenced above.

2. Staked silt fence shall be installed where shown on the plans and permits in accordance with standard construction practices, and in accordance with all Federal, State and local regulations. Quantities for this item are approximate only and are provided for Contractor's quoting purposes. Field conditions may require more or less fencing/barriers. Contractor to coordinate with Engineering Inspector. Additional silt fence may be required to meet water quality requirements. No additional payment will be made. Silt fence shall be maintained by the Contractor for the duration of the project. Maintenance and/or replacement of silt fence is included and no additional payment will be made.

3. Storm Sewer System: The Contractor shall protect the storm sewer system from erosion and sedimentation during construction. This may include the use of interlocking synthetic bales (per FDOT Specification Section 104-6.4.7), staked silt fences, or inlet protection systems (curb inlet filters), sediment barriers, or any other method approved by the Engineer. Should any construction item be damaged due to erosion or sedimentation, the Contractor shall repair or replace the item with no additional compensation.

4. When a National Pollutant Discharge Elimination System (NPDES) Permit is issued or approved by the U.S. Environmental Protection Agency (EPA) pursuant to Title 40 CFR (Code of Federal Regulations) Part 122, Section 26, the Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain the required FDEP-NPDES Notice of Intent Permit. The SWPPP will include the erosion control plan and all additional measures that will be employed to dispose of, control, or prevent the discharge of solid,

hazardous, and sanitary wastes to waters of the U.S. Include procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-stormwater discharges, such as contaminated groundwater or accidental spills. The owner will review and approve the Contractor's part of the SWPPP, including required signed certification statements, before soil disturbing activities begin.

The Contactor must provide the owner with two (2) signed copies of the SWPP plan and a copy of the NPDES Permit prior to commencing construction. Failure to sign any required documents or certification statements will be considered a default of the Contract. Any earth disturbing activities performed without the required signed documents or certification statements may be considered a violation of the Clean Water Act (CWA) by the EPA.

Quote Item No.
110-1-1 Clearing and grubbing (selective) – per LS

A. Clearing and Grubbing shall include compensation for removal and disposal of all vegetation, debris, trees, stumps, roots, and other such protruding objects, flexible pavement, concrete pavement, brick pavers, gravel, riprap, drainage structures and pipe, decommissioned AC waterline pipe and for backfilling the removal excavations and other facilities necessary to prepare the area of the proposed construction. All materials removed shall become property of the Contractor, and shall be removed from the project in a manner that meets all Federal, State, and local regulations concerning dumping of waste or construction materials. Any salvage value received from the removed materials shall be reflected in the Contractor's Proposal. Broken flexible pavement shall be disposed of outside the project by the Contractor.

B. In all areas shown in the plans to be cleared and grubbed, roots and other debris shall be removed to a depth of at least one foot below the ground surface. The surface shall then be plowed to a depth of at least six inches and all roots thereby exposed shall be removed to a depth of at least one foot. All stumps within the area to be cleared and grubbed shall be completely removed and disposed of by the Contractor. Where excavation is done, all roots, etc., protruding through or appearing on the surface of the completed excavation shall be removed to a depth of at least one foot below the excavation surface.

C. As an exception to the above provisions, where so indicated in the plans, designated in the Special Conditions or directed by the Engineer, desirable trees within the area to be cleared and grubbed shall be protected and left standing.

D. Property obstructions which are to remain in place; such as sewers, drains,

water or gas pipes, conduits, poles, paving, curbs, etc., are to be carefully protected from damage.

E. The Contractor shall maintain the existing ditches and swales where shown in the plans. The contractor shall furnish and install sod on maintained ditches as shown on the plans. Sod will be compensated for under the sod pay item.

All costs for relocation of mailboxes and new mailboxes that are broken are included under clearing and grubbing costs.

Quote Item No.
121-70 Flowable fill – per CY

A. Furnish and place flowable fill as shown or called for on the plans. Applications include beddings, encasements, pipes and general alternate backfill for trenches. Flowable fill mix design shall be in accordance with FDOT Section 121-3. Contractor to place flowable fill per FDOT Section 121-5. Testing of flowable fill shall be in accordance with FDOT Section 121-6.

Quote Item No.
334-1-13 Superpave asphaltic concrete, traffic C, SP-12.5 – per TN

A. The prime coat shall only be applied after the flowable fill has met all the requirements as set forth in Section 121-3. The prime coat shall be as set forth in the drawings and its composition and application shall conform to requirements set forth in Section 121-3 through, and including, 300-7; except 300-7.4. The rate of application shall be 0.06 to 0.08 Gal/YD^2. A tack coat may become necessary prior to placement of the asphalt and after placement of a prime coat. The Engineer will determine if such a tack coat is necessary using Section 300-8 as a guide. The tack coat, if required, shall be composed of and applied as set forth in Sections 300-1, 300-2, 300-4, 300-5 and 300-8. The Contractor shall request a determination from the Engineer concerning the need for a tack coat prior to initiating asphalt placement. In all cases, a tack coat is required at the joint face between cured asphalt and curbs or other concrete surfaces.

Costs for prime and tack coats are included in the cost of the overlaying asphalt, and no separate payment shall be made.

B. The Contractor is to construct Superpave Asphalt Concrete pursuant to Section 334, with quality control confirming with the requirements of Sections 105 and 330-2. The Contractor shall utilize Superpave, Traffic Level C, SP-12.5, fine mix with asphalt binder per FDOT Section 334-2.2. All Superpave mixes to meet FDOT Sections 320 and 330. Asphalt shall not, under any circumstances, be placed until the flowable fill, Prime Coat (and Tack Coat, if necessary) have been properly installed, tested and

inspected. Any flowable fill, or prime coat which becomes disturbed as a result of any activity, including acts of God, shall be restored prior to placement of asphalt, by the Contractor. The Contractor may choose any method or sequence of rolling the asphalt to achieve the required degree of compaction, however, any such method which is chosen must not cause undo displacement or blistering of the material and shall result in smooth consistent and a sealed surface which, when cooled and cured, will comply with all other requirements including line, grades, stability, etc. within these specifications. The Contractor is responsible for preventing traffic, or any other cause, from scarring or in any other way marring the finished asphalt until it is has had sufficient time to cool and cure. **Vibratory compaction is NOT Permitted.**

C. Asphaltic Concrete - Except as otherwise indicated in the plans and/or permits the asphaltic concrete to be used throughout the Work shall be FDOT Superpave Type SP-12.5 traffic level C for structural course (conforming to FDOT specifications for materials composition and method of manufacturer). Extraction and gradation analysis testing shall be performed on every mix in the field regardless of tonnage. Alternate types of asphalt shall not be allowed except as indicated above. An approved engineering laboratory test report confirming the composition and stability of the asphalt is required for each day and/or each mix asphalt as produced and placed at this site and must be provided to the Owner and/or Engineer by the engineering laboratory or Contractor. The placement of all asphalt shall, after grading, rolling, etc. conform to the finish line, grade, thickness and stability required in the specifications, plans and permits.

D. All cracks, pot holes, or other imperfections, if any, shall be repaired prior to resurfacing, including a leveling course, if necessary. All repair Work shall conform to FDOT specifications.

Construction of asphalt pavement shall be in accordance with FDOT Standard Specifications Sections 330-2.2, 330-8, 330-9, 330-10 and 330-12. The Contractor shall notify the Owner of the location and time for acceptance testing a minimum of 48 hours before beginning testing. Perform acceptance testing for surface tolerance on all pavement lanes where the width is constant and document all deficiencies on a form approved by the owner. Provide traffic control in accordance with Index Series 600 during all testing. Include the cost of this traffic control and testing in the contract quote price for the asphalt item.

Upon completion of the final surface, perform acceptance testing for surface tolerance on the finished surface with a 15 ft. rolling straight edge - correct all deficiencies in excess of 3/16-inch in accordance with FDOT Section 330-12.5.1.

The Contractor may select one of the following methods for correcting deficiencies as follows (at Contractor’s expense):

1. Removing and replacing: If correction is made by removing and replacing the pavement, remove and replace the full depth of the course and extend at least 50 ft. on both sides of the defective area for the full width of the paving lane (at Contractor's expense).

2. Overlaying: If correction is made by overlaying, cover the length of the defective area and taper uniformly to a feather edge thickness at a minimum distance of 50 ft. on both sides of the defective area. Extend the overlay the full width of the roadway. Maintain the specified cross slope. The Engineer or Owner may adjust, as necessary, the mix used for the overlay for this purpose.

The Contractor shall measure the cross-slope with a minimum frequency of one check every 100 feet during paving operations to ensure that the slopes are uniform and compliance with the designed slope. When the difference between the measured cross-slope and the design cross-slope exceeds ∀ 0.2% for travel lanes including turn lanes and ∀0.5% for shoulders make all corrections immediately to bring the cross-slope into an acceptable range. The Engineer or Owner will periodically verify the Contractor=s measurements at the job site, record all the measurements performed by the Contractor and submit to the Engineer/Owner for documentation. When the variance of cross-slope measurements is consistently within the acceptance range, the frequency of cross-slope checking can be reduced to one measurement every 250 feet during paving operations.

Density Testing will be in accordance with Section 334-5 of the FDOT Specifications.

For the Work specified under this section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. The pay quantity will be based on the project average spread rate, excluding overbuild, limited to a maximum of 105% of the spread rate; 110 LB/SY per one inch (1") thickness. The quote price for the asphalt mix will include the cost of the asphalt binder, asphalt cement, anti-stripping agent, blending and handling and the tack coat application as directed in FDOT Section 300-8, as well as any fiber stabilizing additive and hydrated lime (if required). There will be no separate payment or unit price adjustment for asphalt binder material in the asphalt mix.

Quote Item Nos.
570-1-3 Sod, Bahia – per SY
570-1-4 Sod, St. Augustine (contingency) – per SY

A. Sodding, water and fertilizer shall be in accordance with FDOT Sections 570, 981, 982 and 983. Sod for the project shall be Bahia. In locations where homeowner has St. Augustine sod, all replacement sod shall be St. Augustine sod. Sod to be pinned on slopes steeper than 3H:1V and where

indicated on plans. All costs of sod will be as shown on the quote forms. The contractor is responsible for all care, mowing, string trimming (slopes 3H:1V or steeper), watering, fertilizing of the sod (per FDOT specifications), and all other related Work necessary to complete the project (included in cost of sod quantity item). Sod shall be placed, typically within the limits of construction identified in the plans. Areas where storm drain pipe, inlets, mitered end sections, and swale regrading is required will require sodding adjacent to the structures. Additional sodding beyond the limits of construction, required by Owner, may be necessary and will be paid for based on actual final measurement. Quantity for sodding shown in quote forms is approximate based on projected regrading. Sod must be rooted to the ground, 95% minimum weed-free, and green, for final acceptance by Owner. Top of sod to be flush with edge of sidewalk and existing sod tie-in, and 1" below roadway edge of pavement (per FDOT Index 570-010). Cost for final preparation of earthwork, rock and debris removal, and any other activities and/or materials required prior to placement of sod shall be included in the contract quote price for sod.

Quote Item No.
700-1 Signing and pavement markings – per LS

A. The Work under this Section consists of placing traffic stripes and markings in accordance with the details shown in the plans, using a thermoplastic compound meeting the requirements specified herein.

B. All pavement markings not otherwise specified on plans shall be thermoplastic. Thermoplastic traffic striping and markings shall be in accordance with Section 711 of the FDOT Specifications.

C. The thermoplastic compound shall be extruded onto the pavement surface in a molten state by mechanical means, with surface application of glass spheres, when required, and upon cooling to ambient pavement temperatures, shall produce an adherent pavement marking of specified thickness and width, and capable of resisting deformation.

Where indicated in the plans, removal of existing striping shall be accomplished by grinding, unless otherwise approved by the Project Engineer or Owner. This item is considered incidental to the project and separate payment will not be made. All temporary pavement markings and temporary raised pavement markers (RPMs) shall be included in the quote price for maintenance of traffic.

Contractor shall furnish and install Class B (hard abrasion resistant lens) raised pavement markers (RPMs) meeting the requirements of FDOT

Sections 706 and 970. Apply RPMs to the bonding service using bituminous adhesives per FDOT Section 706-4 and 970-2. Contractor to furnish and install Amber/Amber and Red/Colorless RPMs and Blue Fox Fire Hydrant Locations where shown on the plans, and pursuant to FDOT Specifications and FDOT Index 706-001. Price and payment will be full compensation for all work specified in this section.

Quote Item No.
1050-31-208 8" PVC water main – per LF
1050-31-212 12" PVC water main – per LF
2050-31-208 8" PVC force main – per LF
3050-31-212 12" PVC reclaimed water main – per LF

A. The actual length of pipe installed shall be measured horizontally along the pipe centerline from the start of construction to its termination with no deduction made for valves and fittings. Pipe installation will be paid for at the applicable contract unit price per linear foot (LF) for the type of service, size and type of pipe, as listed in the Schedule of Prices, which price shall include the furnishing of all labor, materials, and equipment necessary to complete the Work, including all surveying, excavation, dewatering, pipe laying, jointing, marking tape and locating wire, thrust restraint, backfilling, compaction, surface restoration, planting removal/replacement, temporary hardscape relocation or support, 2" temporary jumper, connections to existing systems, removing excess material, disinfection, testing, clean-up, and all items necessary to construct the piping systems complete and ready for service unless specifically covered by other pay items specified under this Contract.

1. In addition to the above, pipe restraint shall include mechanical joint restraint and thrust blocking for fittings and pipe requiring restraint as identified in the contract documents.

2. In addition to the above, pipe installation shall include temporary relocation of existing mailboxes, signs, or any structures that may be in the way during pipe installation.

3. In addition to the above, pipe installation shall include structurally supporting of existing trees, poles, walls, etc., that may be in the way during pipe installation.

Quote Item No.
1050-41-214 Direct bore 14" HDPE (water main) – Per LF
2050-41-210 Direct bore 10" HDPE (force main) – Per LF
3050-41-214 Direct bore 14" HDPE (reclaimed water main) – Per LF

Furnish & install horizontal directional drilling of the size and location shown on the plans, and per Cocoa Utilities Department Technical Provisions Section 2.5.13.

Quote Item No.
1055-1 Water pipe fittings – per TN
2055-1 Force main fittings – per TN
3055-1 Reclaimed water main fittings – per TN

A. The actual number of tons of ductile iron fittings furnished and installed complete with joint accessories will be measured for payment. Tabulated fitting weights, with joint accessories, included in this Section and developed from ANSI/AWWA Standard C-110/A.21.10 (Standard Fitting Weights) and ANSI/AWWA Standard C-153/A21.53 (Compact Fitting Weights) shall be utilized to determine the weight of all fittings. The total weight for each size will be the sum of the individual reference weights of each installed fitting, expressed in tons (2000 pounds). Fittings will be paid for at the applicable contract unit price per ton as listed in the Schedule of Prices which price shall include the furnishing of all labor, material and equipment necessary to complete the Work, including excavation, dewatering, placing and jointing fittings to pipe, restraint devices, tie-rods or harness bands, testing , disinfecting, backfilling, compaction, temporary jumper connections, cleaning-up and all other operations necessary to complete the installation of the fittings.

Quote Item Nos.
1080-11-304 6" Gate valve (water main) – per EA
1080-11-404 12" Gate valve (water main) – per EA
2080-11-402 – 8” Gate valve (force main) – per Each
2080-11-406 Air/vac assembly (force main) – per EA
3080-11-404 12" Gate valve (reclaimed water main) – per EA

A. Payment for valves and appurtenances shall be based on the actual number of units installed in the locations shown on the plans or as directed by the Owner at the unit price of each (EA) as listed in the Schedule of Prices. Payment shall include costs for all labor and materials required for the installation complete. Valves and appurtenances shall include valve tags, valve boxes, bedding rock and concrete collars; flushing valves shall include all pipe, fittings, valve boxes, bedding rock, and concrete collars; back-flow assemblies shall include all pipe, fittings, valves, taps, etc. to make the necessary jumper connection. This pay item does not include valves for line tapping assemblies.

Quote Item Nos.
1080-11-402 8"×8" Wet tap (water main) – per EA
1080-11-403 12"×8" Wet tap (water main) – per EA
1080-11-405 30"×12" Wet tap (water main) – per EA
2080-11-403 12"×8" Wet tap (force main) – per EA
3080-11-403 12"×12" Wet tap (reclaimed water main) – per EA

A. The Work specified in this item consists of furnishing and installing water valve(s) and tapping tee(s) as indicated on the Drawings. The quantity for

payment will be made at the contract unit price of each (EA) as listed in the Schedule of Prices. Payment will be made for each type and size of valve acceptably furnished and installed. The unit price will include all cost of excavation and backfill, dewatering, sheeting, furnishing and installing water valves, valve boxes, tapping tees, mechanical restraining devices, concrete pads, and all other Work required for a complete and satisfactory installation as specified and shown on the Drawings. The unit price will also include the cost of recertifying existing back flow prevention devices that are being tapped and that are to remain in service as identified by the City.

Quote Item Nos.
1644-116-08 Fire Hydrant – per EA

A. Furnish and install fire hydrants at the plan locations, and per the City of Cocoa Utilities Department details and technical provisions

FITTING WEIGHTS WITH JOINT ACCESSORIES

A. The following tabulated fitting and joint accessory weights were developed from ANSI/AWWA Standard C-l 10/A2l.10 (Standard Fitting Weights) and ANSI/AWWA Standard C-l 53/A2 I .53 (Compact Fitting Weights). Compact fitting weights will be noted "(CF)". All thrust restraint devices and accessories shall be included in the unit price of pipe indicated as RJ (Restrained Joint) to the limits shown in drawings.

4-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	26 lb. (CF)	26 lb. (CF)
45°	22 lb. (CF)	22 lb. (CF)
22-1/2°	20 lb. (CF)	20 lb. (CF)
11-1/4°	20 lb. (CF)	20 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
4x3	35 lb. (CF)	---	39 lb.	--- lb.
4x4	36 lb. (CF)	---	45 lb. (CF)	--- lb.

Sleeves:	Short	Long
	19 lb. (CF)	25 lb. (CF)

Caps/Plugs:	Caps	Plugs
(Dished/Flat)	10 lb.	9 lb.

(CF) Compact Fitting Weights per ANSI/AWWA Standard Cl53/A2 l.53.

6-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	49 lb. (CF)	45 lb. (CF)
45°	39 lb. (CF)	38 lb. (CF)
22-1/2°	31 lb. (CF)	33 lb. (CF)
11-1/4°	29 lb. (CF)	32 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
6x3	51 lb.(CF)	--- lb.	--- lb.	--- lb.
6x4	52 lb.(CF)	--- lb.	62 lb.	--- lb.
6x6	66 lb.(CF)	--- lb.	79 lb. (CF)	--- lb.

Sleeves:	Short	Long
	28 lb. (CF)	39 lb. (CF)

Caps/Plugs: (Dished/Flat)	Caps	Plugs
	18 lb.	18 lb.

(CF) Compact Fitting Weights per ANSI/AWWA Standard CJ 53/A21.53.

8-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	64 lb. (CF)	64 lb. (CF)
45°	56 lb. (CF)	55 lb. (CF)
22-l/2°	50 lb. (CF)	51 lb. (CF)
11- 1/4°	45 lb. (CF)	44 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
8x4	72 lb. (CF)	--- lb.	84 lb. (CF)	--- lb.
8x6	79 lb. (CF)	79 lb.	98 lb. (CF)	--- lb.
8x8	90 lb. (CF)	83 lb.	112 lb. (CF)	--- lb.

Reducers:	MJ	PE	SEMJ-LEPE	LEMJ-SEPE
8x4	36 lb.(CF)	56 lb. (CF)	56 lb. (CF)	60 lb. (CF)
8x6	39 lb.(CF)	62 lb. (CF)	67 lb. (CF)	64 l

Sleeves:	Short	Long
	38 lb. (CF)	55 lb. (CF)

Caps/Plugs: (Dished/Flat)	Caps	Plugs
	26 lb.	25 lb.

(CF) Compact Fitting Weights per ANSI/AWWA Standard CJ53/A2l.53.

l0-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	102 lb. (CF)	108 lb. (CF)
45°	78 lb. (CF)	78 lb. (CF)
22-1/2°	66 lb. (CF)	66 lb. (CF)
11-1/4°	59 lb. (CF)	60 lb. (CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
10x4	82 lb. (CF)	--- lb.	98 lb. (CF)	--- lb.
10x6	99 lb. (CF)	--- lb.	121 lb. (CF)	--- lb.
10x8	116 lb. (CF)	--- lb.	135 lb. (CF)	--- lb.
10x10	132 lb. (CF)	133 lb.	156 lb. (CF)	--- lb.

Reducers:	MJ	PE	SEMJ-LEPE	LEMJ-SEPE
10x4	53 lb. (CF)	--- lb. (CF)	46 lb.(CF)	51 lb.(CF)
10x6	59 lb. (CF)	49 lb. (CF)	48 lb.(CF)	52 lb.(CF)
10x8	54 lb. (CF)	47 lb. (CF)	52 lb.(CF)	52 lb.(CF)

Sleeves:	Short	Long
	48 lb. (CF)	68 lb. (CF)

Caps/Plugs:	Caps	Plugs
(Dished/Flat)	32 lb.	36 lb.

(CF) Compact Fitting Weights per ANSI/ AWWA Standard C 153/A21 .53.

12-INCH DUCTILE IRON FITTING WEIGHTS WITH JOINT ACCESSORIES

Bends:	MJ	MJ-PE
90°	129 lb.(CF)	114 lb.(CF)
45°	102 lb.(CF)	104 lb.(CF)
22-1/2°	87 lb.(CF)	89 lb.(CF)
11-1/4°	82 lb.(CF)	79 lb.(CF)

Tees and Crosses:	Tees		Crosses	
	MJ	MJ-PE	MJ	MJ-PE
12x4	108 lb. (CF)	--- lb.	119 lb. (CF)	--- lb.
12x6	119 lb. (CF)	--- lb.	138 lb. (CF)	--- lb.
12x8	126 lb. (CF)	--- lb.	149 lb. (CF)	--- lb.

12x10	159 lb. (CF)	--- lb.	189 lb. (CF)	--- lb.
12x12	171 lb. (CF)	--- lb.	202 lb. (CF)	--- lb.

Reducers:	MJ	PE	SEMJ-LEPE	LEMJ-SEPE
12x4	67 lb. (CF)	60 lb. (CF)	61 lb.(CF)	68 lb.(CF)
12x6	64 lb. (CF)	54 lb. (CF)	58 lb.(CF)	66 lb.(CF)
12x8	57 lb. (CF)	60 lb. (CF)	62 lb.(CF)	65 lb.(CF)
12x10	63 lb. (CF)	57 lb. (CF)	61 lb.(CF)	65 lb.(CF)

Sleeves:	Short	Long
	62 lb. (CF)	81 lb. (CF)

Caps/Plugs:	Flat	Dished
	109 lb.	109 lb.

(CF) Compact Fitting Weights per ANSI/ AWWA Standard C 153/A21 .53.

1.04 PIGGING AND FLUSHING

A. The City of Cocoa Utilities Department requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be use as a guide and in no way to be construed as means and methods.

The following terminology may be use in the discussion or operation of the pigging procedure.

Pigs shall be manufactured of a 2lb. per cu/ft density open cell polyurethane foam body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a “wye”, “tee” or simple inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a “wye”, “tee” or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4”; 180 gpm for 6”; 320 gpm for 8”. Flow rates and jumper assemblies for mains 10” and larger will be determined by the Engineer of Record and approved by the City of Cocoa Utilities Department.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Utilities Department. The contractor will be

responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the "swab" into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of Utility personnel to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete, if not flushing will continue until water is clear.

1.05 WORK NOT LISTED IN QUOTE SCHEDULE

A. The General Conditions and items in the special provision, general requirements, and Specifications which are not listed in the Quote Schedule are, in general, applicable to more than one listed Work item, and no separate payment is provided therefore. Include the cost of Work not listed, but necessary to complete the project designated in the Contract Documents, in the various listed quote items.

B. The quotes for the Work are intended to establish a total cost for the Work in its entirety. Should the Contractor feel that the cost for the Work has not been established by specific items in the Quote Schedule, he shall include the cost for that Work in some related quote item so that his proposal for the project does reflect his total cost for completing -the Work in its entirety.

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01030

SPECIAL PROJECT PROCEDURES

PART 1- GENERAL

1.01 PUBLIC NUISANCE

A. The Contractor will not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.

B. No extra charge may be made for time lost due to Work stoppage resulting from the creation of a public nuisance.

1.02 SPECIAL REQUIREMENTS

A. The following requirements will govern:

1. No additional payment will be made for pumping or other difficulties encountered due to water. This will include difficulties related to both groundwater and stormwater or stormwater runoff
2. Contractor shall provide notification to FDOT and Brevard County per their permits. The FDOT permit includes requirements for Brightline notification.
3. The Contractor will, prior to interrupting a utility service (water, sewer, etc.) for the purpose of making cut-ins to the existing lines or for any other purposes, provide 48 hour written notification to affected customers, Brevard County, and City of Cocoa Field Operations Personnel. All valves will be operated by the Owner's personnel.
4. From investigations, including surveys made at the site, it may be assumed that physical conditions are approximately as indicated on the Drawings, but the nature of the materials below the surface, or the depth to satisfactory foundations, are not guaranteed. The Contractor is to satisfy himself as to the location, type, material and depth of all improvements impacted by the proposed construction.
5. Certain information regarding the reputed presence, size, character and location of existing underground structures, pipes and conduits has been shown on the Contract Drawings. There is no certainty of the accuracy of this information, and the location of underground structures shown may be inaccurate and other obstructions than those shown may be encountered. The Contractor hereby distinctly agrees that the Owner and Engineer are not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; and that in no event is this information to be considered as a part of the Contract; and that consideration for equitable compensation will be made for conditions materially different from those shown on the Drawings, as determined by the Owner/Engineer/ It shall be the Contractor’s

responsibility to verify the location of existing utilities. Deviations shall be promptly reported to the Owner and Engineer.

6. The Contractor will, prior to removal of existing water main, shut off flow to existing water main for a 48 hour period to verify all service connections have been cut over to new water main. Any existing line shutoffs shall occur before noon and not on Fridays or weekends.

1.03 EXISTING UTILITIES

A. Contractor is responsible for locating and protecting all existing underground and overhead utilities.

B. Any utility conflicts are to be promptly reported to the City and the Engineer.

C. Costs for any required FPL pole holds or any other utility company coordination efforts are incidental to the project. Contractor is to include all such costs in the unit price for utility infrastructure installation. No separate payment will be made.

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION (NOT USED)

*****END OF SECTION*****

SECTION 01041

PROJECT COORDINATION

PART 1 - GENERAL

1.01 WORK INCLUDED

A. Furnish personnel and equipment that will be efficient, appropriate and large enough to secure a satisfactory quality of Work and a rate of progress that will ensure the completion of the Work within the Contract Time. If at any time such personnel appear to the Owner to be inefficient, inappropriate or insufficient for securing the quality of Work aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor will conform to such order. Failure of the Owner to give such order will in no way relieve the Contractor of his obligations to secure the quality of the Work and rate of progress.

1.02 PRIVATE LAND

A. The Contractor will not enter or occupy private land outside of easements, except by prior written permission of the owner of such private property and the Owner.

1.03 PIPE LOCATIONS

A. Pipelines will be constructed substantially as indicated on the Drawings, but the Owner reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. Where fittings are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different or additional fittings where required. Hydrants are intended to be constructed within existing Rights of Way or Easements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 COOPERATION WITH THIS CONTRACT

A. The Contractor will be responsible for coordinating all subcontractors and trades and for incorporating the Work of all subcontractors or trades where necessary and as required.

B. Cutting and patching, drilling and fitting will be carried out where required by the trade or subcontractor having jurisdiction, however, the Contractor will be solely responsible for this Work.

C. Contractor is responsible for coordination with all utility companies and right-of-

way representatives, and cooperation in protecting existing utilities, to minimize service disruptions for any existing utilities.

3.02 PROTECTION OF CONSTRUCTION AND EQUIPMENT

A. All newly constructed Work will be carefully protected from damage in any way. All portions damaged will be reconstructed by the Contractor at his expense.

B. Protect all structures in a suitable manner to prevent damage. Should any part of a structure become heaved, cracked or otherwise damaged, all such damaged portions of the Work will be completely repaired and made good by the Contractor at his own expense and to the satisfaction of the Owner. If in the final inspection of the Work, any defects, faults or omissions are found, the Contractor will cause the same to be repaired or removed and replaced by proper materials and Workmanship without extra compensation for the materials and labor required. Further, the Contractor will be fully responsible for the satisfactory maintenance and repair of the construction and other Work undertaken herein and any damages caused by the performance of the Work, for at least the warranty period described in the Contract.

*****END OF SECTION*****

SECTION 01050

FIELD ENGINEERING

PART 1- GENERAL

1.01 WORK INCLUDED

A. Provide and pay for field engineering services required for Project.

1. Survey Work required in execution of Project.
2. Civil, structural or other professional engineering services specified or required to execute Contractor's construction methods.
3. The method of field staking for the construction of the Work will be at the option of the Contractor.
4. The accuracy of any method of staking will be the responsibility of the Contractor. All engineering for vertical and horizontal control will be the responsibility of the Contractor.
5. The Contractor will be held responsible for the preservation of all stakes and marks. If any stakes or marks are carelessly or willfully disturbed by the Contractor or the public, they will be replaced at no cost to the Owner. The Contractor will not proceed with any Work until he has established such points, marks, lines and elevations as may be necessary for the prosecution of the Work.

B. Where survey Work is required to execute the Contractor's construction methods, the Contractor will retain the services of a registered land surveyor licensed in the State of Florida for that Work.

1.02 PERMITS AND LICENSES

A. The Contractor will obtain and pay for all permits and licenses related to his Work as required by laws or regulations and as provided for in the Conditions of the Contract except as specified in Section 01065.

PART 2- PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01065

PERMITS AND FEES

PART 1- GENERAL

A. The Contractor will obtain and pay for all permits and licenses related to his Work as provided for in the Conditions of the Contract except as otherwise provided herein.

B. Permits by Owner: The Owner has obtained the following permits related to the proposed Work.

1. Florida Department of Environmental Protection General Permit for Construction of Water Main Extensions 0124889-1014-DSGP, Dated August 8, 2017.
2. Florida Department of Transportation Utility Permit # 2017-H-590-175, Dated September 1, 2017.
3. Brevard County Right-of-Way Use Permit #21RW01502, Dated November 18, 2022.

C. See attached Appendix "A" for copy of Permits

PART 2 - PRODUCTS (NOT USED)

PART 3 -EXECUTION (NOT USED)

**** END OF SECTION****

SECTION 01070
ABBREVIATIONS AND SYMBOLS

PART 1 - GENERAL

A. Referenced Standards: Any reference to published specifications or standards of any organization or association will comply with the requirements of the specification or standard which is current on the date of Advertisement for Quotes. In case of a conflict between the referenced specifications or standards, the one having the more stringent requirements will govern. In case of conflict between the referenced specifications or standards and the Contract Documents, the Contract Documents will govern.

B. Abbreviations:

AA	-	Aluminum Association
AASHTO or	-	American Association of State Highway & Transportation Officials
AASHO	-	The American Association of State Highway Officials
ABPA	-	Acoustical and Board Products Association
ACI	-	American Concrete Institute
AGA	-	American Gas Association
AGMA	-	American Gear Manufacturers Association
AI	-	The Asphalt Institute
AIEE	-	American Institute of Electrical Engineers (Now IEEE)
AIMA	-	Acoustical and Insulating Materials Association
AISC	-	American Institute of Steel Construction
ANSI	-	American National Standard Institute
API	-	American Petroleum Institute
APWA	-	American Public Works Association
AREA	-	American Railway Engineering Association
ASA	-	American Standards Association (Now ANSI)
ASCE	-	American Society of Civil Engineers
ASHRAE	-	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	-	American Society of Mechanical Engineers
ASCBC	-	American Standard Safety Code for Building Construction
ASTM	-	American Society for Testing and Materials
AWPA	-	American Wood Preservers Association
AWPB	-	American Wood Preservers Bureau
AWS	-	American Welding Society
AWWA	-	American Water Works Association
CRSJ	-	Concrete Reinforcing Steel Institute
CS	-	Commercial Standard
DOT Spec.	-	Standard Specifications for Road and Bridge Construction, Florida Department of Transportation

E/A	-	Engineer and/or Architect
FS	-	Federal Standards
GPM	-	Gallons Per Minute
FDEP	-	Florida Department of Environmental Protection
FDOT	-	Florida Department of Transportation
HP	-	Horsepower
ID	-	Inside Diameter
IEEE	-	Institute of Electrical and Electronic
IPCEA	-	Engineers Insulated Power Cable
NBFU	-	Engineers Association National Board of Fire Underwriters
NBS	-	National Bureau of Standards
NEC	-	National Electrical Code
NECA	-	National Electrical Contractors' Association
NEMA	-	National Electrical Manufacturers' Association
NFPA	-	National Fire Protection Association
NPT	-	National Pipe Threads
NSF	-	National Sanitation Foundation
OD	-	Outside Diameter
OSHA	-	U.S. Department of Labor, Occupational Safety and Health Association
PCA	-	Portland Cement Association
PCI	-	Prestressed Concrete Institute
PS	-	United States Products Standards
PSIG	-	Pounds Per Square Inch Gauge
RPM	-	Revolutions Per Minute
SAE	-	Society of Automotive Engineers
SDI	-	Steel Decks Institute
SJI	-	Steel Joists Institute
SMACNA	-	Sheet Metal and Air Conditioning Contractors' National Association
SSPC	-	Structural Steel Painting Council
STA	-	Station
TDH	-	Total Dynamic Head
UL	-	Underwriter's Laboratories, Inc.
USASI or USAS	-	United States of American Standards Institute (Now ANSI)

C. Additional abbreviations and symbols are shown on the Drawings.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01152

APPLICATIONS FOR PROGRESS PAYMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Submit Applications for Progress Payments to Owner in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.

1.02 RELATED REQUIREMENTS

A. Agreement between Owner and Contractor.

B. Conditions of the Contract: Progress Payments, Retainages and Final Payment.

1.03 FORMAT AND DATA REQUIRED

A. Submit applications typed on forms provided by the Owner.

B. Supporting Data

1. To receive approval for payment for materials stored but not incorporated into the Work, submit the following appended to the Application for Payment.

    a. Copies of delivery tickets.
    b. Copies of vendor invoices (which match delivery tickets) included with the Application for Payment in which the materials first appear.
    c. Copies of paid vendor invoices from the previous application showing that Contractor has paid for stored materials. Owner may deduct amounts from current Application for Payment where Contractor fails to provide proof of payment for stored materials claimed in previous Applications.
    d. Unless covered and included by a Change Order, the quantities of materials listed on the Quote Form represent the maximum payable for stored materials.
    e. Updated copy of the Progress Schedule.

1.04 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

A. When the Owner requires substantiating data, Contractor will submit suitable information, with a cover letter identifying:

1. Project.

2. Application number and date.
3. Detailed list of enclosures.
4. For stored products :
    a. Item number and identification as shown on Application.
    b. Description of specific material.

B. Submit one copy of data and cover letter for each copy of application.

C. In addition, the Contractor's up-to-date mark-up set of contract drawings, as specified in Section 01720, will be made available for review. If the mark-up set is not up-to- date, it will be considered cause for withholding payment.

D. Final payment will not be made until the Contractor has prepared and submitted to the Owner complete as-built plans.

E. Updated construction schedule

1.05 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

A. Fill in Application form as specified for progress payments.

B. Use continuation sheet for presenting the final statement of accounting.

1.06 SUBMITTAL PROCEDURE

A. Submit Application for Payment to the Owner at the times stipulated in the Agreement.

B. Number: Seven copies of each Application, all originally signed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

****END OF SECTION****

SECTION 01200

PROJECT MEETINGS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. Project meetings will be held prior to and during construction of the project. Meetings, scheduling, attendance and agenda will be as indicated in this Section, below.

1.02 DESCRIPTION

A. The Owner or their Representative will schedule and administer the preconstruction meeting.

B. The Owner or their Representative will schedule and administer periodic progress meetings and specifically called meetings throughout the progress of the Work. The Owner will prepare agenda for these meetings, distribute written notice of each meeting seven days in advance of the meeting date, and make physical arrangements for the meetings. The Owner will preside at the progress meetings, record the minutes, including all significant proceedings and decisions. The Owner will reproduce and distribute copies of minutes within seven (7) days after each meeting to all participants in the meeting and to all parties affected by decisions made at the meeting.

C. Representatives of contractors, subcontractors and suppliers attending meetings will be qualified and authorized to act on behalf of the entity each represents.

D. The Owner will attend progress meetings to ascertain that Work is expedited consistent with the Contract Documents and the construction schedules.

E. Related Requirements:

1. Section 01010: Summary of Work
2. Section 01310: Construction Schedules
3. Section 01340: Shop Drawings, Product Data, and Samples
4. Section 01720: Project Record Documents

PART 2- PRODUCTS (NOT USED)

PART 3- EXECUTION

3.01 PRECONSTRUCTION MEETING

A. The Owner will schedule the meeting within fifteen (15) days after Notice of Award of Contract.

B. The location of the meeting will be designated by the Owner

C. The following parties will attend the meeting:

1. Owner's Representative
2. Resident Project Representative
3. Contractor's Superintendent
4. Others as appropriate.

D. Suggested Agenda:

1. Distribution and discussion of:
   a. List of major subcontractors and suppliers
   b. Projected Construction Schedules
2. Critical Work sequencing
3. Major equipment deliveries and priorities
4. Project coordination
   a. Designation of responsible personnel
5. Procedures and processing of:
   a. Field decisions
   b. Proposal requests
   c. Submittals
   d. Change Orders
   e. Applications for Payment
6. Adequacy of distribution of Contract Documents
7. Procedures for maintaining Record Documents
8. Use of premises: Owner's requirements
9. Construction facilities, controls and construction aids
10. Temporary utilities
11. Safety and first aid procedures
12. Security procedures
13. Liquidated damages
14. Substantial completion
15. Final completion

3.02 PROGRESS MEETINGS

A. The Owner may schedule regular weekly progress meetings and will conduct called meetings as required by progress of the Work.

B. The meetings will be held at the field office of the Contractor or at other locations made available by the Contractor.

C. The following parties will attend the meetings:

1. Owner and any professional consultants as needed.
2. Contractor’s Superintendent.
3. Others as required.

D. Suggested Agenda:

1. Review approval of minutes of previous meeting.
2. Review of Work progress since previous meeting.
3. Field observations, problems, and/or conflicts.
4. Problems that impede Construction Schedule.
5. Review of off-site fabrication, delivery schedules.
6. Corrective measures and procedures to regain projected schedule.
7. Revisions to Construction Schedule.
8. Plan progress schedule during succeeding Work period.
9. Coordination of schedules.
10. Review submittal schedules; expedite as required.
11. Maintenance of quality standards.
12. Review proposed changes for:
    a. Effect on Construction Schedule and on completion date.
    b. Effect on other components of the Project.
13. Other business.
14. Estimates for progress payment.

*****END OF SECTION*****

SECTION 01310

CONSTRUCTION SCHEDULES

PART 1- GENERAL

1.01 CONSTRUCTION SCHEDULE

A. Initial Construction Schedule

1. Promptly after Award of the Contract, the Contractor will prepare and submit to the Owner construction schedules for the Work, with schedules of related activities that are essential to its progress. Approval of the initial construction schedule is required prior to the issuing of the Notice to Proceed.

B. Revised Construction Schedules

1. The Contractor will submit revised construction schedules at monthly progress meetings.

1.02 FORM OF SCHEDULES

A. Prepare schedules in the form of a horizontal bar chart.

1. Provide separate horizontal bar for each trade or operation.
2. Horizontal time scale: Identify the first Work day of each week.
3. Scale and spacing: Allow ample space for notations and future revisions.

B. Format of listings will be the chronological order of the start of each item of Work.

1.03 CONTENT OF SCHEDULES

A. Construction Schedule:

1. Show the complete sequence of construction by activity.
2. Show the dates for the beginning and completion of each major item of construction, as listed in the Quote Proposal.
3. Provide a Cash Flow Projection for each item, as of the first day of each month.

B. Submittals Schedule for Shop Drawings, Product Data and Samples. Show:

1. The dates for Contractor's submittals.
2. The dates reviewed submittals will be required from the Owner.

1.04 PROGRESS REVISIONS

A. Indicate progress of each activity to date of submission.

B. Show changes occurring since previous submission of schedule.

1. Major changes in scope.
2. Activities modified since previous submission.
3. Revised projections of progress, cash flow and completion.
4. Other identifiable changes.

C. Provide a narrative report as needed to define:

1. Problem areas, anticipated delays, and the impact on the schedule.
2. Corrective actions recommended and the effects thereof.

1.05 SUBMISSIONS

A. Submit initial schedule within seven (7) calendar days after Award of Contract.

1. Owner will review schedules and return reviewed copy within five (5) days after receipt.
2. If required, resubmit within five (5) days after return of the review copy.

D. Submit revised schedules with each Application for Payment. Failure to submit accurate schedules will be cause for withholding of payment to the Contractor.

E. Submit the number of copies the Contractor requires, plus two copies to be retained by the reviewer and one copy for the Owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

*****END OF SECTION*****

SECTION 01315

AUDIO-VISUAL DOCUMENTATION

PART 1- GENERAL

1.01 SCOPE OF WORK

A. Prior to commencing Work, and at the completion of the work the Contractor shall have a continuous color audio-visual tape recording taken along the entire length of the proposed project to serve as a record of pre-construction conditions.

1.02 CONSTRUCTION SCHEDULE

A. Tape recordings shall not be made more than 30 days prior to construction in any area. No construction shall begin prior to review and approval of the tapes covering the construction area by the Owner. The Owner shall have the authority to reject all or any portion of a videotape not conforming to specifications and order that it be redone at no additional charge. The Contractor shall reschedule unacceptable coverage within five days after being notified. The Owner shall designate those areas, if any, to be omitted from or added to the audiovisual coverage. All tapes and written records shall become property of Owner. The final delivery method of the audiovisual coverage shall be through download via Microsoft OneDrive or equivalent.

1.03 PROFESSIONAL ELECTROGRAPHERS (VIDEOGRAPHERS)

A. The Contractor shall engage the services of a professional electrographer. The color audio-visual tapes shall be prepared by a responsible commercial firm known to be skilled and regularly engaged in the business of pre-construction color audio-video tape documentation. The electrographer shall furnish to the Owner a list of all equipment to be used for the audio-video taping, i.e. manufacturer's name, model number, specifications and other pertinent information. Additional information to be furnished by the electrographer shall include the names and addresses of two references for whom the electrographer has performed color audio-visual taping.

PART 2 - PRODUCTS

2.01 GENERAL

A. The total audio-video system and the procedures employed in its use shall be such as to produce a finished product that will fulfill the technical requirements of the project. The video portion of the recording shall produce bright, sharp, clear pictures with accurate colors and shall be free from distortion, tearing, rolls or any other form of picture imperfection. All video recordings shall, by electronic means, display on the screen the time of day, and the month, day and year of the recording. This time and date information must be continuously and simultaneously generated with the actual recording. The audio portion of the

recording shall produce the commentary of the camera operator with proper clarity and be free from distortion.

B. The recording system shall utilize AIA Standard Video and NTSC compatible color (American TV Standard).

PART 3 - EXECUTION

3.01 COVERAGE

A. The recordings shall contain coverage of all surface features located within the construction's zone of influence. The surface features within the construction's zone of influence shall include, but not be limited to, all roadways, pavement, detention ponds, walls, railroad tracks, curbs, driveways, sidewalks, culverts, headwalls, retaining walls, buildings, landscaping, trees, shrubbery, mail boxes and fences. The existence or non-existence of any faults, fractures or defects shall be of particular concern. Taped coverage shall be limited to one side of the street at any one time and shall include all surface conditions located within the zone of influence supported by appropriate audio description. Panning, zoom-in and zoom-out rates shall be sufficiently controlled to maintain a clear view of the object. A representative of the Owner shall be present during all audio-visual documentation Work. The Contractor shall give the Owner 48 hours notice prior to initiating the audio-visual documentation Work.

3.02 AUDIO CONTENT

A. Accompanying the video recording of each videotape shall be a corresponding and simultaneously recorded audio recording. This audio recording, exclusively containing the commentary of the camera operator, shall assist in viewer orientation and in any needed identification, differentiation, clarification, or objective description of the features being shown in the video portion of the recording. The audio recording shall also be free from any conversations between the camera operator and any other production technicians.

3.03 VIDEO TAPE INDEXING

A. Video Tape Identification: All video tapes shall be permanently labeled and shall be properly identified by video tape number and project title.

B. Video Tape Log: Each video tape shall have a log of that video tape's contents. The log shall describe the various segments of coverage contained on that video tape in terms of the names of the streets or easements, coverage beginning and end, directions of coverage, video unit counter numbers, engineering stationing numbers, addresses and the date.

3.04 TIME OF EXECUTION

A. Visibility: All recording shall be performed during times of good visibility. No

recording shall be done during periods of significant precipitation, mist, or fog. The recording shall only be done when sufficient sunlight is present to properly illuminate the subject and to produce bright, sharp video recordings of those subjects. No taping shall be performed when more than 10% of the area to be taped contains debris or obstructions unless otherwise authorized by the Owner.

3.05 CONTINUITY OF COVERAGE

A. In order to increase the continuity of the coverage, the coverage shall consist of a single continuous unedited recording which begins at one end of a particular construction area. However, where coverage is required in areas not accessible by conventional wheeled vehicles and smooth transport of the recording system is not possible, such coverage shall consist of an organized interrelated sequence of recordings at various positions along that proposed construction area (e.g., wooded easement area). Such coverage shall be obtained by walking or by a special conveyance approved by the Owner

3.06 COVERAGE RATES

A. The average rate of travel during a particular segment of coverage *(e.g.* coverage of one side of a street) shall be directly proportional to the number, size, and value of the surface features within that construction area's zone of influence but not greater than 44 feet per minute.

3.07 CAMERA OPERATION

B. Camera Height and Stability: When conventional wheeled vehicles are used as conveyances for the recording system, the vertical distance between the camera lens and the ground shall not exceed l 0 feet. The camera shall be firmly mounted such that the transport of the camera during the recording process will not cause an unsteady picture.

C. Camera Control: Camera pan, tilt, zoom-in and zoom-out rates shall be sufficiently controlled such that recorded objects will be clearly viewed during video tape playback. In addition, all other camera and recording system controls, such as lens focus and aperture, video level, pedestal, chrome, white balance, and electrical focus shall be properly controlled or adjusted to maximize picture.

D. Viewer Orientation Techniques: The audio and video portions of the recording shall maintain viewer orientation. Views and visual displays of all visible house and business addresses shall be utilized. In easements where the proposed construction location will not be readily apparent to the video tape viewer, highly visible yellow flags shall be placed, by the Contractor, in such fashion as to clearly indicate the proposed center line of construction.

**** END OF SECTION ****

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1- GENERAL

1.01 WORK INCLUDED

A. The Contractor will submit shop drawings, product data and samples as required by the Contract Documents.

B. Related Requirements

1. Section 01310: Construction Schedules

1.02 SCHEDULING

A. Designate in a separate coordinated schedule, the dates for submission of shop drawings, product data and samples and the dates by which reviewed shop drawings, product data and samples will be returned.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SHOP DRAWINGS AND PRODUCT DATA

A. Submit shop drawings and product data in accordance with the requirements of this Section. Shop drawings and product data are required in accordance with the submittal instructions of the material and equipment specifications.

B. Submit shop drawings and product data for additional items of Work necessary for the successful completion of the project.

C. Shop drawings will consist of such detailed plans as may be required for the prosecution of the Work not included in the Drawings. All necessary shop drawings will be furnished by and through the Contractor.

3.02 CONTRACTOR'S RESPONSIBILITIES

A. Approve shop drawings, product data and samples prior to submission.

B. Determine and verify:

1. Field measurements and quantities.
2. Field construction criteria.
3. Materials of construction.
4. Catalog numbers and similar data.
5. Conformance with specifications.

C. Coordinate each submittal with requirements of the Work of other submittals and of the Contract Documents.

D. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.

E. Notify the Owner in writing, at time of submission, of any deviations in the submittals from the requirements of the Contract Documents in order that if the deviations are deemed acceptable, suitable action may be taken for proper adjustment. Otherwise, the Contractor will not be relieved of the responsibility for executing the Work in accordance with the Drawings and Specifications even though such shop drawings have been reviewed by the Owner.

F. Fabrication or Work that requires submittals will not begin until return of submittals after the Owner's review.

G. Keep one set of approved and reviewed shop drawings on the job site at all times.

H. Produce the required shop drawings.

3.03 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with approved schedule and in such sequence as not to cause delay in the Work or in the Work of any subcontractor. Provide no less than fourteen (14) days for Owner's review.

B. Number of submittals required:

1. Shop drawings and product data: The Contractor will submit copies of shop drawings submittals, and manufacturer's brochures or catalogs to the Engineer via email, for approval by the Engineer and the City.

C. Each submission must be accompanied by a consecutively numbered letter of transmittal in duplicate, identifying each item by reference to Specification Section or Drawing Number, and containing the following:

1. The Project title and number.
2. Contract identification.
3. Submittal number.
4. The date of submission and the dates of any previous submissions.
5. The names of:
   a. Contractor
   b. Supplier
   c. Manufacturer
6. Identification of the product with the Specification Section number.
7. Field dimensions, clearly identified as such.
8. Relation to adjacent or critical features of the Work or materials.
9. Applicable standards, such as ASTM, AWWA, ANSI or Federal Specification numbers.

10. Identification of deviations from Contract Documents.
11. Identification of revisions on resubmittals.
12. Contractor's stamp will be initialed or signed, certifying to approval of the submittal, to the verification of products, field measurements and field construction criteria, and to the coordination of the information within the submittal with the requirements of the Work and of Contract Documents.

D. Catalog plates and other similar materials that cannot be conveniently labeled will be bound in suitable covers bearing the identifying data.

E. Shop drawings will be accompanied by all required certifications and other such supporting materials, and will be submitted in such sequence or in such groups that all related items may be reviewed together. When shop drawings cannot be reviewed because the submission is not complete, or because related shop drawings or items have not been received, such shop drawings will be returned without action or will be held until the lacking materials are received.

F. Other special requirements may be listed in the Specifications and/or given to the Contractor at the preconstruction conference.

3.04 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Owner and Engineer and resubmit for review.

B. Shop drawings and product data:

1. Revise initial drawings or data and resubmit as specified for the initial submittal.

2. Indicate any changes that have been made other than those requested by the Owner.

3. Review of shop drawings or product data by the Owner in excess of twice (two times) for the same article may subject the Contractor to additional costs to cover Owner's additional services. In such cases, Contractor will be billed by Owner for the services and the cost thereof will be deducted from amounts due the Contractor under the Contract.

C. Time lost due to resubmittal of drawings shall not be cause for delay or time lost claims.

3.05 DISTRIBUTION

A. Distribute shop drawings and product data that have been reviewed by the Owner to:

1. Contractor's file
2. Job site file

3. Owner's Inspector
4. Other, as requested by Owner.

3.06 OWNER'S DUTIES

A. Review submittals with reasonable promptness, and in all cases within two weeks of receipt, and in accordance with the shop drawing schedule.

B. Affix stamp and initials or signature, and indicate whether the review is complete or resubmittal is required.

C. Return submittals to the Contractor for distribution or for resubmission on.

3.07 REVIEW OF DRAWINGS

A. Review of shop drawings will be general for conformance with the design concept of the project and compliance with the information given in the Contract Documents and will not include verification of quantities, detailed dimensions, nor adjustments of dimensions to actual field condition s. Review will not be construed as permitting any departure from the Contract requirements, as authorization of any increase in price, nor as relieving the Contractor of the responsibility for any error in detail s, dimensions , or otherwise that may exist.

B. Review by the Owner of the Contractor's shop drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details. The Contractor will be responsible for agreement and conformity of his shop drawings with the Drawings and Specifications.

3.08 CERTIFICATES OF COMPLIANCE

A. A Certificate of Compliance will be furnished for materials specified to a recognized standard or code prior to the use of any materials specified for the Work. The Owner may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The Certificate will be signed by the manufacturer of the material or the manufacturer of assembled materials and state that the materials comply in all respects with the requirements of the Specifications. A Certificate of Compliance will be furnished with each lot of material delivered to the Work and the lot so certified will be clearly identified in the Certificate.

B. All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that a material is used on the basis of a Certificate of Compliance will not relieve the Contractor of any responsibility for incorporating material in the Work that conforms to the requirements of the Contract Documents and any such material not conforming to the requirements will be subject to rejection whether in place or not.

C. The Owner reserves the right to refuse permission for use of material on the basis

of a Certificate of Compliance.

**** END OF SECTION ****

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 CONSTRUCTION UTILITIES

A. The Contractor will arrange with the power company, if necessary, to obtain temporary electrical service for construction purposes.

B. The Contractor will pay all power company installation and use charges for the electrical energy utilized for temporary power and light.

C. The Contractor will make arrangements at the Contractor's expense for obtaining the water supply necessary for construction purposes, and will pay for all water consumed during construction.

1.02 TEMPORARY BUILDINGS

A. The Contractor may build or move onto a central site temporary buildings or other structures for housing personnel, tools or machinery and supplies. All such structures required by the Contractor will be at a location approved by the Owner. The Contractor will maintain the surroundings of all on-site buildings and facilities in a sanitary and satisfactory manner at all times. On or before the completion of the Work, all such structures will be removed, together with all rubbish and trash, at the expense of the Contractor.

1.03 REMOVAL

A. The Contractor will remove temporary facilities from the site of the Work when so notified by the Owner.

1.04 CLEAN-UP

A. Upon completion of the Work, all excess material and rubbish will be removed from the job site, and any off-site locations used, and disposed of in a lawful manner and in accordance with the Contract Documents. The surrounding construction area, easements, and any other effected grounds will be left in a condition as good or better than existed prior to construction. Any remedial actions, measures or reconstruction of damaged properties will be accomplished at the Contractor's expense.

1.05 USE OF PREMISES

A. The Contractor will confine all company apparatus, the storage of materials and the operations of all Workers to the limits defined by laws, ordinances, permits, or

directions of the Owner and will not unduly encumber the premises with any materials.

B. The Contractor will enforce the instructions of the Owner regarding signs, advertisements, fire, and safety.

1.06 SOIL EROSION

A. The Contractor will take all required and necessary actions to prevent siltation and soil erosion during construction.

1.07 ACCESS ROADS

A. Streets, roads, and drives used by the Contractor for access to and from the site of the Work will be protected from damage. Any such damage done will be repaired and left in good condition at the end of the construction period. Upon completion of construction, access areas and temporary easements will be restored to the pre-construction condition at no additional cost to the Owner.

1.08 MAINTENANCE DURING CONSTRUCTION

A. The Contractor will maintain, at his expense, the Work during construction and until final acceptance of all Work under the Contract.

B. In the event the Contractor fails to remedy any unsatisfactory situation within twenty-four (24) hours after receipt of written notice from the Owner describing the unsatisfactory conditions, the Owner may immediately proceed with adequate forces and equipment to maintain the project, and the entire cost of this maintenance will be deducted from the monies otherwise due the Contractor under the Contract.

C. As an alternative to the above specified maintenance, the cost of all of the items that are not properly maintained may be deducted at the Contract Prices from the current partial payment request even if such items have been paid for in previous estimates.

1.09 SANITARY FACILITIES

A. The Contractor will provide and maintain temporary sanitary accommodations for the use by its employees, the Owner, and those of its subcontractors as may be necessary to comply with health requirements and regulations and as directed by the Owner. No nuisance will be permitted from these accommodations.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01568

TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1- GENERAL

1.01 DESCRIPTION

A. Scope of Work:

1. The Work specified in this Section consists of designing, providing, maintaining and removing temporary erosion and sedimentation controls as necessary.

2. Temporary erosion controls include, but are not limited to, grassing, mulching, netting, watering and reseeding on-site surfaces and soil and borrow area surfaces, and providing interceptor ditches at end of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the regulatory agencies having jurisdiction.

3. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the regulatory agencies having jurisdiction.

4. Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

PART 2 - PRODUCTS

2.01 EROSION CONTROL

A. Seeding, mulching, and sodding is specified in Section 02480.

B. Netting: Fabricated of material acceptable to the Owner.

2.02 SEDIMENTATION CONTROL

A. Bales: Clean, synthetic hay meeting FDOT Spec's.

B. Netting: Fabricated of material acceptable to the Owner and FDOT.

C. Filter Stone: Crushed stone conforming to Florida Department of Transportation specifications.

D. Concrete Block: Hollow, non-load bearing type.

E. Concrete: Exterior grade not less than one inch thick.

PART 3- EXECUTION EROSION

3.01 CONTROL

A. Minimum procedures for grassing are:

1. Scarify slopes to a depth of not less than six inches and remove large clods, rock, stumps, roots larger than 1/2-inch in diameter and debris.
2. Sow seed within twenty-four (24) hours after the ground is scarified with either mechanical seed drills or rotary hand seeders.
3. Apply mulch loosely and to a thickness of between 3/4-inch and 1 1/2-inches.
4. Apply netting over mulched areas on sloped surfaces.
5. Roll and water seeded areas in a manner which will encourage sprouting of seeds and growing of grass. Reseed areas which exhibit unsatisfactory growth. Backfill and seed eroded areas.

3.01 SEDIMENTATION CONTROL

A. Install and maintain silt dams, traps, barriers, and appurtenances as shown on the approved descriptions and Working drawings. Hay bales which deteriorate and filter stone which is dislodged will be replaced.

3.02 PERFORMANCE

A. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the regulatory agency having jurisdiction, or the Owner or his representative, the Contractor will immediately take whatever steps are necessary to correct the deficiency at his own expense.

B. Tracking of soils onto pavement shall be minimized. Any silt sediments accumulating in curb line or on paved surfaces shall be promptly removed and cleaned.

C. Contractor shall meet all requirements of the FDEP-NPDES permit relating to erosion control and construction discharges from the site. Contractor shall sign the SWPPP plan and provide all required maintenance on a routine basis.

****END OF SECTION****

SECTION 01570

TRAFFIC REGULATION

PART 1- GENERAL

1.01 DESCRIPTION

A This section covers procedures for developing and implementing traffic control and regulation measures and maintenance of traffic in and around the construction area to provide for safe and efficient protection and movement of vehicular and pedestrian traffic/through and adjacent to the construction area.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this Specification to the extent required by the reference thereto. Latest revisions will apply, unless otherwise shown or specified.

B. Florida Department of Transportation (FDOT) Standards

FDOT Manual	State of Florida Manual of Traffic Control and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.
FDOT Specification	Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2016 Edition.
FDOT Standards	Florida Department of Transportation Roadway and Traffic Design Standards, 2016 Edition.

1.03 SUBMITTALS

A Before closing or restricting traffic flow through any thoroughfare, the Contractor will give written notice to and, if necessary, obtain a permit or permits from the duly constituted public authority having jurisdiction over the thoroughfare. Contractor will also notify the applicable law enforcement, fire, and emergency services having jurisdiction in the area. Notice will be given no less than 72 hours in advance of the time when it may be necessary in the process of construction to close or restrict traffic to such thoroughfare, or as may be otherwise required by the governing authority.

1.04 SITE CONDITIONS

A. The Contractor will plan construction operations such that existing local traffic access can be maintained and will maintain during the construction such barricades, lights, flagmen, and other protective devices as appropriate, whether specified for the project or required by the local governing authority. Traffic control devices used for maintenance of traffic will comply with the FDOT Manual.

B. The Contractor will conduct his Work in such manner as not to unduly or unnecessarily restrict or impede normal traffic through the streets of the community. In so far as it is practicable, excavated material and spoil banks will not be located in such manner as to obstruct traffic. The traveled way of all streets, roads, and alleys will be kept clear and unobstructed insofar as is possible and will not be used for the storage of construction materials, equipment, supplies, or excavated earth, except when and where necessary if approved by the governing authority. If required by duly constituted public authority, the Contractor will, at his own expense, construct bridges or other temporary crossing structures over trenches so as not to unduly restrict traffic. Such structures will be of adequate strength and proper construction and will be maintained by the Contractor in such manner as not to constitute an undue traffic hazard. Private driveways will not be closed except when and where necessary, and then only upon due advance notice to the Owner and for the shortest practicable period of time consistent with efficient and expeditious construction. The Contractor will be liable for any damages to persons or property resulting from his Work.

C. The Contractor will make provisions at cross streets for the free passage of vehicles and foot passengers, either by bridging or otherwise, and will not obstruct the sidewalks, gutters, or streets, nor prevent in any manner the flow of water in the latter, but will use all proper and necessary means to permit the free passage of surface water along the gutters. The Contractor will immediately cart away all offensive matter, exercising such precaution as may be directed by the Owner. All material excavated will be so disposed of as to inconvenience the public and adjacent tenants as little as possible and to prevent injury to trees, sidewalks, fences, and adjacent property of all kinds. The Contractor may be required to erect suitable barriers to prevent such inconvenience or injury.

D. Unless otherwise required by the governing authority, maintenance of traffic in and around the construction zone will conform to Section 102 of the FDOT Specification, and Index Nos. 600, 602, 603, 612, and 613 of the FOOT Standards.

PART 2 - PRODUCTS - (NOT USED)

PART 3 - EXECUTION - (NOT USED)

*****END OF SECTION*****

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION

A. These general requirements for material and equipment apply, in general, to all equipment. They supplement the detailed equipment specifications. In case of conflict, the detailed equipment specifications will govern.

B. Related Requirements: Section 01152 Applications for Progress Payments

1.02 COORDINATION

A. The Contractor will assume full responsibility for the coordination of the installation of all equipment, materials and products furnished under these Contract Documents. The Contractor will be completely responsible for verification that all structures, piping and equipment components furnished by the Contractor and/or the subcontractors and suppliers are compatible. The Contractor will start up equipment and make all necessary adjustments to place the system in proper operating condition.

1.03 EQUIPMENT GUARANTEE

A. The Contractor will guarantee all equipment against faulty or inadequate design, improper assembly or erection, defective Workmanship, defective materials, breakage or other failures. The warranty period will be as discussed in the General Conditions.

1.04 WORKMANSHIP AND MATERIALS

A. All equipment will be designed, fabricated, and assembled in accordance with the best modern engineering and shop practice. Individual parts will be manufactured to standard sizes and gauges so that repair parts, furnished at any time, can be installed in the field. Like parts of duplicate units will be interchangeable.

B. Equipment and materials will be new and will not have been in service anytime prior to delivery, except as required by tests. All bolts, nuts, fastenings, pipes and fittings will be manufactured in conformance with the United States system of measurement.

1.05 TRANSPORTATION, HANDLING AND STORAGE

A. The Contractor will be responsible for the maintenance and protection of all equipment, materials, and products placed in storage and will bear all costs of storage, preparation for transportation, transportation, rehandling, and preparation for installation.

1.06 EXTENDED STORAGE

A. In the event that certain items of equipment have to be stored for an extended period of time, the Contractor will provide satisfactory long-term storage facilities that are acceptable to the Owner. The Contractor will provide all special packaging, protective coverings, protective coatings, power, desiccants, lubricants, and exercising necessary or recommended by the manufacturer to properly maintain and protect the equipment during the period of extended storage.

1.07 PROTECTION

A. All equipment will be boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment will be protected from exposure to the elements and will be kept thoroughly dry at all times. Valves and other equipment having antifriction or sleeve bearings will be stored in weather tight warehouses that are maintained at a temperature of at least 60 degrees Fahrenheit. Other equipment may be stored outside under cover. All equipment will be stored above ground level and adequately supported on wood blocking or other approved support material.

B. Painted, anodized, or otherwise coated surfaces will be protected against impact, abrasion, discoloration, and other damage. All coated surfaces, which are damaged prior to acceptance of equipment, will be cleaned and coated or painted to the satisfaction of the Owner with the same or equivalent coating used in the original application.

C. Individually packaged, unpainted steel parts will be protected by a wrapping of vapor phase inhibiting or oil-impregnated paper and polyethylene film.

D. Parts and equipment not requiring periodic inspection or maintenance will be stored unopened in their original packaging until used.

E. Immediately prior to installation, equipment will be cleaned of any protective coatings used during storage and all rust, dirt, grit, or other foreign materials will be removed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

*****END OF SECTION*****
SECTION 01630

SUBSTITUTIONS AND PRODUCT OPTIONS

PART - GENERAL

1.01 EQUIPMENT QUOTES

A. Equipment quotes will be submitted in accordance with the procedures set forth in the Instruction to Bidders.

1.02 SUBMISSIONS FOR PRODUCT SUBSTITUTIONS

A. General: Product substitutions may be proposed by the Contractor, as indicated by the "or approval equal" phrase appearing throughout these Specifications, provided the substitute product is equal to or better than the name products.

B. The Contractor will furnish sufficient detailed information so that an evaluation can be made of any proposed "equal" product. This information will be submitted with the shop drawings. Submission of inadequate or incomplete information as required to properly evaluate a proposed "equal" product will be sufficient grounds for rejection.

1. Performance capabilities.
2. Materials and construction details.
3. Manufacturer's production and service capabilities.
4. Evidence of proven reliability.
5. Specific references to characteristics either superior or inferior to specified requirements.
6. Detailed estimate of operating and maintenance costs (when appropriate).

1.03 EVALUATION OF PRODUCT SUBSTITUTIONS

A. The information required to be furnished for evaluation of product substitutions will be evaluated as follows:

1. Performance capabilities and materials and construction details will be evaluated based upon conformance with the Specifications. Products that do not conform with the Specifications will not be acceptable.
2. Manufacturer's production and service capabilities and evidence of proven reliability will be acceptable if the following is furnished:

    - Written evidence that the manufacturer has not less than three years experience in the design and manufacture of the substitute product.

    - Written evidence of at least one (l) application, of a type and size similar to the proposed substitute product, in successful operation for a period of at least one year.

B. Specific reference to characteristics either superior or inferior to specified requirements will be evaluated based on their net effect on the project. Products with any characteristics inferior to those specified will not be acceptable unless offset by characteristics that, in the opinion of the Owner, will cause the overall effect of the product on the project to be at least equal to that of those specified.

C. The detailed estimate of operating and maintenance costs will be evaluated based on comparison with similar data on the specified products. Proposed substitute products, which have an operating and maintenance cost that, in the opinion of the Owner, exceeds that of the specified products, will not be considered equal and will not be acceptable.

1.04 REIMBURSEMENT

A. The Contractor will be responsible for all costs associated with product substitutions that require major design changes to related or adjacent Work made necessary by the substitutions. Owner shall be due reimbursement of any and all cost savings realized by the substitution.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

*****END OF SECTION*****

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Comply with requirements stated in Conditions of the Contract and in the Specifications for administrative procedures in closing out the Work.

1.02 RELATED REQUIREMENTS

A. Conditions of the Contract. Fiscal provisions, legal submittals and additional administrative requirements.

B. Section 01720: Project Record Documents.

C. The respective sections of Specifications: Submittals Required.

1.03 SUBSTANTIAL COMPLETION

A. When the Contractor considers the Work is substantially complete (i.e. fully constructed and ready for final inspection in accordance with City specifications), he will submit to the Owner:

1. A written notice that the Work is substantially complete, requesting scheduling of the final inspection.
2. A list of items to be completed or corrected (if any).

B. Within a reasonable time after receipt of such notice, the Owner will make an inspection to determine the status of completion.

C. Should the Owner determine the Work is not substantially complete:

1. The Owner will promptly notify the Contractor in writing, giving reasons therefor.
2. The Contractor will remedy the deficiencies in the Work and send a second written notice of substantial completion to the Owner.
3. The Owner will reinspect the Work.

D. When the Owner finds that Work is substantially complete, he will:

1. Prepare a tentative Certificate of Substantial Completion with a tentative list of items to be complete or corrected before final payment.

2. After consideration of any objections made by the Owner as provided in Conditions of the Contract, and when the Owner considers the Work substantially complete, he will execute and deliver the Contractor a Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.04 FINAL INSPECTION

A. When the Contractor considers the Work is complete, he will submit written certification that:

1. Contract Documents have been reviewed.
2. Work has been inspected for compliance with Contract Documents.
3. Work has been completed in accordance with Contract Documents.
4. The Work has been tested as required by the Specifications and in the presence of the Owner's representative and is operational.
5. Work is completed and ready for final inspection.

B. The Contractor shall provide the Owner with a set of Contractor as-builts for final inspection.

C. The Owner will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

D. Should the Owner consider that the Work is incomplete or defective:

1. The Owner will promptly notify the Contractor in writing, 1isting the incomplete or defective Work.
2. The Contractor will take immediate steps to remedy the stated deficiencies.
3. and send a second written certification to the Owner that the Work is completed.
4. The Owner will reinspect the Work.

E. When the Owner finds that the Work is acceptable under the Contract Documents, he will request the Contractor to make closeout submittals.

1.05 REINSPECTION FEES

A. Should the Owner perform more than one reinspection due to failure of the Work to comply with the claims of status of completion made by the Contractor:

1. The Owner will be compensated for such additional service.
2. The Owner will deduct the amount of such compensation from the final payment due to the Contractor.

1.06 CONTRACTOR'S CLOSEOUT SUBMITTALS TO OWNER

A. Evidence of compliance with requirements of governing authorities.

B. As-built drawings.

C. Evidence of Payment and Release of Liens in accordance with requirements of General and Supplementary Conditions.

1.07 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit final statement of accounting to the Owner.

B. Statement will reflect all adjustments to the Contract Sum:
   1. The original Contract Sum
   2. Additions and deductions resulting from:
      a. Previous Change Orders
      b. Allowances
      c. Unit Prices
      d. Deductions for uncorrected Work
      e. Deductions for liquidated damages
      f. Deductions for reinspection payments
      g. Other adjustments
   3. Total Contract Sum, as adjusted
   2. Previous payments
   3. Sum remaining and due to Contractor

C. Owner will prepare a final Change Order reflecting approved adjustments to the Contract Sum that were not previously made by Change Orders.

1.08 FINAL APPLICATION FOR PAYMENT

A. Contractor will submit the final Application for Payment in accordance with procedures and requirements stated in Section 01152 and in the Conditions of the Contract.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor will maintain at the site for the Owner one record copy of:

1. Drawings
2. Specifications
3. Addenda
4. Change Orders and other modifications to the Contract
5. Engineer field orders or written instructions
6. Approved shop drawings, product data and samples
7. Field test records
8. As-Built Drawings

B. Related Requirements:

1. Section 01200: Project Meetings
2 Section 01340: Shop Drawings, Product Data and Samples
3 Section 01500: Construction Facilities and Temporary Controls
4 Section 01700: Contract Closeout

1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. The Contractor will store record documents, As-Builts, and samples apart from documents used for construction.

1. Provide files and racks for storage of documents.
2. Provide locked cabinet or secure storage space for storage of samples.

B. Documents will be maintained in a clean, dry, legible condition and in good order. Do not use As-Built Documents for construction purposes.

C. Documents and samples will be available at all times for inspection by the Owner.

1.03 MARKING DEVICES

A. The Contractor will provide suitable permanent marking pens for recording information in the color code designated by the Owner.

1.04 RECORDING

A. Each document will be labeled "AS BUILT" in large printed letters, and will include the Contractor's name and the name of the person responsible for the As-Built Drawings.

B. As-Built information will be kept current with construction progress.

C. As-Built Drawings:

1. The Contractor will keep an accurate record of the location, size, and material for all piping, casings and changes in equipment dimensions and any other variations between the Work actually provided and that shown on the Contract Drawings. The representation of such variations will conform to standard drafting practice and will include such supplementary legibility and clear portrayal of the construction.
2. Final alignment, invert elevations and locations are to be supplied by the Contractor. Final location of buried valves will be identified by reference to at least three permanent above-grade structures.
3. Do not conceal any Work until required information is recorded.
4. Location of all manholes, hydrants, valves and valve boxes shall be shown. All valves shall be referenced from three (3) permanent points.

D. GPS points on fittings, valves, and joints are to be collected using Trimble XH or XT units

1.05 SUBMITTAL

A. Sketches showing the As-Built information will be made available to the Owner for review monthly with the Application for Progress Payment. As-Built Drawings will be reviewed with the Owner monthly as part of the Application for Progress Payment review process.

B. As-Builts are to be submitted through download via Microsoft OneDrive or equivalent in a compatible Geographical Information Systems (GIS) format, along with a minimum of three (3) printed and certified copies.

C. Upon completion, the Contractor will have As-Built Drawings and Records certified as to their completeness and correctness by a Florida State Registered/Professional Land Surveyor in accordance with chapters of the Florida Statutes and Florida Administrative Code applicable to land surveying for incorporation in the Record Drawings. The final as-built record drawings will include two (2) ties to above ground structures for each watermain appurtenance, and Station/Range info at 100 foot intervals (maximum).

D. At Contract close-out, deliver electronic version and three (3) complete sets of printed As-Built Drawings and records to the Owner. The submittal must include a signed/dated black line copy.

E. Accompany submittal with transmittal letter in duplicate, containing:

1. Date
2. Project title and number
3. Contractor's name and address
4. Title and number of each As-Built Document
5. Certification that each document as submitted is complete and accurate
6. Signature of the Contractor or his authorized representative

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

**** END OF SECTION ****

DIVISION 2 – SITEWORK

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SECTION 02220

EXCAVATING, BACKFILLING, AND COMPACTING FOR UTILITIES

PART 1- GENERAL

1.01 SUMMARY

A. This Section covers the stripping of topsoil and vegetation, excavating, trenching, bedding, filling, backfilling, compacting, and related work in connection with installing water mains, casings, service connections, hydrants, valves, fittings, and other applicable appurtenances.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this specification to the extent required by the reference thereto. Latest revisions will apply, unless otherwise shown or specified.

B. American Association of State Highway and Transportation Officials (AASHTO) Standards

AASHTO Tl80 Moisture-Density Relations of Soils Using a 10-lb. [4.54kg] Rammer and an 18-inch [457mm] Drop (Re: ASTM D-1557).

C. American National Standards Institute (ANSI) and American Water Works Association (AWW A) Standards

ANSI/AWWA C600 AWWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances

ANSI/AWWA C605 AWWA Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water

D. American Society for Testing and Materials (ASTM) Standards

ASTMD2487 Classification of Soils for Engineering Purposes

ASTMD1557 Moisture-Density Relations of Soils Using a 10-lb. [4.54 kg] Rammer and an 18-inch [457 mm] Drop

E. Florida Department of Transportation (FDOT) Standards

FDOT Specification — Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition

1.03 DEFINITIONS

A. Excavation

1. Removal of earth and rock to form cavities for construction of foundations and structures and to form trenches for installation piping.
2. Cavity formed by removal of earth and rock.

B. Earth

Unconsolidated material in the crust of the Earth derived by weathering and erosion. Earth includes:

1. Materials of both inorganic and organic origin;
2. Boulders less than 1/3 cubic yard in volume, gravel, sand, silt, and clay;
3. Materials which can be excavated with a backhoe, trenching machine, dragline, clam shell, bulldozer, highlift, or similar excavating equipment without the use of explosives, rock ripper, rock hammers, or jack hammers.

C. Rock

A natural aggregate of mineral particles connected by strong and permanent cohesive forces. Rock includes:

1. Limestone, sandstone, dolomite, granite, marble, and lava;
2. Boulders 1/3 cubic yard or more in volume;
3. Materials which cannot be excavated with equipment which is used to remove earth overburden without the use of explosives, rock rippers, rock hammers, or jack hammers;
4. Materials which cannot be excavated with a backhoe, trenching machine, dragline, clam shell, bulldozer, highlift, or similar excavating equipment without the use of explosives, rock rippers, rock hammers, or jack hammers.

D. Undercutting

Excavation of rock and unsuitable earth below the bottom of the foundation, structure, pipe, or conduit to be constructed or installed.

E. Subgrade

Undisturbed bottom of excavation.

F. Bedding

Suitable natural or fill soils compacted at the bottom of the trench to support pipe and conduit.

G. Backfill and Fill

1. Earth placed around structures or pipe from bottom of excavation to finished grade, or to subbase of pavement.
2. Earth placed in trench from the top of initial backfill to finished grade, or to subbase of pavement.

H. Topsoil

Earth containing sufficient organic materials to support the growth of grass.

I. Haunching

Earth placed in trench from top of bedding to spring line of pipe or conduit to support pipe or conduit.

J. Initial Backfill (or Cover Material)

Earth placed in trench from top of haunching to 12 inches above top of pipe conduit.

1.04 SUBMITTALS

A. Submittals will be as specified in the General Conditions and in Division 1- General Requirements.

B. Samples: Before using granular materials for trench backfill or bedding, submit samples from each typical source to a soils testing laboratory

approved by the Owner.

C. Reports: Submit soils testing laboratory reports to Owner for checking as follows:

1. Two copies of the gradation analysis of material from each source used for trench backfill, bedding and subbase.
2. Two copies of the gradation analysis and compaction requirements for each typical class of backfill.
3. Reports from soils testing laboratory should state any special manipulation or compaction requirements required to achieve specified density or supportive value for each class of backfill.

1.05 JOB CONDITIONS

A. Maintenance of Traffic

Notify Traffic Engineer of local jurisdictions, Police and Fire Departments two (2) working days prior to excavation in streets.

B. General Requirements

1. Contractor will by the end of each work day, backfill all trenches, holes, or other excavations to provide a compacted surface capable of supporting vehicular loads, level with the existing ground surface at no additional cost to the Owner.
2. Where the above requirement cannot be met, the Contractor will provide such measures as required to secure the excavation and prevent access to it by the public. Such measures will include but not be limited to covers, fencing, barricades and security lighting.
3. No more than two blocks at a time shall be under construction without right-of-way restoration including sodding, driveway repair and pavement repair.

1.06 GUARANTEE

A. OWNER requires guarantee against trench settlement to be furnished by CONTRACTOR:

1. By acceptance of payment for the Work of this Section, CONTRACTOR guarantees for one year after Final Completion as follows:
   a. For trenches in unpaved areas surface settlement will not exceed one inch.
   b. For trenches in paved areas, surface settlement will not occur.

c. For all trenches, pipe zone bedding will not settle or be displaced causing damage or misalignment of utility.
d. In case trench settlement occurs in excess of the above limits, CONTRACTOR will repair all surfaces and utilities at no additional cost to Owner.

1.07 QUALITY ASSURANCE

A. The Contractor will employ and pay for the services of an independent testing laboratory to perform specified services and necessary field density tests to ensure that appropriate materials are supplied and proper compaction is obtained. Density tests will be conducted at intervals that will provide the equivalent of at least one test for every 150 linear feet of trench backfill. Provide all necessary labor and equipment to complete the required tests and make any repairs necessary following the tests. In the event the results of any test are unsatisfactory, the Owner will conduct additional tests to determine the extent of the unsatisfactory area(s) and retests to confirm satisfactory correction by the Contractor. Costs of such additional tests and retests will be paid by the Contractor.

B. Regulatory Requirements

1. The Contractor shall be solely responsible for all obligations prescribed as employer obligations wider Chapter XVII of Title 29, Code of Federal Regulations, Part 1926, otherwise known as "Safety and Health Regulations for Construction." The Contractor will comply with OSHA's Excavation Safety Standards 29, CFR Part 1926.650-652, Subpart P, as well as Florida's Trench Safety Act (90-96). It is the Contractor's responsibility to notify and coordinate with the Owner's independent testing laboratory for scheduling of all tests.
2. sufficient warning lights on or near the work and keep them illuminated during periods of reduced visibility (from twilight in the evening until sunrise) and be responsible for any damages that any party or the Owner may sustain in consequences of neglecting the necessary precaution in prosecuting this work.

1.08 SITE CONDITIONS

A. Existing storm sewers, sanitary sewers, water mains, gas mains, electric ducts, telephone ducts, and other underground structures, lines, and their house connections have been shown on the Drawings according to the best available information. The exact location and protection of these facilities and structures and their support and maintenance in operation during construction (in cooperation with the proper authorities), is the responsibility of the Contractor.

1.09 SPECIAL INSTRUCTIONS

A. OSHA'S Excavation Safety Standards 29, CFR Part 1926.650-652 Subpart P, as well as Florida's Trench Safety Act (90-96) will be considered as complimentary to these specifications. Should there be any duplication, redundancy, or conflict between the stipulations of these specifications and the above governmental standards, the most stringent requirement will govern. Any question as to such stringency for any specific duplication, redundancy or conflict which cannot be determined by the Contractor, will be submitted in writing to the Owner for his determination as to which stipulation will govern.

B. All trenches will be backfilled within 5 days maximum and prior to any weekends or holidays.

PART 2- PRODUCTS

2.01 BEDDING, HAUNCHING, INITIAL BACKFILL AND BACKFILL

A. Suitable Materials

The following soils classified in accordance with ASTM 02487 are acceptable:

Class II

GW - Well-graded gravels and gravel-sand mixtures, little or no fines. 50% or more retained on the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

GP - Poorly graded gravels and gravel-sand mixtures, little or no fines. 50% or more retained on the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

SW - Well-graded sands and gravelly sands, little or no fines. More than 50% passes the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

SP - Poorly graded sands and gravelly sands, little or no fines. More than 50% passes the U.S. No. 4 sieve. More than 95% retained on the U.S. No. 200 sieve. Clean.

Class IIA

SP/SM - Mixture of sand and silt with between 5% and 12 % passing the U.S. No. 200 sieve.

SP/SC - Mixture of sand and clay with between 5% and 12 % passing the U.S. No. 200 sieve.

GP/GM- Mixture of gravel and silt with between 5% and 12 % passing the U.S. No. 200 sieve.

GP/GC - Mixture of gravel and clay with between 5% and 12 % passing the U.S. No. 200 sieve.

Class III

GM - Silty gravels, gravel-sand-silt mixtures. 50% or more retained on the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

GC - Clayey gravels, gravel-sand-clay mixtures. 50% or more retained on the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

SM - Silty sands, sand-silt mixtures. More than 50% passes the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

SC - Clayey sands, sand-clay mixtures. More than 50% passes the U.S. No. 4 sieve. More than 12% passes, but less than 50% passes, the U.S. No. 200 sieve.

C. Unsuitable Materials

Stones greater than 8 inches in their largest dimension, pavement, rubbish, debris, wood, metal, plastic, and the following soils classified in accordance with ASTM D2487 are unsuitable:

Class IV

ML - Inorganic silts, very fine sands, rock flour, silty or clayey fine sands. Liquid limit 50% or less. 50% or more passes the U.S. No. 200 sieve.

CL - Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, Jean clays. Liquid limit 50% or less. 50% or more passes the U.S. No. 200 sieve.

MH - Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts. Liquid limit greater than 50%. 50% or more passes the U.S. No. 200 sieve.

CH - Inorganic clays of high plasticity, fat clays. Liquid limit greater than 50%. 50% or more passes the U.S. No. 200 sieve.

Class V

OL - Organic silts and organic silty clays of low plasticity. Liquid limit 50% or less. 50% or more passes the U.S. No. 200 sieve.

OH - Organic clays of medium to high plasticity. Liquid limit greater than 50%. 50% or more passes the U.S. No. 200 sieve.

PT - Peat, muck and other highly organic soils.

D. Concrete Backfill

Class B concrete as specified in Section 03300, Cast-in-Place Concrete.

E. Cellular Concrete

Light weight cellular concrete may be used as a grouting mixture for filling voids, and as a substitute for backfill concrete in casing pipes. Blend preformed foam with cement-sand grout slurry to produce a concrete having a fresh weight per cubic foot of not less than 75 pounds.

PART 3 - EXECUTION

3.01 INSPECTION

A. Prior to all work, carefully inspect the site and verify that construction may properly commence:

1. Before excavation:
   a. Verify layout, horizontal and vertical, and conformance of layout with Contract Drawings.
   b. Verify Limits of Construction.
   c. Check surface drainage ditch and driveway culverts. Record alignments, both vertical and horizontal. Also, inspect culvert pipes and immediately report to the Owner any condition that would prevent removal and

reinstallation.

d. Verify utility locations, including, but not limited to, aerial, polelines, buried, underground, transmission, local service, and individual connection.

e. Record location, size and description of property to be removed and replaced including, but not limited to, curbs, driveways, pavements, plantings and lawn furnishings.

f. Accurately survey and record the location of property pins, bench marks, USGS Monuments, right-of-way markers, within the Limits of Construction that may be moved by the Contractor's operations. Use licensed land surveyor only.

2. After execution, verify that utilities to be laced in trenches may be installed in accordance with pertinent drawings and specifications.

3. Before backfilling, verify that:

a. Utilities have been installed in accordance with pertinent drawings and specifications.

b. Other utilities are adequately continued, supported and maintained without damage.

B. In the event of discrepancy or unsatisfactory conditions, immediately notify the Owner.

3.02 PREPARATION

A. Notification – Before commencing excavation in any part of the job, notify the following:

1. The Owner
2. Adjacent and affected property occupants.
3. The Fire Department
4. The Police Department – TRAFFIC DIVISION
5. All public and private utilities whose facilities are in the vicinity of the excavation, including gas and oil pipeline companies, in accordance with FL-77-153.

3.03 EXISTING UTILITIES, STRUCTURES AND PROPERTY

A. Except where noted to be placed out of service, relocated, or removed and replaced, support and protect from damage all poles, fences, sewer, gas, water, or other pipes, wires, conduits, and manholes, railroad tracks, buildings, structures, and property.

B. Movable items such as mailboxes may be temporarily relocated during construction. Place movable items in their original location immediately after backfilling is completed, unless otherwise shown on the Drawings. Replace movable items which are damaged during construction.

C. Proceed with caution in the excavation and preparation of trenches so that the exact location of underground utilities and structures, both known and unknown, may be determined. Be responsible for the repair of utilities and structures when broken or otherwise damaged.

D. Whenever, in the opinion of the Owner, it is necessary to explore and excavate to determine the location of underground structures, make explorations and excavations for such purpose.

E. Wherever sewer, gas, water, or other pipes or conduits cross the trench, support pipes and conduits without damage and without interrupting work of this Contract. The manner of supporting such pipes, etc., will be subject to the approval of the utility involved.

F. When utility lines that have to be removed or relocated are encountered within the areas of operations, notify the Owner in ample time for the necessary measures to be taken to prevent interruption of the service.

G. Conduct work so that no equipment, material, or debris will be placed or allowed to fall upon private property in the vicinity of the work unless property owner's written consent thereto is obtained and a copy submitted to the Owner.

H. Pile all excavated material to avoid obstructing walkways and driveways. Leave hydrants under pressure. Leave valve pit covers, valve boxes, curb stop boxes, fire and police call boxes, or other utility controls unobstructed and accessible until the work is completed. Keep drainage ways clear or make other satisfactory provisions for street drainage. Do not obstruct natural watercourses.

I. Clean all streets, alleys, pavements, parkways, and private property of all surplus materials, earth, and rubbish placed thereon by the Contractor.

J. Remove existing thrust blocks that are uncovered during construction and, if necessary, post restrain the existing pipe for the entire length as shown in the construction plan details.

3.04 CLEARING AND GRUBBING

A. Remove and dispose of trees, snags, stumps, shrubs, brush limbs, trash pipes, rubbish and other material that will impede construction operations. Clear and remove said obstructions along the water main's route as needed to provide adequate space for the Contractor's installation work, including space for control stakes and hubs. Minimize tree removal.

B. Removal of Trees and Other Plants

1. All trees with trunks 3 inches or larger in diameter will be preserved and protected from damage, unless removal is authorized in writing by the City of Cocoa.
2. All trees, shrubs, plants, and other vegetation beyond the right-of-way or Easement limits will be protected from damage. The Contractor will be liable for the repair or replacement of any damaged trees or other vegetation.
3. No filling, excavation, trenching, stockpiling of materials, or storing of equipment will be permitted within 5 feet of small shrubs or plants that are to be preserved or within that portion of the dripline of trees or large shrubs that is 20 feet or more away from the pipe centerline. The dripline is defined as a circle drawn by extending a line vertically to the ground from the outermost branches of a tree, shrub or group thereof.
4. If branches of trees (which are to be preserved) extend into the working area, they may be cut and trimmed in a manner that will result in a balanced appearance of the tree. Scars resulting from the removal of branches will be treated with a tree sealant.
5. In the case where trees are outside the easement and right-of-way, but the dripline and probable root zone is within the construction area, excavation methods will be utilized that will minimize any damage to the trees. Included in such methods is the *use* of a shield or shoring to minimize lateral excavation.
6. The Contractor will obtain specific direction from the City of Cocoa prior to removal of any trees or plants within easements crossing private property.
7. When trees and other plants are removed, or where obstructions protrude through the surface of the existing ground, all such material will be removed to a minimum depth of one (1) foot below existing grade.

C. Removal and Reuse of Sod

D. To the extent possible, sod will be cleanly cut, removed, maintained and reused as described in Section 02482, Landscaping for Utilities.

E. Top Soil Stripping

Within the limits of excavation for the utility trenches, strip the upper 6 to 12 inches of soil and mulch this soil with the small vegetation and other organic material removed therewith. This mulched soil will be maintained separate from the general from the general trench excavation material and reused for restoration purposes.

3.05 PAVEMENT AND WALK REMOVAL

A. Remove existing pavement and walks from areas to be excavated. Remove excavated asphaltic and concrete materials from the job site as these materials are excavated.

B. Unless limits are specified on the Drawings, limit the width of pavement removed along the normal trench for the installation of pipe and structures to the width of the trench plus not more than 12 inches on each side of the trench when the amount of pavement removed is less than 75 percent of the total existing pavement width. Remove all existing pavement when the excavation requires the removal of 75 percent or more of the total existing pavement width.

C. Remove walks completely when excavation is along the length of a walk and requires removal of part of the walk. Remove walks to existing joints in the walks when excavation crosses walkways. If there are no joints in an existing walk, limit the width of walk removed to the width of the trench plus not more than 12 inches on each side of the trench. Sidewalk cuts shall be made perpendicular to the sidewalk.

D. Remove pavement and walks by methods that will assure breaking or cutting of pavement and walks along straight lines. Leave faces of remaining pavement and walk surfaces approximately vertical.

3.06 DEWATERING

A. Keep excavations free from water until the water mains, force mains, sewers, structures, and appurtenances to be adjusted, lowered or constructed in the excavations are completed and will safely withstand forces from water. Provide sufficient dewatering equipment and make satisfactory arrangements for the disposal of the water without undue interference with other work, damage to property, or damage to the environment, or violation of any local, state or federal regulations. Any penalties resulting from a violation, including, but limited to, clean-up, consent orders, etc., will be at the Contractor's expense.

B. Operate dewatering equipment ahead of pipe adjustments or installations and keep the water level a minimum of 2-feet below the pipe invert until the pipe is secured by backfill and ends are plugged with water tight plugs. Cost for all dewatering activities shall be made at the Contractor's expense.

C. Any required Dewatering Permits to be obtained by Contractor.

3.07 EXCAVATING

A. Reference the requirements stipulated by OSHA's Excavation Safety

Standards 29, CFR Part 1926.650-652, Subpart P, and Florida's Trench Safety Act (90-96).

B. After stripping of topsoil and vegetation, perform excavations of every description regardless of material encountered within the grading limits of the project to lines and grades as indicated on the Drawings or as otherwise specified.

C. Replace materials removed below the depths indicated without specific direction of the Owner to the indicated excavation grade with satisfactory bedding materials placed and compacted at no additional cost to the Owner.

D. Before excavating is begun, remove or make safe trees, boulders, and other surface encumbrances, located so as not to create a hazard to employees involved in excavation work or in the vicinity thereof at any time during operations.

E. Do not open more than 100 feet of trench in advance of the installed pipe, unless otherwise directed or permitted by the Owner. Excavate the trench within 6 inches of full depth for a distance of at least 30 feet in advance of the pipe laying, unless otherwise directed or permitted.

F. Determine the angle of repose of the soil in which the trenching is to be done. Excavate all slopes to at least the angle of repose except for areas where shoring or trench box is to be used.

G. Support sides, slopes, and faces of all excavations by scaling, benching, barricading, or other equally effective means. Give special attention to slopes which may be adversely affected by weather or moisture content.

H. Flatten the trench sides when an excavation has water conditions, silty materials, loose boulders, or areas where erosion, or slide planes appear.

I. Use shoring, sheeting, trench box, or other means to support sides of trenches in hard or compact soil when the trench is more than 5 feet in depth and 8 feet or more in length. Sides of trenches will include embankments adjacent to trenches. In lieu of shoring, the sides of the trench above the 5 foot level may be sloped to preclude collapse, when sloping will not compromise the integrity of adjacent pavement or structures.

J. Use diversion ditches, dikes, or other suitable means to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Do not allow water to accumulate in an excavation. If possible, the grade should be away from the excavation.

K. Have excavations inspected by a competent Contractors representative after every rainstorm or other hazard increasing occurrence, and increase the protection against slides and cave-ins if necessary.

L. Do not store excavated or other material within 4 feet of edge of any excavation. Store and retain materials to prevent them from falling or sliding back into excavations. Install substantial stop logs or barricades when mobile equipment is utilized or allowed adjacent to excavations.

M. Excavate trenches to provide 12" minimum clearances on each side of the pipe to allow adequate working room for pipe installation and for compaction under pipe haunches.

N. Limit clear width of excavations for manholes and other structures to the greatest external width of the structure plus the space necessary for the construction and removal of the forms and construction of concrete or masonry work.

O. Test the air in excavations in locations where oxygen deficiency or gaseous conditions are possible. Establish controls to assure acceptable atmospheric conditions. Provide adequate ventilation and eliminate source of ignition when flammable gases are present. Provide readily available attended emergency rescue equipment, such as breathing apparatus, a safety harness and line, and basket stretcher, where adverse atmospheric conditions may exist or develop in an excavation.

P. Provide walkways or bridges with guardrails where employees or equipment are required or permitted to cross over excavations.

Q. Provide ladders where employees are required to be in trenches 4 feet or more in depth. Extend ladders from the floor of the trench to at least 3 feet above the top of the excavation. Locate ladders to provide a means of exit without more than 25 feet of lateral travel.

R. Provide adequate barriers and physically protect all remotely located excavations. Barricade or cover all wells, pits, shafts, and similar excavations. Backfill temporary wells, pits, shafts, and similar excavations upon completion of exploration and similar operations.

S. Carry on the work with utmost vigor and proceed with the work expeditiously when running sand, quicksand, or other bad or treacherous ground is encountered. Install bedding or other means to support the pipe as directed by the Owner.

3.08 SHEETING/SHEET PILING

A. Reference the requirements stipulated by OSHA's Excavation Safety Standards 29, CFR Part 1926.650-652, Subpart P, and Florida's Trench Safety Act (90-96).

B. Have supporting systems, such as piling, cribbing, shoring, and bracing, designed by qualified Contractor's representative to meet accepted engineering standards. When tie rods are used to restrain top of sheeting or other retaining systems, securely anchor tie rods well back of angle of repose. When tight sheeting or sheet piling is used, assume full loading due to groundwater table in its design, unless prevented by weep holes, drains or other means. Provide additional stringers, ties, and bracing to allow for any necessary temporary removal of individual supports.

C. Use materials for sheeting, sheet piling, cribbing, bracing, shoring, and underpinning which are in good, serviceable condition. Use timbers which are sound, free from large or loose knots, and of proper dimensions.

D. Take special precautions in sloping or shoring sides of excavations adjacent to a previously backfilled excavation or a fill, particularly when separation is less than depth of excavation. Pay particular attention to joints and seams of material comprising a face and to slope of such seams and joints.

E. If it is necessary to place or operate power shovels, derricks, trucks, materials, or other heavy objects on a level above or near excavation, sheet-pile, shore, and brace side of excavation as necessary to resist extra pressure due to such superimposed loads.

F. If stability of adjoining buildings, walls, or utility lines is endangered by excavations, provide shoring, bracing, or underpinning as necessary to ensure safety of adjoining buildings, walls, or utility lines. Have shoring, bracing or underpinning inspected daily or more often, as conditions warrant, by competent Contractor's representative and effectively maintain protection.

G. Be responsible for sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from improper quality, strength, placing, maintaining, or removing of same, including damage to trees, sidewalks, and other property on site, as well as on private grounds.

H. Drive sheeting ahead of excavation. Do not remove sheeting until backfill of excavation has reached within 2 feet of top of excavation, except that lower course of sheeting may be removed from a double sheeted excavation. Cut off and leave in place all sheeting driven below the top of pipe. When sheeting is drawn, completely fill all cavities remaining in or adjoining excavation. When sheeting is left in place, completely fill all cavities behind such sheeting. Cut off all sheeting left in place a minimum of 2 feet below finish grade.

3.09 STORAGE, REMOVAL AND DISPOSAL OF EXCAVATED MATERIAL

A. Suitable excavated material required for filling and backfilling operations may be stockpiled in on-site locations as approved by the Owner, until the material is ready to be placed.

B. Remove unsuitable materials from the job site as unsuitable materials are excavated. Remove surplus suitable materials from the job site as trenches are backfilled.

C. Dispose of unsuitable and surplus materials off site.

3.10 TEMPORARY PLUGS

A. Prevent foreign matter from entering pipe while it is being installed. Do not place debris, tools, clothing, or other material in the pipe. Close the open ends of pipe by watertight plugs when pipe laying is not in progress. Remove any earth or other material that enters pipe or appurtenances through any open pipe end. Remove earth and other materials at no additional cost to the Owner.

3.11 PIPE BEDDING, HAUNCHING AND BACKFILLING

A. Do not backfill trenches and excavations until all utilities have been inspected by the Owner's Representative and until all underground utilities and piping systems are installed in accordance with the requirements of the Specifications and the Drawings. Do not apply required hydrostatic tests of pressure lines to lines utilizing restrained joints rather than thrust blocking until after the trench is backfilled.

B. Material requirements for pipe bedding, haunching, initial backfilling and backfilling are given under Part 2 - Products of this Specifications Section.

C. Lay each pipe section in a firm foundation of bedding material and haunch and backfill with care. Use material from the excavation for bedding, haunching, initial backfilling, and backfilling when it meets the following requirements; when excavated material does not meet these specifications, it will be replaced with material from off-site borrow which does:

1. Use Class II or Class IIA materials for bedding, haunching and initial backfill up to minimum 12" above crown of pipe.
2. Use Class II, Class IIA, or Class III materials for backfill above the initial backfill.
3. Additional requirements are as shown on the Drawing.

Excavate bell holes at each joint to permit proper assembly and inspection of each joint.

D. Compact pipe bedding, haunching, initial backfilling, and backfilling material to a minimum of 95 percent of maximum density as determined by AASHTO T-180 in unpaved areas and minimum of 98 percent of maximum density as determined by AASHTO T-180 in paved areas and within two feet of paved areas.

E. Prior to pipe installation, carefully bring compacted bedding material to grade along the entire length of pipe to be installed. Place compacted bedding material to a minimum thickness of 6 inches beneath the pipe. Excavate bell holes in advance of pipe laying so the entire barrel will bear uniformly. Use hand or mechanical tamping to compact bedding material to the required minimum 95 percent of maximum density (ASTM D1557). Contractor to use the services of an independent laboratory to perform all density testing. Contractor to pay for all density testing.

F. Place and compact haunching material of the same type as the bedding material to the spring line of the pipe exercising care to not displace the pipe from the required line and grade. Place and compact haunching material in lifts not exceeding 6" loose depth. Place and compact initial backfill from top of haunching to 12" over the top of the pipe in lifts not exceeding 6" loose depth. Place and compact backfill above initial backfill in lifts not exceeding 12" loose depth. Do not use mechanical or impact tampers directly over the pipe until at least 12" depth of backfill over the top of the pipe has been placed.

G. In yielding subsoils, undercut the trench bottom to the depth necessary and backfill with graded, crushed stone to form a firm foundation. No additional payment will be made for stabilizing yielding subsoils.

H. The moisture content of the bedding, haunching, initial backfill and backfill will be within 2% of the optimum moisture content. If water is added to improve compaction, or if water exists in the trench, take care to avoid saturation of Class II, Class IIA or Class III material. This condition could result in loss of stability.

I. Place and tamp bedding, haunching, initial backfill, and backfill in a manner which will not damage pipe, coating, wrapping, or encasement.

J. Do not use the following materials for bedding, haunching, initial backfill, and backfilling:

1. Unsuitable materials, as specified under Article 2.0 I.
2. Materials which are too wet or too dry to be compacted to the

densities specified in this Article (3.11).

3.12 CLEANUP AND MAINTENANCE

A. Cleanup the job site as backfilling is completed. Remove excess earth, rock, bedding materials, and backfill materials. Remove unused piping materials, structure components, and appurtenances. Restore items moved, damaged, or destroyed during construction. Grade area to be restored. Leave backfill mounded over trenches which are not to be restored by paving or sidewalks. Do not permit cleanup and restoration specified in this paragraph to lag behind excavation by more than 100 feet.

B. Maintain the job site until the work has been completed and accepted. Fill trenches which settle when settlement is visible. Restore items damaged by construction or improper restoration. Keep dust conditions to a minimum by the use of approved dust palliatives.

****END OF SECTION****

SECTION 02405

HORIZONTAL DIRECTIONAL DRILLING

PART 1- GENERAL

1.01 SUMMARY

A. Section includes furnishing and installing underground utilities using the Horizontal Directional Drilling (HDD) method. This work shall include all services, equipment, materials, and labor for the complete and proper installation, testing, restoration of underground utilities and environmental protection and restoration.

HORIZONTAL DIRECTIONAL DRILLING

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards and shall utilize high density polyethylene (HDPE, DR 11)

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:
• The directional bore contractor (preferably the Field Superintendent)
• The permitting agency
• EOR
• City Engineering Division Representative
• Inspector for the project

ENGINEER OF RECORD

1. The EOR must include a scaled drawing showing the details of the directional drill on the construction drawings (i.e., profile, depth, location of existing utilities, maximum deflection angle).

2. If during construction it is determined a directional drill is required (and was not previously approved), the EOR is required to update the construction drawings and receive approval.

HDD CONTRACTOR
1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in “Appendix B”) to Utilities Development

allowing for a 5-business day review period. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan")

• The entrance and exit location
• Profile of the bored pipe
• Proposed deflection angle for approach and exit
• Documentation on the allowable maximum and minimum deflection for the particular pipe being used
• All utilities including their depths and clearances from reamer
• Width of the right of way
• Pavement width
• Length of the bore
• The bore plan shall be signed by the responsible person in charge of the bore

2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:

• Water mains 12" and greater minimum clearance is 18"
• Water mains 10" and less minimum clearance is 12"

3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.

4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance
of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.

2. The Inspector for the project will have a copy of the bore plan at the project site.

3. Prior to the HDD the Inspector shall verify that the materials at the project site for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.

4. The Inspector shall verify the following prior to the commencement of the HDD:
a. Verify that the HDD contractor has obtained his/her utility locates;
b. Verify that all utilities have been visually spotted by the HDD

contractor;
c. Verify that the permitting agency has been notified of the HDD; and
d. Witness the calibration of the sonde.

5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified.

COMPLETION OF THE BORE

1. A bore log shall be submitted to Utilities Development after completion of the bore.

B. HDD is a trenchless method for installing a product that serves as a conduit for liquids, gasses, or as a duct for pipe, cable, or wire line products. It is a multistage process consisting of site preparation and restoration, equipment setup, and drilling a pilot bore along a predetermined path and then pulling the product back through the drilled space. When necessary, enlargement of the pilot bore hole may be necessary to accommodate a product larger than the pilot bore hole size. This process is referred to as back reaming and is done at the same time the product is being pulled back through the pilot bore hole.

Accomplish alignment of the bore by proper orientation of the drill bit head as it is being pushed into the ground by a hydraulic jack. Determine orientation and tracking of the drill bit by an above ground radio detection device which picks up a radio signal generated from a transmitter located within the drill bit head. Then electronically translate the radio signal into depth and alignment. In order to minimize friction and prevent collapse of the bore hole, introduce a soil stabilizing agent (drilling fluid) into the annular bore space from the trailing end of the drill bit. The rotation of the bit in the soil wetted by the drilling fluid creates a slurry. The slurry acts to stabilize the surrounding soil and prevent collapse of the bore hole as well as provides lubrication.

Select or design drilling fluids for the site specific soil and ground water conditions. Confine free flowing (escaping) slurry or drilling fluids at the ground surface during pull back or drilling. Accomplish this by creating sump areas or vacuum operations to prevent damage or hazardous conditions in surrounding areas. Remove all residual slurry from the surface and restore the site to pre-construction conditions.

1.02 RELATED SECTIONS

A. Section 02220 - Excavating, Backfill and Compacting

B. Section 02660 – Pressure Pipes and Accessories

1.03 QUALITY ASSURANCE/REFERENCES

A. The requirements set forth in this document specify a wide range of procedural precautions necessary to ensure that the very basic, essential aspects of a proper directional bore installation are adequately controlled. Strict adherence shall be required under specifically covered conditions outlined in this specification. Adherence to the specifications contained herein, or the Engineer's approval of any aspect of any directional bore operation covered by this specification, shall in no way relieve the Contractor of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract.

B. Reference is made to the following standards of the American Society for Testing and Materials (ASTM) latest edition:

1. Polyethylene pipe shall be manufactured in accordance with and conforming with AWWA C 906 latest edition and ASTM F714. Pipe diameters are as shown on the drawings
2. Polyethylene extrusion compound from which the polyethylene pipe is extruded must comply with application requirements for PE-4710 high molecular weight polyethylene plastic material, as described in ASTM D 3350

1.04 SUBMITTALS

A. Prior to beginning work, the Contractor shall submit to the Engineer a general work plan outlining the procedure and schedule to be used to execute HOD project. Plan should document the thoughtful planning required to successfully complete the bore installation.

B. Contractor shall submit specifications on directional drilling equipment to be used to ensure that the equipment will be adequate to complete the project. Submittal shall demonstrate that pullback forces are sufficient to complete the entire project without imposing excessive forces on the HDPE pipe. Include calculations prepared by Florida registered engineer demonstrating acceptable forces for this installation material combination. In general, calculations shall follow the currently accepted model as shown by NASTT.

C. Specifications on material to be used shall be submitted to Engineer.

Material shall include the pipe, fittings and any other item that is to be an installed component of the project.

D. Furnish a Bore Path Report to the Engineer within seven days of the completion of each bore path. Include the following in the report:

1. Location of project and financial project number including the Permit Number when assigned

2. Name of person collecting data, including title, position and company name

3. Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way)

4. Identification of the detection method used

5. Elevations and offset dimensions as required in the nearest hundredth of a foot.

E. Provide the Engineer a complete set of As-Built Plans showing all bores (successful and failed) within 30 calendar days of completing the work. Ensure that the plans are dimensionally correct copies of the Contract plans and include roadway plan and profile, cross-section, boring location and subsurface conditions as directed by the Engineer. The plans must show appropriate elevations and be referenced to a Department Bench Mark when associated with a Department project, otherwise to a USGS grid system and datum, or a specific location on top of an existing Department headwall. Plans must be same scale in black ink on white paper, of the same size and weight as the Contract plans. Submittal of electronic plans data in lieu of hard copy plans is preferred and may be approved by the Engineer if compatible with the Department software. Specific plans content requirements include but may not be limited to the following:

1. The Contract plan view shows the center line location of each facility installed, or installed and placed out of service, to an accuracy of 1 inch at the ends and other points physically observed in accordance with the bore path report.

2. As directed by the Engineer, provide either a profile plan for each bore path, or a cross-section of the roadway at a station specified by the Engineer, or a roadway centerline profile. Show the ground or pavement surface and crown elevation of each facility installed, or installed and placed out of service, to an accuracy within 1 inch at the ends and other exposed locations. On profile plans for bore

paths crossing the roadway, show stationing of the crossing on the Contract plans. On the profile plans for the bore paths paralleling the roadway, show the Contract Plans stationing. If the profile plan for the bore path is not made on a copy of one of the Contract profile or cross-section sheets, use a 10 to 1 vertical exaggeration.

3. If, during boring, an obstruction is encountered which prevents completion of the installation in accordance with the design location and specification, and the product is left in place and taken out of service, show the failed bore path along with the final bore path on the plans. Note the failed bore path as "Failed Bore Path – Taken Out of Service". Also show the name of the Utility owner, location and length of the drill head and any drill stems not removed from the bore path.

4. Show the top elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during a subsoil investigation or the installation, show the type of material, horizontal and vertical location, top and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

5. Include bore notes on each plan stating the final bore path diameter, product diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the product, or facility placed out of service. Note if the product is a casing as well as the size and type of carrier pipe placed within the casing as part of the Contract work.

1.05 QUALIFICATIONS

A. REQUIREMENTS

Contractor shall provide at least two (2) work references for which similar work has been conducted within the last two years using the same foreman. A contact name and telephone number must be included for each reference. Conventional trenching experience or jack and bore experience will not be considered applicable. Contractor shall provide a structurally sound, leak-proof, HDPE pipe for all piping identified for installation by horizontal directional drilling. Individual pipe lengths shall be assembled by butt-fusion unless otherwise specified. Connecting fittings shall be mechanically joined and restrained to the piping as specified. Contractor shall also be responsible for all installation processes included drilling, back-reaming, management and disposal of all drilling fluid, dewatering flow around his work, and leak testing the HDPE pipe and fittings in accordance with these Specifications.

B. PIPE DESCRIPTION

Supplier shall furnish high density polyethylene pipe (HDPE) pipe conforming to AWWA C906 latest edition and ASTM F714, including all applicable standards and procedures, and meeting all applicable testing and material properties as described by those standards or within this Specification. As defined in AWWA C906, pipe and couplings shall be homogeneous throughout and free from voids, cracks, inclusions, and other defects, and shall be as uniform as commercially practicable in color, density, and other physical characteristics.

C. MANUFACTURER REQUIREMENTS

Polyethylene extrusion compound from which the polyethylene pipe is extruded must comply with application requirements for PE-4710 high molecular weight polyethylene plastic material, as described in ASTM D 3350.

D. FUSION TECHNICIAN REQUIREMENTS

Fusion Technician shall be fully qualified by the pipe supplier to install HDPE pipe of the type(s) and size(s) being used. Fusion Technician shall have three years of experience doing work of a similar nature required for this project. Qualification shall be current as of the actual date of fusion performance on the project.

PART 2 - PRODUCTS

2.01 DRILLING SYSTEM

A. DRILL RIG

The directional drilling equipment shall consist of a directional drilling rig of sufficient capacity to perform the bore and pullback the pipe, a drilling fluid mixing & delivery system of sufficient capacity to successfully complete the crossing, a guidance system to accurately guide boring operations and trained and competent personnel to operate the system. All equipment shall be in good, safe operating condition with sufficient supplies, materials and spare parts on hand to maintain the system in good working order for the duration of this project.

B. DRILL HEAD

The drill head shall be steerable by changing its rotation and shall provide the necessary cutting surfaces and drilling fluid jets.

C. MUD MOTOR (If required)

Mud motors (if required) shall be of adequate power to turn the required drilling tools.

E. DRILL PIPE
Drill pipe shall be constructed of high quality 4130 seamless tubing, grade D or better, with threaded box and pins. Tool joints should be hardened to 32-36 RC.

2.01 GUIDANCE SYSTEM

A. The Guidance System shall be of a proven type and shall be setup and operated by personnel trained and experienced with this system. The Operator shall be aware of any magnetic anomalies and shall consider such influences in the operation of the guidance system if using a magnetic system.

2.02 DRILLING FLUID (MUD) SYSTEM

A. MIXING SYSTEM
A self-contained, closed, drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid composed of bentonite clay, potable water and appropriate additives. Mixing system shall be able to shear individual bentonite particles from the dry powder to avoid clumping and ensure thorough mixing. The drilling fluid reservoir tank shall be sized for adequate storage of the mud. Mixing system shall continually agitate the drilling fluid during drilling operations.

B. DRILLING FLUIDS
Drilling fluid shall be composed of clean water and an appropriate additive. Water shall be from a clean source with a pH of 8.5-10 and/or as per mixing requirements of the Manufacturer. Water of a lower pH or with excessive calcium shall be treated with the appropriate amount of sodium carbonate or equal. The water and additives shall be mixed thoroughly and be absent of any clumps or clods. No hazardous additives may be used. Drilling fluid shall be maintained at a viscosity sufficient to suspend cuttings and maintain the integrity of bore wall.

C. DELIVERY SYSTEM
The mud pumping system shall have a minimum capacity to supply mud in accordance with the drilling equipment pull back rating at a constant required pressure. The delivery system shall have filters in-line to prevent solids from being pumped into the drill pipe. Connections between the pump and drill pipe shall be relatively leak-free. Used drilling fluid and drilling fluid spilled during drilling operations shall be contained and properly disposed of. A berm, minimum of 12" high, shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits and drilling fluid recycling system (if used) to prevent spills into the surrounding environment. Pumps and or vacuum truck(s) of sufficient size shall be in place to convey excess drilling fluid from containment areas to storage

facilities.

2.04 OTHER EQUIPMENT

A. PIPE ROLLERS
Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe while being hydro-tested and during pull-back operations. Sufficient number of rollers shall used to prevent excess sagging of pipe.

B. PIPE RAMMERS
Hydraulic or pneumatic pipe rammers may only be used if necessary and with the authorization of Engineer.

C. RESTRICTIONS
Other devices or utility placement systems for providing horizontal thrust other than those defined in the preceding sections shall not be used unless approved by the Engineer prior to commencement of the work. Consideration for approval will be made on an individual basis for each specified location. The proposed device or system will be evaluated prior to approval or rejection on its potential ability to complete the utility placement satisfactorily without undue stoppage and to maintain line and grade within the tolerances prescribed by the particular conditions of the project.

PART 3 - EXECUTION

3.01 GENERAL

A. The Contractor must schedule a pre-bore meeting with the City of Cocoa Utilities Department. The Engineer must be notified 48 hours in advance of starting work. The Directional Bore shall not begin until the Engineer is present at the job site and agrees that proper preparations for the operation have been made. The Engineer approval for beginning the installation shall in no way relieve the Contractor of the ultimate responsibility for the satisfactory completion of the work as authorized under the Contract. It shall be the responsibility of Engineer to provide inspection personnel at such times as appropriate without causing undue hardship by reason of delay to the Contractor.

3.02 PERSONNEL REQUIREMENTS

A. All personnel shall be fully trained in their respective duties as part of the

directional drilling crew and in safety.

3.03 DRILLING PROCEDURE

A. SITE PREPARATION

1. Prior to any alterations to work-site, contractor shall photograph or videotape entire work area, including entry and exit points. One copy of this record shall be given to Engineer and one copy to remain with contractor for a period of one year following the completion of the project.
2. Work site, as indicated on drawings, shall be graded or filled to provide a level working area. No alterations beyond what is required for operations are to be made. Contractor shall confine all activities to designated work areas.
3. Verify that there are no conflicts with existing utilities prior to the start of work.

B. DRILL PATH SURVEY

Entire drill path shall be accurately surveyed with entry and exit stakes placed in the appropriate locations within the areas indicated on drawings. If contractor is using a magnetic guidance system, drill path will be surveyed for any surface geo-magnetic variations or anomalies.

C. ENVIRONMENTAL PROTECTION

Contractor shall place silt fence between all drilling operations and any drainage, wetland, waterway or other area designated for such protection by contract documents, state, federal and local regulations. Additional environmental protection necessary to contain any hydraulic or drilling fluid spills shall be put in place, including berms, liners, turbidity curtains and other measures. Contractor shall adhere to all applicable environmental regulations. Fuel or oil may not be stored in bulk containers within 200' of any waterbody or wetland.

D. SAFETY

Contractor shall adhere to all applicable state, federal, and local safety regulations and all operations shall be conducted in a safe manner. Safety meetings shall be conducted at least weekly with a written record of attendance and topic submitted to Engineer.

E. PIPE

1. HDPE pipe shall be manufactured in accordance with and conforming with AWWA C 906 latest edition and ASTM F714. Pipe diameters are as shown on the drawings. Pipe wall thickness shall be DR 11. Pipe shall be in accordance with ASTM D2241 for IPS standard dimensions as indicated in these Specifications.

2. Polyethylene pipe shall be rated for use with water at 73.4 degrees F at a hydrostatic design basis of 1,600 psi.

3. HDPE pipe shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe.

4. Polyethylene extrusion compound from which the polyethylene pipe is extruded must comply with application requirements for PE-4710 high molecular weight polyethylene plastic material, as described in ASTM D 3350.

5. Pipe shall be furnished in standard laying lengths not to exceed 50 feet and no shorter than 20 feet

6. The pipe color shall be solid color or co-extruded with color strips for wastewater, potable water or reclaimed water and marked to include nominal pipe or tubing size; type of plastic material, i.e., PE-4710; standard thermoplastic pipe dimension ratio or pressure rating in psi for water at 73.4oF @100 psi; ASTM designation with which pipe complies; and manufacturer's name or trademark and code.

7. All molded fittings and fabricated fittings shall be fully pressure rated to match the pipe STANDARD DIMENSION RATIO pressure rating to which they are made. All fittings shall be molded or fabricated by the manufacturer. No Contractor fabricated fittings shall be used unless approved by the Utility.

8. The manufacturer of the HDPE pipe shall supply all HDPE fittings and accessories as well as any adapters and/or specials required to perform the work as shown on the Drawings and specified herein.

9. All fittings shall be installed using butt-fused fittings, thermo-fused fittings/couplings, or flanged adapters and must be approved by the Utility. Size on size wet taps are prohibited for HDPE pipe

10. All transition from HDPE pipe to ductile iron or PVC shall be made per the approval of Engineer and per the HDPE pipe manufacturer's recommendations and specifications. A molded flange connector adapter within a carbon steel back-up ring assembly shall be used for pipe type transitions. Ductile iron back-up rings shall mate with cast iron flanges per ANSI B16.1. A 316 stainless steel back-up ring shall mate with a 316 stainless steel flange per ANSI B16.1

11. Stainless steel stiffener inserts shall be installed in the bore of HDPE pipe when connection plain end HDPE pipe with mechanical fittings of valves. Stiffeners may be one or two pieces and shall be constructed of 316 stainless steel

12. Pipe shall be homogeneous throughout and be free of visible cracks, holes, foreign materials, blisters, or other deleterious faults.

13. HDPE pipe shall be heat fused and pressure tested as per manufacturer's guidelines before installation in the borehole. During assembly and prior to pullback, pipe must be laid out in such a way as to minimize interference to pedestrian and vehicular traffic. Pipe shall be welded/fused together in one length, if space permits. Pipe will be placed on pipe rollers before pulling into bore hole with rollers spaced close enough to prevent sagging of pipe.

F. FUSION PROCESS FOR HDPE INSTALLATION

1. General

a. HDPE pipe will be handled in a safe and non-destructive manner before, during, and after the fusion process and in accordance with this Specification and pipe supplier's recommendations.

b. The pipe shall be joined with butt, heat fusion joints as outlined in ASTM D2657 and conform to the Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe, Technical Report TR-33/2005, published by the Plastic Pipe Institute (PPI). All joints shall be made in strict compliance with the manufacturer's recommendations. A factory qualified joining technician as designated by pipe manufacturer or experienced, trained technician shall perform all heat fusion joints. Training records for qualified fusion technicians shall be available to Owner or Engineer, upon request.

c. Lengths of pipe shall be assembled into suitable installation lengths by the butt- fusion process. All pipes so joined shall be made from the same class and type of raw material made by the same raw material supplier. Pipe shall be furnished in standard laying lengths not to exceed 50 feet and no shorter than 20 feet.

d. On days butt fusions are to be made, the first fusion shall be a trial fusion in the presence of an inspector. The following shall apply:

1) The fusion or test section shall be cut out after cooling completely for inspection.

2) The test section shall be 12” or 30 times (minimum) the wall thickness in length and 1” or 1.5 times the wall thickness in width (minimum).
3) The joint shall be visually inspected as to continuity of “beads” from the melted material, and for assurance of “cold joint” prevention (i.e. – joint shall have visible molded material between walls of pipe). Joint spacing between the walls of the two ends shall be a minimum of 1/16” to a maximum 3/16”.

e. Each joint fusion shall be recorded and logged by an electronic monitoring device (data logger) affixed to the fusion machine. Joint data shall be submitted as part of the As-Recorded information, in accordance with this specification.
f. The HDPE pipe will be installed in a manner so as not to exceed the recommended bending radius.
g. The polyethylene flange adapters at pipe material transitions shall be backed up by stainless steel flanges conforming to ANSI B16.1 and shaped as necessary to suit the outside dimensions of the pipe. The flange adapter assemblies shall be connected with corrosion resisting bolts and nuts of Type 316 Stainless Steel as specified in ASTM A726 and ASTM A307. All bolts shall be tightened to the manufacturer’s specified torques. Bolts shall be tightened alternatively and evenly. After installation, apply a bitumastic coating to bolts and nuts.
h. Care shall be taken in loading, transporting and unloading to prevent damage to the pipe. Pipe or fittings shall not be dropped. All pipe or fittings shall be examined before installation, and no piece shall be installed which is found to be defective. Any damage to the pipe shall be repaired as directed by the Engineer. If any defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner by the contractor, at his own expense.
i. Under no circumstances shall the pipe or accessories be dropped into the trench or forced through a directional bore upon “pull-back”.
j. Care shall be taken during transportation of the pipe such that it will not be cut, kinked or otherwise damaged.
k. Ropes, fabric or rubber protected slings and straps shall be used when handling pipes. Chains, cables or hooks inserted into the pipe ends shall not be used. Two slings spread apart shall be used for lifting each length of pipe.
l. Pipes shall be stored on level ground, preferably turf or

sand, free of sharp objects, which could damage the pipe. Stacking of the polyethylene pipe shall be limited to a height that will not cause excessive deformation of the bottom layers of pipes under anticipated temperature conditions. Where necessary due to ground conditions, the pipe shall be stored on wooden sleepers, spaced suitably and of such width as not to allow deformation of the pipe at the point of contact with the sleeper or between supports.

m. Pipe shall be stored on clean level ground to prevent undue scratching or gouging. The handling of the pipe shall be in such a manner that the pipe is not damaged by dragging it over sharp and cutting objects. The maximum allowable depth of cuts, scratches or gouges on the exterior of the pipe is 5 percent of wall thickness. The interior pipe surface shall be free of cuts, gouges or scratches.

n. Pipe shall be laid to lines and grade shown on the Drawings with bedding and backfill as shown on the Drawings.

o. When laying is not in progress, including lunchtime, the open ends of the pipe shall be closed by fabricated plugs, or by other approved means.

p. Sections of pipe with cuts, scratches or gouges exceeding 5 percent of the pipe wall thickness shall be removed completely and the ends of the pipeline rejoined.

q. The pipe shall be joined by the method of thermal butt fusion. All joints shall be made in strict compliance with the manufacturer's recommendations.

r. All HDPE pipe must be at the temperature of the surrounding soil at the time of backfilling and compaction.

s. If a defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in a satisfactory manner at no additional cost to the Utility. All pipe and fittings shall be thoroughly cleaned before installation, shall be kept clean until they are used in the work and when laid, shall conform to the lines and grades required.

t. Restrained joints shall be installed where shown on the Drawings or as directed by the Engineer.

u. Where HDPE pipe is installed by pulling in tension, the recommended Safe Pulling Force, according to the pipe supplier, will not be exceeded.

v. Only appropriately sized, and outfitted fusion machines that have been approved by the pipe supplier shall be used for the fusion process. Fusion machines must incorporate the following properties, including the following elements:

1) Heating plate surfaces shall be inspected for cuts

and scrapes and shall be free of dirt and residue. Heater surfaces should be between 400° F (minimum) to 450° F (maximum). Measure the temperature @ 12:00, 3:00, 6:00 and 9:00 o'clock positions using a pyrometer or infrared thermometer at locations where the heating plate will contact the pipe/fitting ends. The maximum temperature difference between any two points on a single heating surface must not exceed 24° F. If this temperature is exceeded, the heating plate shall be cleaned per the manufacturer's recommendations.

2) Carriage - Carriage shall travel smoothly with no binding at less than 50 psi. Jaws shall be in good condition with proper inserts for the pipe size being fused. Insert pins shall be installed with no interference to carriage travel.

3) General Machine - Overview of machine body shall yield no obvious defects, missing parts, or potential safety issues during fusion.

4) Datalogger - The current version of the pipe supplier's recommended and compatible software shall be used. Protective case shall be utilized for the hand held wireless portion of the unit. Datalogger operations and maintenance manual shall be with the unit at all times. If fusing for extended periods of time, an independent 110V power source shall be available to extend battery life.

w. Other equipment specifically required for the fusion process shall include the following:

1) Pipe rollers shall be used for support of pipe to either side of the machine.

2) A weather protection canopy that allows full machine motion of the heat plate, fusion assembly and carriage shall be provided for fusion in inclement and/or windy weather.

3) Fusion machine operations and maintenance manual shall be kept with the fusion machine at all times.

4) Facing blades specifically designed for cutting fusible polyvinyl chloride pipe.

2. Joint Recording

a. Each fusion joint shall be recorded and logged by an electronic monitoring device (data logger) connected to the

fusion machine. The fusion data logging and joint report shall be generated by software developed specifically for the butt-fusion of thermoplastic pipe. The software shall register and/or record the parameters required by the manufacturer and these Specifications. Data not logged by the data logger shall be logged manually and be included in the Fusion Technician's joint report.

G. PILOT HOLE

1. Pilot hole shall be drilled on bore path. As-built variance from designed bore path shall not exceed +/- 0.5 feet in the vertical plane and +/- 2 feet in the horizontal plane. In the event that pilot does deviate from bore path in excess of these variances, contractor will notify Engineer and Engineer may require contractor to pull-back and re-drill from a location along bore path before the deviation. Contractor is responsible for providing the certified as-built information showing vertical depth to the centerline of the pipe at 10' intervals and any deviations in the horizontal plane measured from fixed objects.
2. In the event that a drilling fluid fracture, inadvertent returns or returns loss occurs during pilot hole drilling operations, contractor shall cease drilling, wait at least 30 minutes, inject a quantity of drilling fluid with a viscosity exceeding 120 seconds as measured by a March funnel and then wait another 30 minutes. If mud fracture or returns loss continues, contractor will cease operations and notify Engineer. Engineer and contractor will discuss additional options and work will then proceed accordingly.
3. When crossing DOT roadways it is required that the casing pipe is 10 times the reamer diameter beneath the surface.

H. REAMING

Upon successful completion of pilot hole, contractor will ream borehole to a minimum of 25% greater than outside diameter of pipe using the appropriate tools. Contractor will not attempt to ream at one time more than the drilling equipment and mud system are designed to safely handle.

I. PULL-BACK

1. After successfully reaming borehole to the required diameter, contractor will pull the pipe through the borehole. In front of the pipe will be a swivel. Once pull-back operations have commenced, operations must continue without interruption until pipe is completely pulled into bore hole. During pull-back operations contractor will not apply more than the maximum safe pipe pull

pressure at any time.

2. In the event that pipe becomes stuck, contractor will cease pulling operations to allow any potential hydro-lock to subside and will commence pulling operations. If pipe remains stuck, contractor will notify Engineer. Engineer and contractor will discuss options and then work will proceed accordingly.

3.04 PIPE TESTING AND DISINFECTION

A. Test and disinfect pipeline in accordance with Section 02660.

3.05 DISPOSAL OF SURPLUS FLUIDS

A. All drill fluid excess should be contained in entry and/or exit pits and pumped as needed into additional on-site storage tanks, tanker trucks, vac trucks, etc. Contractor shall dispose of drill fluid excess to the satisfaction of the Owner. After extraction drill fluids, pits and work areas are to be restored to equal or better condition than pre-construction condition. At no time will surface runoff of drill fluid be allowed.

B. The Contractor at no extra charge shall dispose all material not needed or not suitable for backfilling over or around the entry and receiving pits. The disposal shall be subject to local codes and regulations.

3.06 SITE RESTORATION

A. Following drilling operations, contractor will de-mobilize equipment and restore the worksite to original condition. All excavations will be backfilled and compacted in accordance with these specifications. Landscaping will be restored to original.

3.07 RECORD KEEPING

A. AS-BUILTS

1. Contractor shall maintain a daily project log of drilling operations and guidance system log with a copy given to Engineer at completion of project. Contractor shall certify as-built drawings as to accuracy.

*****END OF SECTION *****

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SECTION 02480

SODDING

PART 1- GENERAL

1.01 SCOPE OF WORK

A. The Contractor will establish a healthy stand of grass on slopes, shoulders, Lawns and other areas as shown on the Drawings and specified herein.

B. Seed and mulch will not be acceptable for restoration of sodded areas disturbed by the construction.

C. Related Work

1. Section 02220 Excavating, Backfill and Compaction
2. Section 02482 Landscaping for Utilities

1.02 SUBMITTALS

A. The Contractor will submit shop drawings as required by the General Conditions. The shop drawings will include information regarding materials, application rates, and grassing methods.

PART 2- PRODUCTS

2.01 MATERIALS

A. Sod: Healthy, certified, weed-free sod meeting the requirements of FDOT Section 981. Unless the Drawings require another species of grass, Bahia will be used for all sodding. For locations where the homeowner has St. Augustine sod, the replacement sod shall be St. Augustine sod.

B. Fertilizer: Uniform 12-8-8 grade meeting the requirements of FDOT Section 982.

C. Limestone: Agricultural grade limestone meeting the requirements of FDOT Section 982.

D. Water: Suitable water meeting the requirements of FDOT Section 983.

PART-3 PRODUCTS

3.01 SODDING

A. All equipment, construction methods, and maintenance related to sodding will be done in accordance with FDOT Section 575. Fertilizer and limestone will be applied at the following rates:

Fertilizer:	500 lbs./acre
Limestone:	1,000 lbs./acre

****END OF SECTION ****

SECTION 02482

LANDSCAPING FOR UTILITIES

PART 1- GENERAL

1.01 SCOPE

A. This section covers all work necessary to furnish and install topsoil, fertilizer, sod, trees, bushes, ornamental plants, fencing, planters, temporary storage of trees, and related items necessary to complete the work shown or specified (if any).

B. Repair or replace lawn areas, trees, ornamental plants, and associated irrigation system components, damaged or destroyed during construction of the Work included in this Contract, unless otherwise shown on the Drawings. Repair or replace fences, mailboxes, planters, and other items damaged or destroyed during construction of the work included in this Contract, unless otherwise shown on the Drawings.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this specification to the extent required by the reference thereto. Latest revisions will apply, unless otherwise shown or specified.

B. Florida Department of Transportation (FDOT) Specifications

FDOT Specification	Florida Department of Transportation Standard Specifications for Road and Bridge Construction, current edition

C. Florida Department of Agriculture Standards

D. City of Cocoa Technical Provisions and Standard Details Manual

1.03 DEFINITIONS

A. Lawn Areas

Lawn areas include grassed areas that are cut and maintained on a routine basis. Lawn areas include lawns at homes and businesses and grass shoulders of streets, roads, and highways.

1.04 SUBMITTALS

A. No submittals are required for the products included in this section of the Specifications.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Be responsible for the delivery, storage, and handling of products. Deliver packaged products to the site in the manufacturer's original sealed packaging materials, clearly marked to identify the manufacturer and the contents.

B. Promptly remove damaged, deteriorated, or unsuitable products from the job site. Replace damaged, deteriorated, or unsuitable products with undamaged, undeteriorated, and suitable materials.

PART 2- PRODUCTS

2.01 STRIPPING AND STOCKPILING OF TOPSOIL

A. Strip the upper 6 to 12 inches of mulch with small soil and vegetation and other organic material removed therewith from the excavated areas. Clean topsoil may be stockpiled for reuse as the upper 6 inches of the areas to be sodded.

B. Do not intermix grass, weeds, roots, rootmail, brush, and stones larger than 3 inches with the stockpiled topsoil. Dispose of root contaminated soil.

2.02 TOPSOIL

A. Stockpile topsoil for re-use in landscape work. If quantity of stockpiled topsoil is insufficient, provide additional topsoil as required to complete landscape work.

B. If required, provide new topsoil that is fertile, friable surface soil, reasonably free of subsoil, clay Jumps, brush, weeds, and other litter, and free of roots, stumps, stones larger than 1-1/2 inch in any dimension, and other extraneous or toxic matter harmful to plant growth.

C. Obtain topsoil from local sources or from areas having similar soil characteristics to that found at the project site. Obtain topsoil only from naturally, well-drained sites where topsoil occurs in a depth of not less than 4 inches; do not obtain from bogs or marshes.

2.03 FERTILIZER

A. Fertilizers will be uniform in composition, delivered to the site fully labeled in conformance with applicable state fertilizer laws and bear the analysis, trade name or trademark, warranty of the producer, and application instructions.

B. Apply fertilizer and adjust soil pH as recommended by the Florida Extension Soil Testing Laboratory (F.E.S.T.L.) and as approved by the Owner.

2.04 EXISTING SOD

At the Contractor's discretion, existing sod may be reused in exchange of new sod providing the following provisions are met:

A. Sod is machine stripped at a uniform soil thickness of approximately 1 inch. Exclude top growth and thatch from measurement for thickness and determine at the time of cutting in the field.

B. Sod will be cut with clean, smooth, straight edges to minimize restoration.

C. Contractor is responsible for stockpiling and maintaining the sod prior to replacement and for the Contract warranty period.

D. Disturbed areas will be restored to a condition at least as good as the pre-existing condition.

2.05 NEW SOD

A. All sod will be certified to meet FDA Standards, absolutely true to variety type, and free from weeds or other objectionable vegetation.

B. Provide certified nursery grown sod to match existing grass, not less than 18 months old. Sod will have been grown in a sterilized, sandy loam-growing medium.

C. Sod will be machine stripped at a uniform soil thickness of approximately 1 inch, plus or minus 1/4 inch for nursery grown sod. Exclude top growth and thatch from measurement for thickness and determine at the time of cutting in the field.

D. Provide sod with root development such that standard size pieces will support their own weight and retain their shape when:

1. Suspended vertically from a firm grasp on the uppermost 10% of area; or
2. When rolled and unrolled three times.

E. Provide sod reasonably free from diseases and soil borne insects.

2.06 TEMPORARY STORAGE OF TREES

A. Trees identified on the Drawings to be relocated will be stored in an area provided by the contractor. Contractor will protect root system of trees to be relocated during the removal and storage process. Tree(s) will be installed in conformance with Section 580 of the FDOT Specification in an area as directed by the City of Cocoa Field Inspector.

2.07 FENCE AND OTHER PRODUCTS

A. Provide new and unused replacement fence, mailboxes, planters, and other items of the same type as the items removed. Fence, mailboxes, planters, and other items will be of equal quality to the items removed when the items removed were new. Undamaged existing fence, mailboxes, planters, and other items may be reinstalled rather than replaced.

2.08 REPLACEMENT TREES

A. Refer to pertinent requirements of the Land Development Code of the City of Cocoa Beach, Chapter IV, Article V.

PART 3- EXECUTION

3.01 GRADING

A. Fine grade all non-paved areas disturbed during construction smooth and uniform to finish elevations and grades the same as elevations and grades prior to construction, unless otherwise shown on the Drawings.

3.02 SODDING

A. Sod areas where grass has been disturbed or removed during construction of the Work in conformance with Section 575 of the FDOT Specification.

B. Any area outside the limits of work that is disturbed by construction will be immediately replaced with sod or ground cover of the species that was disturbed.

3.03 PLANTING TREES AND OTHER PLANTS

A. Install trees and other plants in conformance with Section 580 of the FDOT Specification, and the pertinent requirements of the Land Development Code of the City of Cocoa Beach, Chapter IV, Article V.

3.04 FENCING AND OTHER RESTORATION

A. Locate fences, mailboxes, planters, and other items in the same location that the item had been prior to construction. Erect wire and board fences plumb and on straight lines. Set mailboxes, posts, poles, and similar items plumb. Restore planters and similar items to the same shape the items had been prior to construction.

B. Install wire fences with the proper tension for the type of wire fence restored. Properly erect or construct other fences and items.

3.05 RESTORATION AND CLEAN-UP

A. Restoration of disturbed areas will be totally completed at the end of each workweek regardless of what stage the construction is in. If the Contractor fails to adequately restore disturbed areas, as outlined above, by two hours after the end of work on any Friday, the Owner may mobilize its own or outside forces to complete the restoration as specified. In such a case, a deductive change order will be issued including an appropriate reduction in the Contract Price for all direct and indirect costs of the restoration. Failure to provide adequate weekly restoration in excess of two times will be grounds for termination of the Contract at the Owner's option. The above requirement will not apply if the Contractor is on-site working throughout the weekend. Weekend work must be approved by the owner 48 hours in advance.

B. Clean up the job site following landscaping. Remove rubbish, excess materials, temporary structures, and equipment. Leave the work in a neat and presentable condition.

****END OF SECTION****

SECTION 02516

BRICK PAVING

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

A. Concrete: State of Florida, Department of Transportation, "Standard Specifications for Road and Bridge Construction, “2016”, as amended to date.

B. Installation standards: Brick Institute of America (BIA) recommendations.

C. Maintaining Agency: City of Cocoa Beach Public Works

1.02 SUBMITT ALS

A. Product data:
   1. Concrete mix design.

B. Samples:
   1. Brick pavers for color selection.
   2. Grout for color selection.

C. Contract closeout information:
   1. Maintenance data.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Acceptable Manufacturers:
   1. Materials listed.
      a. Base:
         1) As noted in the Plans
   2. Expansion joint filler:
      a. Base:
         1) Sonneborn Building Products.
      b. Optional:
         1) Meadows, WR.
      c. Approved equal

3. Cleaner:
   a. Base:
      1) ProSoCo.
   b. Approved equal

4. Paver coating:
   a. Base:
      1) Hillyard.
   b. Optional:
      1) ProSoCo.
   c. Approved equal

B. Pavers:
1. ASTM-C902, Class SX, Traffic Type I, application PS.
2. Material:
   1) Appian-Stone as manufactured by Paver Systems of Orlando, Florida or approved equal
3. Size:
   a. Thickness
      1) 2-3/8"
   b. Sidewalk Interior
      1) 6-5/16" x 6-5/16"
      2) 6-5/l6" x 9-7/16"
   c. Sidewalk Border
      1) 3-7/8" x 7-7/8"
4. Colors and finishes as approved by the City of Cocoa Beach.
   a. Sidewalk Interior
      1) Adobe
   b. Sidewalk Border
      1) Charcoal
5. Patterns shall be "T" Pattern utilizing 70% rectangles and 30% squares

C. Concrete base: Compacted recycled concrete

D. Setting bed:
1. Portland cement: ASTM-C 150.
2. Sand: ASTM-C33.
3. Water: Potable.

E. Grout:
1. Latex - Portland cement grout similar to mortar for setting bed.
2. Color as approved by the City of Cocoa.

F. Expansion joint filler:
1. ASTM-0545, flexible foam, 13 mm 1/2 IN thick.
a. Base: Sonneborn "Sonoflex F."
b. Optional: WR Meadows "Ceramar."
c. Approved equal

G. Sealant:
1. l. F.S.TT-S-00227E, Type I, Class A, polyurethane type.
2. Use self-leveling type for horizontal joints.
3. Use gun-grade non-sag type for horizontal and vertical joints.

H. Cleaner:
1. Base Product: ProSoCo, product most suited to pavers specified.
2. Approved equal

I. Paver coating:
1. Base: Hillyard, Super Shinol.
2. Optional: Prosoco, Protectile.
3. Approved equal

PART 3- EXECUTION

3.01 INSPECTION

A. Verify suitability of substrate to accept installation.

B. Installation constitutes acceptance of responsibility for performance.

3.02 PREPARATION

A. Brick on grade:
1. Set top of concrete base to required elevation (brick thickness plus 25 mm 1 IN below finished grade).
2. Do not place concrete until subgrade and forms have been checked for line and grade.
a. Do not place concrete around structures or frames until they have been brought to required grade and alignment.
3. Moisten subgrade as required to provide a uniform dampened condition at time concrete is placed.

3.03 INSTALLATION

A. Remove existing brick pavers with care in order to minimize quantity damaged.

B. Recycle existing brick pavers that were undamaged during removal and blend with new brick pavers.

C. On properly compacted subgrade, install minimum 100 mm 4 IN to 6 IN layer of recycled concrete.
   1. Provide rough finish for bonding of setting bed.
   2. Instal1 expansion joints as indicated and where pavement abuts other structures.
   3. Set joint filler to within 13 mm (l/2 IN) of finished surface.

D. Spread 25 mm 1 IN-thick setting bed over concrete base.

E. Set pavers into setting bed while mortar is still plastic or set in thin set mortar over prepared setting bed.

F. Blend surrounding existing brick pavers with new brick pavers during installation.

G. Install in accordance with ANSI and BIA recommendations.

H. Cut units with powered masonry saw.

I. Lay out so that fields or patterns center in areas.

J. Avoid pieces smaller than 0.5 brick.

K. Tap each unit firmly into place to assure full adhesion.

L. Set units with nominal 13 mm 1/2 IN joints.

M. Coat tops of pavers with paver coating.

N. Force grout in to assure complete filling of joints.

O. Remove surplus grout and leave faces clean.

P. Provide sealant in joints where pavers abut vertical surfaces, around penetrations and over expansion or control joints and not over 3660 mm 12 FT OC in field.

3.04 PROTECTION

A. Protect installed pavers with taped in place polyethylene.

B. Provide traffic protection as required.

3.05 CLEANING

A. Remove protective coverings.

B. Clean entire surface with cleaning compound.

C. Protect adjacent surfaces from damage during cleaning.

D. Leave installation clean.

**** END OF SECTION ****

SECTION 02574

PAVEMENT REMOVAL AND REPLACEMENT

PART 1 - GENERAL

3.01 DESCRIPTION

A. Work included under this Section consists of cutting, removing, milling, protecting and replacing existing pavements of the various types encountered, roadways, streets, driveways, sidewalks, curb and combination curb and gutter, and underdrains where encountered and broken into. Restoration work under this Section will start immediately after trench has been backfilled and will continue to progress at the same rate as pipe laying.

1. Open cuts will not be permitted until scheduled and as approved by the Owner.
2. Where existing pavement is removed for the purpose of adjusting existing utilities, constructing or removing pipe, appurtenances, facilities, or structures; pavement and striping will be replaced in equal or better section than the original.
3. The Contractor will remove excavated pavement material from the site and dispose of appropriately.

B. Related Work

1. Section 02220 Excavating, Backfill and Compaction

PART 2- PRODUCTS

2.01 GENERAL

A. Materials of construction will be as specified in these contract documents and as specified by the local authority having jurisdiction.

PART 3- EXECUTION

3.01 PAVEMENT AND SIDEWALK REMOVAL

A. Pavements, including all surface courses and base courses, will be removed to a line back from each edge of the trench or other excavation, as shown on the Drawings, cut straight, clean and square, with a power saw or other tools and equipment suitable for the work. All paving to-be replaced will match in every respect the type of existing pavement, or will be superior to the existing pavement and materials. All milling and resurfacing to be done in accordance with FDOT Specifications.

B. Concrete sidewalks, curbs, combination curb and gutter, walks, drive ribbons, or driveways will be removed by initially sawing the structure, with a suitable power saw, not more than 1-foot beyond the edge of the trench of excavation. When a formed joint in the concrete exists within 3-feet of the proposed saw cut and parallels the proposed saw cut, the removal line will be extended to the formed joint. After sawing, the material will be removed.

3.02 PROTECTION OF EXISTING IMPROVEMENTS

A. The Contractor will be responsible for the protection of all pavements, sidewalks and other improvements within the work area. All damage to such improvements, as a result of the Contractor's operations, beyond the limits of the work of pavement replacement as described herein, will be repaired by the Contractor at his expense.

3.03 CONCRETE SIDEWALKS, WALKWAYS, DRIVEWAYS, DRIVEWAY RIBBONS AND CURBS

A. Concrete sidewalks, driveways, driveway ribbons and curbs required to be removed for the installation of facilities within this Contract will be restored. Class I concrete, as defined in FDOT Specifications (Section 347) will be used in all restoration work. Replacement portions of these items will conform to the lines, grades and cross sections of the removed portions. Concrete sidewalks will be of 4-inch thickness; concrete driveways and driveway ribbons will be of at least 6-inch thickness. Sidewalks, driveways, and driveway ribbons will be reinforced with 6x6-W1.4xW1.4 welded wire fabric. Sidewalks will be in accordance with FDOT Specifications (Section 522) and have expansion joints at each end of the new sections and at intervals not to exceed 25 feet. Sidewalks will also have expansion joints where new sidewalks abut existing curbs or walls. Intermediate contraction joints will be provided at 5'-0" on center in all sidewalks. Concrete driveways and driveway ribbons will be in accordance with FDOT Concrete Pavement Specifications (Section350) and FDOT Index No. 515. Replaced concrete curb and/or gutter will joint neatly to the remaining sections.

B. Vehicular access to private properties will not be restricted for more than 4 consecutive hours.

C. The Contractor will provide written notice to the Owner a minimum of 48 hours in advance of restricting access to private properties.

3.04 PERFORMANCE

A. Settlement of Pavement
All settlement and raveling of pavement occurring during the construction and warranty periods will be repaired or replaced by the Contractor at no

additional cost to the Owner.

****END OF SECTION****

SECTION 02660

PRESSURE PIPES AND ACCESSORIES

PART 1- GENERAL

1.01 SUMMARY

A. This section covers the furnishing and installing of pipe, fittings, valves, hydrants and appurtenances necessary to complete work shown or specified. Except where specifically noted, this section applies to potable water mains, reclaimed water mains, and force mains installed with this project.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title shall form a part of this specification to the extent required by the reference thereto latest revisions shall apply, unless otherwise shown or specified.

B. American National Standards Institute (ANSI) and American Water Works Association (AWWA) Standards

ANSI B2.l	American National Standard for Pipe Threads (Except Dryseal)
ANSI Bl6.l	American National Standard for Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800
ANSI/AWWA C104/A2 l.4	American National Standard for Cement-Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water
ANSI/AWWA C105/A21.5	American National Standard for Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids
ANSI/ AWW A C110/A21.l 0	American National Standard for Ductile iron and Gray Iron Fittings, 3-inch through 48-inch for Water and Other Liquids
ANSI/ AWWA C 111/ A2 l.11-95	American National Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings
ANSI/AWWA C115/A21.15	American National Standard for Flanged Ductile Iron and Gray Iron Pipe with Threaded Flanges
ANSI/AWWA C151/A21.51	American National Standard for Ductile Iron Pipe, Centrifugally Cast in Metal Molds or

	Sand-Lined Molds, for Water or Other Liquids
ANSI/AWWA C153/A21.53	American National Standard for Ductile Iron Compact Fittings 3-inch through 16-inch for Water and Other Liquids
ANSI/AWWA C504	AWWA Standard for Rubber-Seated Butterfly Valves
ANSI/ AWWA C509	AWW A Standard for Resilient-Seated Gate Valves, 3through 12 NPS, for Water and Sewage Systems
ANSI/AWWA C515	AWWA Standard for Reduced-Wall, Resilient Seated Gate Valves, Water Supply Service
ANSI/A WWA C600	A WWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances
ANSI/ AWWA C605	AWWA Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water
ANSI/AWWA C651	AWWA Standard for Disinfecting Water Mains ANSI/ AWWA C8OO A WWA Standard for Underground Service Line Valves and Fittings
ANSI/ AWWA C900	A WWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch for Water
ANSI/AWWA C901	A WW A Standard for Polyethylene (PE) Pressure Pipe and Tubing 2-inch through 3-inch for Water Service
ANSI/ AWWA C905	A WWA Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe Nominal Diameters 14-inch through 36-inch

C. American Society for Testing and Materials (ASTM) Standards

ASTM B62	Specification for Composition Bronze or Ounce Metal Castings
ASTMB88	Specification for Seamless Copper Water Tube
ASTM D2241	Polyvinylchloride (PVC) Plastic Pipe (SDR-PR)
ASTM D2487	Classification of Soils for Engineering Purposes
ASTM D2737	Specification for Polyethylene (PE) Plastic Tubing
ASTM D2774	Recommended Practice for Underground

	Installation of Thermoplastic Pressure Piping

D. Manufacturer's Standardization Society of the Valve and Fittings Industry (MSS) Standards

MSS SP-60	Connecting Flange Joint Between Tapping Sleeves and Tapping Valves Tapping Valves

1.03 DEFINITIONS

A. Abbreviations

ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
MSS	Manufacturer's Standardization Society of the Valve and Fittings Industry

B. All pipe, fitting, and valve sizes and all references to pipe diameter on the Drawings or in the Specifications are intended to be nominal size or diameter, and shall be interpreted as such.

1.04 SUBMITTALS

A. Submittals shall be in accordance with the General Conditions and Division 1 - General Requirements.

B. Submit the following:

1. Manufacturer's Certificate of Compliance certifying compliance with the applicable specifications and standards.
2. Shop drawings for valves appurtenances and pipe including performance data and physical characteristics for valves and with dimensioned layouts of piping.
3. Manufacturer's written installation instructions for valves.
4. Manufacturer's operation and maintenance material and manuals for valves and hydrants.
5. Bacteriological test results.
6. Hydrostatic pressure test results
7. Manufacturer's standard color samples for paint.

1.05 QUALITY ASSURANCE

A. Marking
Mark each pipe, fitting, and valve and hydrant in conformance with the applicable standard or specification.

B. Testing

1. Perform factory tests in accordance with the applicable specification or standard.
2. Perform field tests specified in this Section.

C. Disinfection

Disinfect both potable and reclaimed water utilities piping constructed under this Contract. Collect samples of water from the water piping after the piping has been disinfected. Submit the samples to the applicable regulatory agency for bacteriological analysis. Collection and submittal of these samples shall meet the requirements of the applicable regulatory agency.

1.06 DELIVERY, STORAGE, AND HANDLING

A. The Contractor shall be responsible for the delivery, storage, and handling of products.

B. Load and unload all pipe, fittings, and appurtenances by hoists or skidding. Do not drop products. Do not skid or roll products on or against other products. Use slings, hooks, and pipe tongs in such a manner that will prevent damage to products.

C. Keep stored products safe from damage or deterioration. Keep the interior of pipe, fittings, valves, and appurtenances free from dirt or foreign matter. Drain and store valves in a manner that will protect valves from damage. Store gaskets, plastic pipe and fittings, and other products which may be deteriorated by sunlight in a cool location out of direct sunlight. Keep gaskets out of contact with petroleum products.

D. Store valves and appurtenances in accordance with manufacturer's recommendations.

E. Do not stack ductile iron pipe higher than the limits shown in ANSI/AWWA C600. Stacking of polyvinyl chloride pipe shall be in accordance with the recommendations of the pipe manufacturer. Do not stack fittings, valves, or valve boxes.

F. Promptly remove damaged products from the job site. Replace damaged

products with undamaged products at no additional cost to the Owner.

PART 2- PRODUCTS

2.01 GENERAL

A. All pipe, fittings, valves, hydrants and appurtenances shall be as shown on the Drawings and specified in this Section. Except for adjustments, i.e. realignment and lowering existing mains in place, all pipe, fittings, valves, and appurtenances shall be new and unused.

2.02 BURIED PRESSURE PIPE AND FITTINGS

A. Ductile Iron Pipe and Fittings

1. Pipe
   a. Ductile iron pipe will be cement lined pressure Class 350 conforming to AWWA specification C151.
   b. Unless specifically noted or specified otherwise, pipe joints shall be push-on type conforming to ANSI/AWWAC111/A21.11. Restrained joints shall be American Fast-Grip Gasket for Fastite Joint Pipe, EBBA Iron Megalug for Mechanical Joint Pipe and fittings or approved equal.
   c. Mark each length of pipe with the pipe class, casting period, manufacturer's name or trade mark, and year of manufacture.
2. Fittings
   a. Fittings shall be ductile iron compact conforming to ANSI/AWWA C153/A21.53-94. Design and manufacture fittings for a pressure rating of 350 psi. Compact ductile iron fittings for pipe 16-inch or smaller shall conform to ANSI/AWWA C153/A21.53. All fittings will be wrapped with 8 mils polyethylene and sealed with tape.
   b. Fitting joints shall be mechanical joints conforming to ANSI/AWWA C 111/A21.11 or restrained push-on joints such Field Lok, as manufactured by U.S Pipe or approved equal. Restrained joints shall be used for all fittings unless otherwise indicated on the Plans. Pipe connecting to restrained joint fittings shall also have restrained joints as indicated on the Plans and specified in these Specifications. All fittings must be manufactured in the U.S.A.
   c. Fittings shall be marked to conform to the proper ANSI/AWWA standard.

3. Adapters
    a. Adapters from ductile iron pipe to victaulic or flange joint valves or fittings shall be cast iron or ductile iron conforming to ANSI/AWWA C110/A21.10. Design and manufacture adapters for a pressure rating of 150 psi.
    b. Adapter ends connecting to ductile iron pipe shall have plain ends, push-on joints, mechanical joints, or restrained push-on joints. Adapters with plain ends, push-on joints, or mechanical joints may be used where restrained joints are not required. Adapters shall have restrained push-on joints where restrained joint piping is required. Mechanical joints and push-on joints shall conform to ANSI /AWWA C111/A21.1l.
    c. Adapter ends connecting to victaulic or flange joint valves or fittings shall have joints complying with these Specifications for the applicable valves or fittings.
4. Lining and Coating
    a. The inside of all pipe, fittings, and adapters shall be lined with cement mortar lining and asphaltic seal coating conforming to ANSI/AWWA Cl04/A21.4. Coat the outside surfaces of all pipe, fittings, and adapters with asphaltic coating conforming to ANSI/AWWA C151/A21.51 or ANSI/ AWWA C110/A21.10 except for pipe installed above grade and exposed to view shall be factory shop primed and field painted with the following:
    b. Factory shop priming shall be per the manufacturer's recommendations for compatibility with Alkyd Coating finish, one coat Kop-Coat 622 LCF Primer 1.5 mil DFT, O.E., or approved equal.
    c. Field painting shall be of alkyd coating types suitable for protection of ferrous metals against moderately corrosive exterior environments, 2 coats Kop-Coat Rustarmor 500 speed, 1.5 mils DFT per coat min, O.E., or approved equal.
    d. Finish colors shall be as directed by the Engineer.
5. Gaskets
    a. Gasket for mechanical joints and push-on joints shall conform to ANSI/AWWA C111/A21.11.
6. Nuts and Bolts
    a. Nuts and bolts for mechanical joints shall be ASTM A242 Cor-Ten Steel or ASTM A276 Type 304 Stainless Steel tee head bolts and hexagon nuts conforming to ANSI/AWWA C111/A21.11.
    b. Nuts and bolts for restrained push-on joints shall be as recommended by the joint manufacturer.

7. Polyethylene Encasement
   a. Polyethylene encasement for ductile iron pipe, fittings, and adapters shall conform to ANSI/AWWA C105/A21.5. All DIP pipe and fittings are to be encased in 8 mils polyethylene and sealed with tape.

B. Service Pipe and Fittings

1. All service connections will be single connections. All services are to be same size type 'K' copper tubing per City specifications with 12 or 14 guage wire spiral wrapped around tubing and attached to Ford flare fittings. Taps in the pipe will be the same nominal diameter as the service line.

C. Couplings

1. Couplings for connecting ductile iron pipe shall be heavy weight design with heavy rolled steel follower, steel sleeve, and type 304 stainless steel bolts and nuts. Couplings shall be Rockwell No. 411, Romac Style 400 or an approved equal. Couplings shall be provided with stainless steel anchor studs for thrust restraint where noted on the Plans.

2. Transition couplings for connecting alternate materials (PVC to AC or DI, etc.) shall be AC-PVC&DIP Ford Ultra-Flex long sleeve wide range coupler style FC2W-12, as manufactured by Ford Meter Box Company, Inc. or an approved equal.

D. Tie-Lugs and Socket Clamps

1. Tie-Lugs shall be made from ductile iron for use in restraining mechanical joint valves, fittings, and pipes with althread rod. Tie-Lugs shall be made with a tensile strength of 80,000 psi and a yield strength of 60,000 psi. Socket clamps will be used for retaining underground pipe joints from separation. All socket clamps shall consist of two steel half clamps, two bolts and nuts and two cast iron washers. They shall be used with all thread-rod or Tie-Lugs for joint restraint. Tie-Lugs and Socket clamps shall be Trumbull Industries, Inc. or approved equal.

E. Pipe Identification and Location

1. All water main pipes, including fittings, shall be color coded or marked using blue as a predominant color to differentiate drinking water from reclaimed or other water. Underground metal pipe shall have blue stripes applied to the pipe wall. Pipe striped during manufacturing of the pipe shall have continuous stripes that run

parallel to the axis of the pipe, that are located at no greater than 90-degree intervals around the pipe, and that will remain intact during and after installation of the pipe. If tape or paint is used to stripe pipe during installation of the pipe, the tape or paint shall be applied in a continuous line that runs parallel to the axis of the pipe and that is located along the top of the pipe.

2. The cost for the preceding identification and location procedures shall be included in the pipe's installation cost.

2.03 VALVES

A. Resilient Seat Gate Valves, 4 "- 16"

1. Resilient seat gate valves will have mechanical joint ends as manufactured by American Flow Control, Model AFC-2500; U.S. Pipe, Metroseal; Clow Corporation; or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 and C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be bonded or mechanically attached to the gate using stainless steel hardware and will be rated at a working pressure of 200 psi. The interior and exterior of the valve body will be fusion bonded epoxy coated in accordance with A WWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the smallest seat is not acceptable. Valves will be supplied with 2” square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction of flow. If the depth of the valve nut is greater than 48” below grade, or 30” below grade and under the water table, a valve extension system will be required. The extension will have a centering collar and be mechanically attached to the valve operating nut, such as extension manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Project Manager.

B. Tapping Valves

1. Tapping valves shall be resilient seated gate valves having mechanical joint ends and centering ring as manufactured by American Flow Control, Model AFC-2500; U.S. Pipe, Metroseal; Clow Corporation; or an approved equal and must conform to

ANSI/ AWWA C509 & C515. Valve gates, gate rings, and body-seat rings shall be oversized to permit entry and exit of tapping machine cutters. Exposed bolts and nuts shall be stainless steel.

2. Valve end connecting to tapping sleeve shall be flanged for bolting to the sleeve. The flange shall have a tongue conforming to MSS SP-60 to fit a recess in the sleeve. Flange dimensions and drilling shall conform to ANSI B 16. l. Nuts, bolts, and gaskets for flange joints shall conform to ANSI/AWWA C110/A21.10. Nuts and bolts shall be stainless steel. Gaskets shall be 1/8 inch thick, full face, red rubber. Valve end connecting to plain end of water pipe or adapter shall have mechanical joints. Mechanical joints and accessories shall conform to ANSI/AWWA C111/A21.11.

3. Tapping valves 14 inch and smaller shall be installed vertically. Tapping valves 16 inch and larger shall be installed horizontally and shall have bypass valves. Tapping valves installed horizontally shall have rollers and tracks. Valves 16 inch and larger shall have gear operators with enclosed gear cases suitable for buried service. Gear cases shall be extended type or totally enclosed type. Extended type gear cases shall have bolted side plates to cover stem and stuffing box.

C. Curb Stops

1. Buried valves 2-inch and smaller shall be curb stops. All curb stops shall be single service type where possible and one piece brass construction with locking provisions.

2. All curb stops 1" in size will be Ford flare fitting. Curb Stops must have locking wings and a swivel meter nut. Curb stops that are 1-1/2” and 2" will be flare-by-flange with locking wing, as manufactured by Ford Meter Box Company or an approved equal.

D. Corporation Stops

1. Corporation stops shall be of the ball or plug valve type and shall conform to ANSI/AWWA C800. The threads on the corporation shall be “cc” threads. The valve shall be watertight at any pressure up to 500 psi. The waterway shall be no smaller than the nominal size of the valve. Valves shall be designed for installation in mains under pressure using standard tapping machines. All corporation stops used shall be of the same size as the service line connections to the main. Bushings shall be brass or bronze

2. Corporation stops l" will be of brass and Ford flare fitting equal to Model No. F-600, as manufactured by Ford Meter Box Company or an approved equal. Corporation stops 1-1/2" and 2" will be of brass and Ford flare fitting equal to Model No. FB-600, as manufactured by Ford Meter Box Company or an approved equal.

E. Line Stops

1. Where indicated on the Plans, line stops shall be utilized to isolate portions of water mains. Line stops shall be completed while the water system is pressurized. Line stops shall consist of a line stop fitting, stopping plug/valve, blind flange for installation after stop is completed, and 1-inch equalization/purge fitting. Line stop fitting shall be fabricated steel with 12 mil (minimum) epoxy coating. Hardware and accessories shall be 304 stainless steel. Blind flange shall be ductile iron. A concrete encasement shall be poured for pipe support at the point of line stop. The contractor shall be responsible for all additional pipe restraining in the vicinity of the line stop for preventing pipe movement due to any unbalanced forces created by the line stop and subsequent cutting and removal of existing pipe adjacent to any line stop.

2.04 VALVE BOXES

A. Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by Trumbull or Tyler and must have 5-1/4” minimum inside diameter. Cast iron valve boxes will be consist of a circular cast iron top and bottom section. The depth must be determined and the appropriate valve box must be installed. No PVC is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot.

2.05 TAPPING SADDLES

A. Saddles on mains 4 " to l 6" shall be JCM 432 stainless steel with stainless steel hardware. Saddles on mains 24" to 48" in diameter will be fabricated steel with 0-ring seal, fusion bonded, epoxy coated with stainless steel nuts and bolts. The tapping valve must have centering ring and conform to Section 1065-4.8. l Resilient Seat Gate Valves in these Technical Special

Provisions.

B. Outlet flange shall be ANSI B16.l, 125 lb. standard. The straps and bolts shall be stainless steel. The saddle dimensions shall be such that the saddle will not leak when installed on cast iron, ductile iron, or polyvinyl chloride pipe with outside diameter shown in AWWA standards.

C. "Quick" taps will not be permitted.

D. Service saddles must be used for all connections to pipe. Saddles must be bronze as manufactured by Mueller Company, Ford Meter Box Company, Smith-Blair Company, or approved equal. The pipe sizes for these manufacturers are noted below:

1. MUELLER: For pipe sizes 4" to 12", for l" services, the single strap design must be used. For l-1/2" services, the double strap design must be used. Both designs are for the H-16000 series.
2. FORD: For pipe sizes 4" to 12", for l" services, the style 101B single strap design must be used. For 1-1/2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 1" and 1-1/2," services, the style 202B double strap design must be used.
3. SMITH-BLAIR: For pipe sizes 4" to 12", for 1" services, the 321 series single strap design must be used. For pipe sizes 4" and larger, for 1" and 1-1/2" services, the 323 series double strap design must be used.

2.06 FIRE HYDRANTS

A. Fire hydrants shall be manufactured to meet or exceed AWW A C-502, latest revision, and shall comply with Factory Mutual Research Corporation and Underwriters' Laboratories UL 246 Standard. Hydrants must have bronze-to-bronze main seat threading surfaces. The fire hydrant will be traffic type with drain holes plugged at the factory.

B. Allowable fire hydrant models are limited to:

1. American Flow Control B-84-B 6"

2. B-84-B-5 (5-1/4" MVO), American Darling Valve and Manufacturing Company

3. Model No. A-423 Super Centurion 250 (5-1/4" MVO), Mueller Company

4. Clow Medallion 2545 (5-1/4" MVO), Clow Valve Company

C. All hydrants shall be painted at the factory with NSF approved fusion bonded epoxy coating, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow.

D. Hydrants shall be designed for 250 PSI working pressure, and tested to 500 PSI hydrostatic pressure.

E. The main valve closure shall be of the compression type, opening against the pressure and closing with the pressure. Traffic feature to be designed so that the nozzle section can be rotated 360 degrees during field installations, if necessary.

F. The main valve opening shall not be less than 5-114 inches and be designed so that the removal of seat, drain valve mechanism, internal rod and all working parts can be removed through top of hydrant. These parts shall be removable without disturbing the ground line joint or the nozzle section of the hydrant.

G. The operating nut, main stem, coupling, and main valve assembly shall be capable of withstanding an input torque of 200 ft/lb in both the opening and closing directions. There shall be an internal top housing with 0-ring(s) to seal operating threads from the waterway.

H. Hydrant bonnet assembly shall be provided with a grease reservoir and lubrication system that automatically circulates lubricant to all operating threads each time the hydrant is operated.

I. Hydrant shall be a three-way type with one 4 *12* inch pumper nozzle and two 2 *12* inch hose nozzles, each having National Standard Threads.

J. Hydrant shoe, lower barrel and upper barrel shall be cast in ductile iron or cast iron material. All bolts for the internal and external assembly shall be 304 stainless steel.

K. For added protection against corrosion, the hydrant shoe (interior and exterior), upper valve top, and hydrant valve bottom shall have a coating of fusion bonded epoxy.

L. Friction loss shall not exceed 2.0 psig at 1000 GPM through the 4 *12* inch pumper nozzle.

M. Finish grade is to be established and the proper length hydrant installed by the Contractor prior to acceptance by the City.

N. All nozzles shall be a minimum of 18" and a maximum of 24" above finished grade.

O. A mechanical joint hydrant connection shall be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on the plain end branch.

P. The contractor shall not install risers or make repairs to hydrants.

Q. At final inspection, if it is determined that a fire hydrant has been modified, the hydrant shall be removed by the contractor and the proper length hydrant shall be installed by the contractor at the contractor's or developer's expense.

2.07 BLOW-OFF ASSEMBLY

A. A blow-off shall consist of mechanical or flanged joint ductile iron tee, a flanged resilient seat gate valve and the blow off assembly. All joints to be restrained. A concrete thrust collar shall be installed centered on the DIP.

B. Blow off assemblies include 2" brass pipe, threaded fittings, 2" brass ball valve, and plastic meter box (purple for reuse). The plastic meter box is to be installed at grade over the ball valve. The ball valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blow offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Water Standard Details Sheet. A reuse tag will be installed on reuse main blow offs in a reuse meter box.

2.08 METER BOX

A. The meter box will be furnished and installed by the Contractor. For 3/4" to l" services, meter boxes shall be the Carson Industries model 1419 - 12" Standard or approved equal. For l-1/2" to 2" services, meter boxes shall be the Carson Industries model 1419 - 18" Standard or approved equal. Automated Meter Reading (AMR) Neptune meter and Watts Double Check Backflow Assemblies will be furnished by the City and retrofitted on every single family residential site. Commercial and Multi-family Reduced Pressure Backflow Assemblies and their appropriate size and type AMR Neptune Meter will be furnished by the City. All meters and backflow assemblies in asphalt or concrete must be installed in traffic rated meter box.

2.09 WIRE

A. A UF#14 locator wire will be installed on all potable water, reclaimed water, and sewer mains. The wire must be placed on the top of the pipe with at least one wrap around each section of pipe. A run of wire must run

from the main to each hydrant. Each fire hydrant must have one wrap of the wire around the barrel located at final grade. The wire coating color shall be blue (water), green (sewer), and purple (reuse).

PART 3- EXECUTION

3.01 INSPECTION

A. The quality of all materials, the process of manufacture, and the finished products shall be subject to inspection and approval by the Owner. Such inspections may be made at the place of manufacture or on the work after delivery, or at both places; and the products shall be subject to rejection at any time on account of failure to meet any requirements of these specifications, even SR A 1A CI Water Main Pipe Replacement though sample products may have been accepted as satisfactory at the place of manufacture.

B. Prior to being installed, each pipe, fitting, and valve, shall be carefully inspected. Remove damaged or unsuitable products from the job site at once and replace with undamaged and suitable products.

3.02 LAYING WATER MAINS

A. Laying of ductile iron piping shall conform to ANSI/AWWA C600 unless otherwise specified in these Specifications. The Contractor shall provide proper implements, tools, and facilities for the safe and expeditious prosecution of the work.

B. The Contractor shall provide proper implements, tools, and facilities for the safe and expeditious prosecution of the work.

C. Every pipe, fitting, and valve shalt be cleaned of all debris, dirt, and other foreign matter before being laid and shall be kept clean until accepted in the complete work.

D. Lay and maintain pipe to the lines shown on the Plans, except as otherwise specified in this Article. Lay and maintain pipe to the grade shown on the Drawings or to the minimum depth specified in this Article. Install fittings, valves, hydrants, and service connections in the locations shown on the Plans.

E. Where the piping is to be constructed parallel to and close to existing buried utilities, the exact location of which is unknown, adjust the alignment of the piping to least interfere with these utilities, unless otherwise specifically shown or specified.

F. Piping shall be laid with the following separations in accordance with Florida Department of Environmental Protection (FDEP) regulation:

1. Potable water piping shall be laid at least three (3) feet horizontally from any existing or shown storm sewer, stormwater force main, or pipeline conveying unrestricted public access reclaimed water as measured from edge of pipe to edge of pipe.

2. Potable water piping shall be laid at least three (3), and preferably ten (10), feet horizontally from any existing or shown vacuum-type sanitary sewer, as measured from centerline to centerline of the pipes.
3. Potable water piping shall be laid at least six (6), and preferably ten (10), feet horizontally from any existing or shown gravity- or pressure sanitary sewer, wastewater force main, or pip sanitary sewer, wastewater forcemain, or pipeline conveying unrestricted public access reclaimed water as measured from centerline to centerline of the pipes.
4. Reclaimed water piping shall be laid at least five (5) feet horizontally from any existing or shown sanitary sewer, sanitary force main or storm sewer, as measured from edge of pipe to edge of pipe.
5. Potable water piping crossing existing or shown gravity- or vacuum-type sanitary sewer or storm sewer shall be laid to provide a minimum vertical distance of 6-inches, preferably 12-inches, above or at least 12-inches below between the outside of the water pipe and the outside of the sewer or force main pipe.
6. Potable water piping crossing existing or shown pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water shall be laid to provide a minimum vertical distance of 12-inches between the outside of the water pipe and the outside of the sewer or force main pipe.
7. Reclaimed water piping crossing existing or shown sanitary sewers, sanitary force mains, potable water mains, or storm sewer shall be laid to provide a minimum vertical distance of 18-inches between the outside of the water pipe and the outside of the sewer or force main pipe. This separation shall apply whether the water pipe crosses over (preferred) or under the sewer, force main or water pipe.
8. Lay water piping at crossings of sanitary sewers and force mains so a full length of pipe is centered on the crossed sanitary pipe.
9. No water piping shall pass through or contact any part of a sanitary sewer manhole.

G. Lay pressure piping to a depth so that not less than 36" or more than 42" of cover is provided over all pipes unless otherwise noted in the Plans. Cover

shall be measured as the vertical distance from the top of the pipe to the finish grade elevation.

H. Do not lay pipe in water or when the trench or weather conditions are unsuitable for proper installation.

I. Lower pipe, fittings, and valves into the trench by hand, by means of hoists or ropes, or by other suitable tools or equipment which will not damage products, coatings, or linings. Do not drop or dump pipe, fittings, or valves into the trench.

J. Deflection of pressure pipe from a straight line or grade shall not exceed 75% of the manufacturer's recommended limits. If the alignment requires joint deflections in excess of the allowable deflection per joint, furnish and install fittings or a sufficient number of shorter lengths of pipe.

K. Provide thrust restraint at horizontal and vertical deflection fittings and at tees, plugs, tapping sleeves, and tapping saddles.

L. Open excavations shall be satisfactorily protected at all times. At the end of each day's work, the open ends of all pipes shall be protected against the entrance of animals, earth, or debris by bulkheads or stoppers. Bulkheads or stoppers shall be perforated to allow passage of water into the installed pipeline to prevent flotation of pipeline.

M. Prevent foreign matter from entering pipe while it is being installed. Do not place debris, tools, clothing, or other material in the pipe. Close the open ends of pipe by watertight plugs when pipe laying is not in progress. Remove any earth or other material that enters pipe or appurtenances through any open pipe end. Remove earth and other materials at no additional cost.

3.03 PIPE BEDDING, HAUNCHING AND BACKFILLING

A. Pipe bedding, haunching and back.filling shall be as specified under Section 02220.

3.04 JOINTING

A. Ductile Iron Push-on Joints

1. Remove lumps, blisters, and excess bituminous coating from the bell and spigot end of each pipe. Wire brush the outside of each spigot and inside of each bell. Wipe the outside of each spigot and inside of each bell clean of all dirt, oil, grease, and other foreign matter. Wipe the outside of each spigot and inside of each bell dry.

Wipe each gasket clean of all dirt, dust, and other foreign material.

2. Seat a gasket in the bell of the receiving pipe. Thoroughly lubricate the spigot end of the pipe being installed using the lubricant furnished by the pipe manufacturer. Center the spigot end of the pipe being installed in the bell of the receiving pipe. Support the pipe being installed so it is jointed along the centerline of the receiving pipe. Push or pull the pipe being installed home. After jointing, check the gasket to ensure it has not been pushed out of its seat and is uniformly compressed around the pipe.
3. Assemble restrained push-on joints in accordance with the instruction of the joint manufacturer.
4. Deflect piping after jointing, if deflection is required. The amount of deflection shall not exceed 75% of the maximum deflection recommended by the manufacturer.

B. Mechanical Joints

1. Remove Jumps, blisters, and excess bituminous coating from the bell and spigot end of each iron pipe, fitting, and valve. Wire brush the outside of each iron pipe or fitting spigot and inside of each bell. Wipe each bell, spigot, and ring gland clean of all dirt, oil, grease, and other foreign matter. Wipe each bell, spigot, and ring gland dry. Wipe each gasket clean of all dirt, dust, and other foreign matter.
2. Brush each spigot and gasket with soapy water. Slip a ring gland followed by a gasket over the spigot. Center the end of the pipe, fitting, or valve being installed on the end of the receiving pipe, fitting, or valve. Support the pipe, fitting, or valve being installed so it is jointed along the centerline of the receiving pipe, fitting, or valve. Push or pull the pipe, fitting, or valve being installed home. Move the gland into position against the face of the gasket. Loosely assemble the joint bolts and nuts. Evenly tighten the nuts using a torque wrench. Tightening procedures and torque range shall comply with the recommendations of Appendix A, ANSI/AWWA C 111IA2 l.l1.
3. Deflect pipe, fittings, or valves after jointing, if deflection is required. The amount of deflection shall not exceed 75% of the maximum deflection recommended by the manufacturer.

C. Flange Joints

1. Remove antirust coating from machined surfaces. Clean joint surfaces of the pipe, fittings, and valves being joined. Wipe surfaces clean of all dirt, oil, grease, and other foreign matter. Wipe surfaces dry. Wipe each gasket clean of all dirt, dust, and other foreign matter.
2. Align the flange of the pipe, fitting, or valve being installed with the

flange of the receiving pipe, fitting, or valve. Support the pipe, fittings, and valves being joined so the flanges are properly aligned. Lubricate bolts and nuts with graphite and oil mixture prior to installation of bolts and nuts. Install gasket between the flanges. Loosely assemble bolts and nuts. Check gasket to ensure it is in its proper position. Evenly tighten bolts and nuts. Tighten bolts and nuts so the joint will not leak. Do not over torque bolts and nuts.

3.05 SETTING VALVES AND VALVE BOXES

A. Clean the interiors of valves of foreign matter before installation. Tighten stuffing boxes. Inspect valves and hydrants in opened and closed positions to ensure all parts are in working condition.

B. Set valves and valve boxes plumb. Center valve boxes on the valves or valve operators. Locate valves outside the area of roads and streets where feasible. Tamp back.ft II around each valve box to a distance of 4 feet on all sides of the box or to the undisturbed trench face if less than 4 feet.

C. After valve installation and backfilling is completed, center a concrete collar, reinforced as shown on the Plans, on the valve box.

3.06 CONNECTING TO EXISTING MAINS

A. The Contractor shall locate existing mains horizontally and vertically and verify the exact size of existing mains sufficiently in advance of making connections to allow ample time for making changes in the connection location and size if required. Backfill excavation immediately after main is located and measured.

B. Make each wet connection with a tapping valve and tapping sleeve or tapping saddle. Use tapping sleeves unless otherwise shown on the Plans or specified. install and hydrostatically test each tapping valve and tapping sleeve or tapping saddle assembly prior to tapping existing water main. Open and close tapping valves and inspect each tapping valve in both open and closed positions to ensure all parts are in working condition prior to tapping existing water main. Inspect each tapping valve immediately before connecting tapping machine to ensure the tapping valve is open. Install watertight plug on the tapping valve outlet and backfill excavation if existing water main is not tapped within 48 hours after installing tapping valve and tapping sleeve or tapping saddle assembly. Install watertight plug on the tapping valve outlet and backfill excavation if new water main is not connected to tapping valve within 48 hours after making tap in existing water main.

C. Exercise extreme care when performing any work on the existing system to

prevent damage thereto or undue interruption to the existing service. Any damage to the existing system caused by the work shall be immediately repaired (or replaced in kind) by and at the expense of the Contractor and to the satisfaction of the Owner.

D. Should existing cement asbestos piping be encountered, wet taps by means of tapping valves and tapping sleeves or saddle assemblies will not be permitted. Dry taps using sleeves, cutting in tees, fittings, etc., shall be made to connect to existing cement asbestos water mains.

E. The connection work shall include all necessary cutting and fitting of the existing mains, measurement for installation of the new pipe, fittings, wyes, sleeves, tees, crosses, plugs, bends, and reducers as required to make a complete connection.

F. The connection work shall include uncovering and restraining of the existing mains to the restraining lengths indicated in the contract Plans, measurement for installation of the new restraints, fittings, sleeves, and plugs as required to make a complete connection.

G. The Contractor must have at least three (3) years of current pipe tapping or line stopping experience. Prior to tapping or line stopping the existing main, the Contractor shall submit documentation of such experience to the Engineer for approval. Contractor to use approved City of Cocoa tapping contractor.

3.07 RESTRAINING AND SUPPORTS

A. Thrust Blocking

1. Concrete thrust blocks shall be prohibited unless specifically approved by the Engineer. Pipe shall be restrained by restrained joints as shown in the Plans and specified in these Technical Specifications unless otherwise shown in the Water Standard Details.

2. Construct thrust blocks of concrete having a 28 day compressive strength of not less than 2,500 psi. Lubricate fitting surfaces to prevent bonding between fittings and thrust blocks. Construct thrust blocks between fittings to be restrained and undisturbed soil. The area of thrust blocking bearing on undisturbed soil shall not be less than the area determined by the Engineer. Concrete thrust collars shall be used for connections to existing piping as shown on the Plans

B. Restrained Joint Piping

1. Restrained joint piping shall be as specified in these Technical Special Provisions. Distance from fitting to end of restraint shall not be less than that indicated on the Plans. The first section of pipe connected by restrained joint to a fitting shall not be less than 18 feet in length unless a shorter length is required by the piping arrangement shown on the Plans. This section includes existing pipe restraining to cut and plug existing mains.

C. Pipe Supports

1. Furnish and install supports required to hold pipe, fittings, and valves at the lines and grade indicated on the Plans and without strain upon pipe, fittings, or valves. Support exposed piping by suitable saddle stands, concrete piers, or hangers. Locate supports where necessary and not less than 8 feet on center.

3.08 FILLING OF WATER MAINS

1. Newly constructed water mains are to be filled utilizing a 2" temporary jumper as shown on the Water Standard Details of the Plans. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a water meter and a backflow preventer (double check) will be installed. The backflow preventer will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from F.D.E.P. and the Engineer. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Engineer.

3.09 HYDROSTATIC TESTING

A. Hydrostatic Tests shall be performed on all water mains and all services installed. The Contractor shall schedule each test with the Engineer. Each test shall be performed on the day mutually agreed upon and in the presence of the Engineer.

B. The Contractor shall furnish all equipment, temporary piping, pumps, fittings, gauges, and operating personnel necessary to conduct the tests. Water for testing may be obtained from the Owner, however, the Contractor shall pay for all metered water used.

C. Mains may be tested in sections between valves when intermediary valves

are present in the main to be tested. Each section to be tested shall be complete, and thrust blocks shall have been in place for not less than l 0 days prior to performance of the tests. All restrained joint pipe and fittings shall be completely backfilled to produce the required restraint prior to performance of the tests.

D. Before applying the specified test pressure, all air shall be expelled from the pipe. If blow-offs are not available, the Contractor shall make the necessary taps at points of highest elevation before the test is made and plug the taps after the test has been completed.

E. Any exposed pipe, fittings, valves, and joints shall be carefully examined during the test. All joints showing visible leaks shall be repaired. Any cracked or defective pipe, fittings, or valves discovered as a result of the pressure test shall be removed and replaced by the Contractor with sound material, and the test shall be repeated until satisfactory results are at1ained.

F. Testing shall be performed to current A WW A C-600 and A WW A C-605 standards and the following requirements: pressure tests on mains shall be conducted at a static pressure of one hundred fifty pounds per square inch (150 psi) over a period of not less than two (2) hours. Test pressure shall not vary by more than ±5 psi for the duration of the test for the test to be considered successful.

G. Allowable Leakage

1. A leakage test at 150 psi will be performed on all newly installed sections of pipe after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Pipe Size (in.)	Allowable Leakage (Gal/hr)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.06
14	1.16
16	l.32

2. Test Failure:

If the actual leakage exceeds the allowable, locate the leak and correct the work and repeat the test.

3.10 FLUSHING

A. The potable water mains and reclaimed water mains shall be swabbed prior to disinfection. A foam swab shall be flushed through the new mains. The Contractor shall submit for approval, to the Engineer, a swabbing plan for each section of main that has been installed. Flush mains with a flushing velocity of not less than 2.5 feet per second. Following are flows required to provide a flushing velocity of 2.5 feet per second:

Pipe Size	Inside Diameter	Flow at Velocity of 2.5 feet 12er Second
6"	6"	220 gpm
8"	8"	390 gpm
10"	10"	620 gpm
12"	12"	880 gpm
14"	14"	1,200 gpm
16"	16"	1,600 gpm
20"	20"	2,500 gpm
24"	24"	3,600 gpm
30"	30"	5,500 gpm

B. Flush water mains until the water discharged is clear.

3.11 DISINFECTION

A. Disinfection shall meet all requirements of AWWA C651 Latest Edition and of regulatory agency requirements, as applicable, if more stringent than these Specifications. Contractor to pay special attention to special construction notes on the plans and the FDEP Permit for disinfection of pipes.

B. Disinfect all new and repaired water mains in accordance with AWWA Standard C651 prior to placing them into service. Disinfect pipe, fittings and valves with a chlorine solution containing 50 mg/±5 mg/1 of available chlorine. The Contractor shall bacteriologically test the system in locations designated by the regulatory agency having jurisdiction.

C. The chlorinating material shall be chlorine gas, calcium hypochlorite, or sodium hypochlorite. Calcium hypochlorite shall have 70 percent available chlorine by weight. Sodium hypochlorite shall have 5.25 percent to 14.7 percent available chlorine. Placing chlorine tablets in the mains during construction is not an acceptable method of disinfection. The following table lists the quantity of chlorine or hypochlorite required to produce 50 mg/l of available chlorine per 100 feet of pipe.

Pounds				Ounces			Quarts	
Pipe Size	Inside Dia.	Chl. Gas	Cal. Hycl (70%)	Cal. Hycl (70%)	Sod. Hycl (14.7%)	Sod. Hycl (5.25%)	Sod. Hycl (14.7%)	Sod. Hycl (5.25%)
4”	4”	0.027	0.039	0.62	3.0	8.3	00.93	.026
6"	6"	0.061	0.087	1.4	6.7	19.0	0.21	0.58
8"	8"	0.11	0.16	2.5	12.0	33.0	0.37	1.0
10"	10"	0.17	0.24	3.9	19.0	52.0	0.58	1.6
12"	12"	0.24	0.35	5.6	27.0	75.0	0.83	2.3
14"	14"	0.33	0.48	7.6	36.0	100.0	1.1	3.2
16"	16"	0.44	0.62	10.	47.0	130.0	1.5	4.1
18”	18”	0.55	0.79	13.0	60.	170.0	1.9	5.2
20"	20"	0.68	0.97	16.0	74.0	210.0	2.3	6.5
24"	24"	0.98	1.39	22.0	108.0	306.0	3.3	9.4
30"	30"	1.52	2.17	34.0	169.0	473.0	5.1	14.7

D. Disinfection shall be accomplished in accordance with ANSI/AWWA C651. The chlorinating material shall be introduced into water lines and distribution system in a manner approved by the Engineer. All valves in lines being disinfected shall be opened and closed several times during the contact period.

E. The preferred point of application of the disinfecting mixture shall be at the beginning of the pipe line extension or any valved section of it and through a corporation stop inserted by the Contractor. Water from the existing system shall be controlled to flow slowly into the newly laid pipeline during the application of chlorine. Treated water shall remain in the pipeline for not less than 24 hours. After the treated water has been retained for the required time, the chlorine residual at the pipe extremities shall be at least 10 mg/1. Open and close valves several times during the contract period. Following the contact period, flush the mains with potable water until the chlorine residual is 1.0 mg/1 or less. Surface discharge of chlorinated water is not allowed.

F. The Contractor shall have water mains tested for bacteriological quality after disinfection and final flushing. Bacteriological testing shall meet the requirements of the applicable regulatory agency. Disinfection shall be repeated if the piping is not bacteriologically acceptable. The cost of any repeat disinfection shall be borne by the Contractor.

G. If necessary, repeat disinfection, flushing, and testing until bacteriological quality of the water to be delivered through the system is satisfactory to the applicable regulatory agency. The Contractor shall submit a copy of all bacteriological test results to the Owner for record purposes.

H. Bacteriological samples shall be collected and analyzed by a private lab certified by NELAC and licensed by the State of Florida Department of Health. The private lab or sampling company assumes the chain of custody for collecting and transporting the samples to the Jab.

I. The time for disinfection, bacteriological testing, and obtaining approval of the water main for service shall be included in the contract time.

3.12 RELOCATION AND RECONNECTION OF METERS

A. The contractor shall hire a licensed plumber to relocate and reconnect the meters to the customers piping. The contractor's plumber shall supply all labor and materials necessary to accomplish the relocation and reconnection. The meter relocation and reconnection shall be done under the direct supervision of the Engineer and a representative from the City of Cocoa Utilities Department.

3.13 COMPLETION SCHEDULING

A. Complete mains as they are installed. Test, flush, disinfect when applicable, and place in service each part of the main which is complete and can be placed in service without preventing work to continue on uncompleted parts of the new mains. Do not place mains in service until receiving written clearance from FDEP.

3.14 RECORD DRAWINGS

A. The Contractor shall provide complete and accurate certified as-built drawings within ten (10) days of pipeline construction.

****END OF SECTION ****

SECTION 02665

STEEL CASING PIPE/BORING & JACKING

PART 1- PRODUCTS

1.01 SCOPE OF WORK

A. The Contractor shall furnish all labor, tools, materials and incidentals necessary to install steel casing pipe by the boring and jacking or open trench method. The Contractor shall be responsible for conforming with the detailed requirements of this Section and the requirements of the entities having jurisdiction over the bore and jack crossings.

1.02 GENERAL

A. J&B is a method for installing a product (often called a casing) that may serve as a direct conduit for liquids or gases, or as a duct for carrier (pipe, cable, or wire line products). It is a multi-stage process consisting of constructing a temporary horizontal jacking platform and a starting alignment track in an entrance pit at a desired elevation. The product is then jacked by manual control along the starting alignment track with simultaneous excavation of the soil being accomplished by a rotating cutting head in the leading edge of the product's annular space. The ground up soil (spoil) is transported back to the entrance pit by helical wow1d auger flights rotating inside the product. J&B typically provides limited tracking and steering as well as limited support to excavation face.

B. Removal and disposition of excess material varies, is the responsibility of the boring contractor and is not covered under this Specification. However, the cost of removal or final disposition is included in the cost of J&B operation.

C. No J &B conduit may be left open ended without approval of the Engineer to prevent the conduit from acting as a drainage structure.

1.03 RELATED WORK

A. Excavation, Backfilling, and Compaction is included in Section 02220.

1.04 SUBMITTALS

A. Action Submittals:

1. Casing pipe material including the standard to which it is

manufactured, outside diameter, wall thickness, and joint configuration.
2. Details of casing spacers, including recommended spacing.
3. Method to avoid flotation of pipe when grouting annular space.
4. Details of end seals.
5. Joint reinforcement details for jacked concrete pipe.
6. Boring and jacking plan.
7. Means and method of dewatering.

B. Information Submittals:

1. Preconstruction Survey.
2. Physical and chemical properties of steel casing pipe.
3. Jacking and receiving shaft/pit design drawings.
4. Estimated jacking forces.
5. Plans for grade correction.
6. Written logs of daily measurements of horizontal and vertical movement of surface features.
7. Written logs of daily measurements of horizontal and vertical location of casing.
8. Documentation that contractor performing the Work in this section has experience required below. Documentation includes resume of jack and bore site supervisor and at least three references of similar projects completed, including location, length, and size of bore, contact name and contact phone number.

C. Submittals for facilities requiring structural design shall be signed and stamped by a professional civil or structural Engineer currently registered in the State of Florida.

D. Furnish a Bore Path Report to the Engineer within 14 days of the completion of each bore path. Submit the As-Built-Plans to the Engineer within 30 calendar days. No payment will be made for directional boring work until the Bore Path Report has been delivered to the Department. Include the following information in the report:

1. Location of project and financial project number including the Permit Number when assigned.

2. Name of person collecting data, including title, position and company name.

3. Investigation site location (Contract plans station number or reference to a permanent structure within the project right-of-way).

4. Identification of the detection method used.

5. Spoils removal log.

6. As-built placement plans showing roadway plan and profile, cross-section, boring location and subsurface conditions as defined in Bore Path Plans below. Reference tl1e shown plan elevations to a Department Bench Mark when associated with a Department project, otherwise to a USGS grid system and datum or to the top of an existing Department head wall. These plans must be the same scale in black ink on white paper, of the same size and weight and as the Contract plans. Submittal of electronic plans data in lieu of hard copy plans may be approved by the Engineer if compatible with the Department software.

E. Provide the Engineer with a complete set of As-Built-Plans showing all bores (successful and failed) within 30 calendar days of completion of the work. Plans must be dimensionally correct copies of the Contract plans. Include notes on the plans stating the final bore path diameter, facility diameter, drilling fluid composition, composition of any other materials used to fill the annular void between the bore path and the facility or facility placed out of service. If the facility is a casing, note this, as well as the size and type of carrier pipes to be placed within the casing as part of the Contract work. Produce the plans as follows:

1. On the Contract plan view, show the centerline location of each facility, installed or installed and placed out of service to accuracy within I inch at the ends and other points physically observed. They show the remainder of the horizontal alignment of the centerline of each facility installed or installed and placed out of service and note the accuracy with which the installation was monitored.

2. As directed by the Engineer, provide either a profile plan for each bore path, or a cross-section of the roadway at a station specified by the Engineer, or a roadway centerline profile. Also show the ground or pavement surface and the crown elevation of each facility installed, or installed and placed out of service, accurately to within 1 inch at the ends and other points physically observed. Show the remainder of the vertical alignment of each crown facility installed, or installed and placed out of service and note the accuracy with which the installation was monitored. On profile plans for bore paths crossing the roadway, show the contract plans stationing. On the profile plans for bore paths paralleling the roadway show the contract plans stationing. If the profile plan for the bore path is not made on a copy of one of the contract profile or cross-section sheets, use a I 0 to I vertical exaggeration.

3. If a bore path is not completed, show on the plans the failed bore

path along with the name of the utility owner and the final bore path. Note the failed bore path as "Failed Bore Path." Also show the location and length of the cutting head and any product not removed from the bore path.

4. Show the crown elevation, diameter and material type of all utilities encountered and physically observed during the subsoil investigation. For all other obstructions encountered during subsoil investigation or the installation, show the type of material, horizontal and vertical location, top elevation and lowest elevation observed, and note if the obstruction continues below the lowest point observed.

1.05 QUALIFICATIONS

A. Bore and jack operations shall be performed by a qualified Contractor with at least 5 years experience involving work of a similar nature under similar conditions.

PART 2- PRODUCTS

2.01 STEEL CASING PIPES

A. Steel casings shall conform to the requirements of ASTM Designation A 139 (straight seam pipe only) Grade "B" with a minimum yield strength of 35,000 psi. Unless otherwise shown on the Drawings, the casing pipes shall have the minimum nominal diameter and wall thickness as shown on the following table:

Carrier Pipe Nominal Diameter	Casing Outside Diameter	Casting Wall Thickness
4”	14"	.250"
6"	16"	.250"
8"	18"	.250"
10"	20"	.250"
12"	22"	.250"
14"	24"	.250"
16"	28"	.312"
l8"	30"	.312"

B. Field and shop welds of the casing pipes shall conform with the American Welding Society (AWS) standard specifications. Field welds shall be complete penetration, single-bevel groove type joints. Welds shall be airtight and continuous over the entire circumference of the pipe and shall not increase the outside pipe diameter by more than 3/4-inch.

C. All casing pipe to be installed may be inspected at the site of manufacture for compliance with these Specifications by an independent laboratory selected and paid for by the Owner. The manufacture's cooperation shall be required in these inspections.

D. All casing pipe shall be subjected to a careful inspection prior to being installed. If the pipe fails to meet the specifications it shall be removed and replaced with a satisfactory replacement at no additional expense to the Owner.

E. The size of the steel casing must be at least 6 inches larger than the largest outside diameter of the carrier.

F. The casing pipe must be straight seam pipe or seamless pipe.

G. All steel pipe may be bare inside and out, with the manufacturer's recommended minimum nominal wall thicknesses to meet the greater of either installation, loading or carrier requirements.

H. All steel casing pipe must be square cut and have dead-even lengths which are compatible with the J&B equipment.

I. Use steel pipe casings and welds meeting or exceeding the thickness requirements to achieve the service life requirements noted in the FDOT Drainage Manual Chapter 6. For purposes of determining service life, ensure that casings installed under roadways meet or exceed cross drain requirements and casings under driveways meet or exceed side drain pipe requirements. For purposes of material classification, consider steel pipe casing structural plate steel pipe. Ensure that steel pipe casing of insufficient length achieves the required length through fully welded joints. Ensure that joints are air-tight and continuous over the entire circumference of the pipe with a bead equal to or exceeding the minimum of either that required to meet the thickness criteria of the pipe wall for jacking and loading or service life. A qualified welder must perform all welding.

2.02 CARRIER PIPES

A. All carrier pipes within casings shall be restrained joint ductile iron pipe.

B. Carrier pipes shall be supported within the casing pipes so that the pipe bells do not rest directly on the casing. The load of the carrier pipes shall be distributed along the casing by casing spacers. Casing spacers shall be bolt on style split shells made of either T-304 stainless steel or fusion coated steel with a minimum 0.010" thick coating of PVC provided over the entire band. The shell shall be lined with a PVC liner 0.090" thick with 85-90 Durometer hardness. All nuts and bolts shall be high strength, low alloy meeting A WWA C1 1 1. Runners shall be made of a high molecular weight polymer with inherent high abrasion resistance and a low coefficient of friction.

2.03 PIPE COUPLINGS AND JOINTS

A. In order to minimize potential for bore failure, couplings must not project at right angles from the casing diameter by more than ¾ inch.

B. Welds must comply with 2.01 (H) when couplings are not used or when the coupling thickness is less than the casing thickness.

C. When couplings are used the casing joint needs only to be tack welded. Couplings must have a full bead weld such that the thickness, when measured at an angle of 45 degrees to the casing and coupling interface, must be no less than the casing thickness.

PART 3- EXECUTION

3.01 INSTALLATION OF CASING PIPES

A. Care shall be taken in loading, transporting, and unloading to prevent injury to the pipe or coatings. Pipe shall not be dropped. All pipe shall be examined before laying, and no piece shall be installed which is found to be defective. Any damage to the pipe or coatings shall be repaired to the satisfaction of the Owner.

B. Excavation adjacent to the roads shall be performed in a manner to adequately support the roads. Bracing, shoring, sheeting or other supports shall be installed as needed. The Contractor shall install suitable reaction blocks for the jacks as required. Jacking operations shall be continuous and precautions shall be taken to avoid interruptions which might cause the casing to "freeze" in place. Upon completion of jacking operations, the reaction blocks, braces, and all other associated construction materials shall be completely (removed from the site.

C. Dewatering through casings during construction shall not be permitted. All dewatering methods shall be approved by the Owner before construction work begins. In areas where high groundwater creates difficulties in

dewatering, the Contractor may have to seal off boring & jacking pits with sheeting.

D. It shall be the Contractor's responsibility to perform the boring and jacking work in strict conformance with the requirements of the agency in whose right of way or easement the work is being performed. Any special requirements of the agency such as insurance, flagmen, etc., shall be strictly adhered to during the performance of work. The special requirements shall be performed by the Contractor at no additional cost to the Owner.

E. Correct line and grade shall be carefully maintained. Casings for sanitary gravity sewers shall be installed at the specified slope of the carrier pipe with an allowance for casing spacers. Earth within the casing shall not be removed too close to the cutting edge in order to prevent the formation of voids outside the casing. If voids are formed, they shall be satisfactorily filled with grout by pumping.

F. The sections of steel casing shall be field welded in accordance with the applicable portions of AWW A C206 and AWS D7.0 for field welded pipe joints. The Contractor shall wire brush the welded joints and paint with Kop-Coat 622 LCF Primer 1.5 MDFT, or approved equal. After completion of jacking, the Contractor shall clean the interior of the casing of all excess material.

G. The annular space between the carrier pipe and casing shall be filled with clean sand if required by the agency having jurisdiction over the crossing. Masonry plugs are to be installed at each open end of the casing. Plugs shall be suitable for restraining the earth load while allowing drainage of the casing.

H. Provide continuous pressure to the face of the excavation to balance groundwater and earth pressures. Ensure that shafts are of sufficient size to accommodate equipment, the pipe selected and to allow for safe working practices. Provide entry and exit seals at shaft walls to prevent inflows of groundwater, soil, slurry and lubricants. Use thrust blocks designed to distribute loads in a uniform manner so that any deflection of the thrust block is uniform and does not impart excessive loads on the shaft itself or cause the jacking frame to become misaligned. The jacking system must have the capability of pushing the pipe in J&B operations through the ground in a controlled manner and be compatible with the anticipated jacking loads and pipe capacity. Monitor the jacking force applied to the pipe and do not exceed the pipe manufacturers recommendations. Ensure that the pipe lubrication system is functional at all times and sufficient to reduce jacking loads. Use pipe lubrication systems that include a mixing tank, holding tank and pumps to convey lubricant from the holding tank to application points at the rear of the MTBM. Maintain sufficient fluids on

site to avoid loss of lubrication. Power Distribution System must be identified in the plans package or permit provisions as well as any noise constraints. Identify spoil removal capability and method to avoid creating hindrance to other activities which may be necessary in the area.

I. Monitor the pumping rate, pressures, viscosity and density of the boring fluids to ensure adequate removal of soil cuttings and the stability of the borehole. Contain excess drilling fluids, slurry and soil cuttings at entry and exit points in pits until they are recycled or removed from the site. Ensure that all boring fluids are disposed of or recycled in a manner acceptable to the appropriate local, state or federal regulatory agencies. When jacking and boring in suspected contaminated ground, test the boring fluid for contamination and dispose of appropriately. Remove any excess material upon completion of the bore. If it becomes evident that the soil is contaminated, contact the Engineer immediately. Do not continue boring without the Engineer's approval.

J. If an obstruction is encountered which prevents completion of the installation in accordance with the design location and specifications; the pipe may be taken out of service and left in place at the discretion of the Engineer. Immediately fill the product left in place with excavatable flowable fill. Submit a new installation procedure and revised plans to the Engineer for approval before resuming work at another location. If damage is observed to any property, cease all work until a plan of action to minimize further damage and restore damaged property is submitted and approved by the Engineer.

3.02 CONSTRUCTION SITE REQUIREMENTS

A. **The Americans with Disabilities Act:** When and where installations temporarily disrupt pedestrian use of sidewalk areas for periods exceeding two consecutive work days provide an alternate route that meets ADA requirements.

B. **Site Conditions:**

1. Unless approved by the Engineer, sump pits are required to contain auger fluids if vacuum devices are not operated throughout the boring operation.

2. Within 48 hours of completing installation of the boring product, ensure that the work site is cleaned of all excess auger fluids or spoils. Removal and final disposition of excess fluids or spoils is the responsibility of the boring Contractor and ensure that the work site is restored to pre-construction conditions or as identified on the plans.

3. Restore excavated areas in accordance with the specifications and FDOT Design Standards.

4. Provide MOT in accordance with the FDOT Design Standards and the MUTCD when and where the former is silent.

5. Ensure that equipment does not impede visibility of the roadway user without taking the necessary precautions of proper signing and Maintenance of Traffic Operations.

C. Investigate all sites for possibility of having to manage groundwater problems that may occur due to seasonal changes or natural conditions. When ground water level must be controlled, use a system and equipment that is compatible with the properties, characteristics, and behavior of the soils as indicated by the soil investigation report.

D. Take responsibility for restoring any damage caused by heaving, settlement, separation of pavement, escaping boring fluid (fracout) of the J&B operation at no cost to the Department. When required by the Engineer, provide detailed plans which show how damage to any roadway facility will be remedied. These details will become part of the As-Built Plans Package. Remediation Plans must follow the same guidelines for development and presentation of the As-Built Plans. When remediation plans are required, they must be approved by the Engineer before any work proceeds.

PART 4- QUALITY CONTROL

4.01 GENERAL

A. Take control of the operation at all times. Have a representative who is thoroughly knowledgeable of the equipment, boring, and Department procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations. Notify the Engineer 48 hours in advance of starting work. Do not begin the installation until the Engineer is present at the job site and agrees that proper preparations have been made.

4.02 CONSTRUCTION PROCESS AND APPROVAL

For all installations, submit sufficient information to establish the proposed strategy for providing the following:

A. An indication of where the leading edge of the casing is located with respect to line and grade and the intervals for checking line and grade. Indication may be provided by using a water gauge (Dutch level) or electronic

transmitting and receiving devices. Other methods must have prior approval. Maintain a record of the progress at the job site.

B. Equipment of adequate size and capability to install the product and including the equipment manufacturer's information for all power equipment used in the installation.

C. A means for controlling line and grade.

D. A means for centering the cutting head inside the borehole.

E. Provide a means for preventing voids by assuring:

1. The rear of the cutting head from advancing in front of the leading edge of the casing by more than 1/3 times the casing diameter and in stable cohesive conditions not to exceed 8 inches.
2. In unstable conditions, such as granular soil, loose or flowable materials, the cutting head is retracted into the casing a distance that permits a balance between pushing pressure, pipe advancement and soil conditions.
3. Development of and maintaining a log of the volume of spoil material removal relative to the advancement of the casing.

F. Adequate casing lubrication with a bentonite slurry or other approved technique.

G. An adequate band around the leading edge of the casing to provide extra strength in loose unstable materials when the cutting head has been retracted into the casing to reduce skin friction as well as provides a method for the slurry lubricant to coat the outside of the casing.

H. At least 20 feet of full diameter auger at the leading end of the casing. Subsequent auger size may be reduced, but the reduced auger diameter must be at least 75% of the full auger diameter.

I. Water to be injected inside the casing to facilitate spoil removal. The point of injection shall be no closer than 2 feet from the leading edge of the casing.

4.03 TESTING

A. When there is any indication that the installed product has sustained damage and may leak, stop the work, notify the Engineer and investigate damage. The Engineer may require a pressure test and reserves the right to be present during the test. Perform pressure test within 24 hours unless otherwise approved by the Engineer. Furnish a copy of the test results to the Engineer for review and approval. The Engineer shall be allowed up to 72 hours to approve or determine if the product installation is not in compliance with

specifications. The Engineer may require non-compliant installations to be filled with excavatable flowable fill.

B. Testing may consist of one of the following methods but must always meet or exceed FDOT testing requirements. Follow the Product Manufacturer's pressure testing recommendations. Ensure that the product carrier pipes installed without a casing meet the pressure requirements set by the owner. If the owner does not require pressure testing, the Engineer may require at least one test.

i. FDOT requires a water tight pipe and joint configuration where the product is installed beneath any pavement (including sidewalk) and front shoulders. The Engineer will determine when and where water tight joint requirements shall be applied to the ultimate roadway section for future widening. When under the pavement conduct an air pressure test for leaks in the presence of the Engineer at a minimum test pressure of 20 PSI by either of the following methods; standard 24 hour pressure test with a recording chart or, a dragnet type leak detector or equivalent device capable of detecting pressure drops of 1 /2 PSI for a time period recommended by the manufacturer.

ii. When a product is not located under the pavement, the pipe and joint configuration must meet or exceed soil tight joint requirements. The test for a soil tight joint allows up to 0.1 gallon of water leakage at a sustained pressure of 2 PSI. The water tight joint criteria allow no leakage at all for sustained pressures of 5 PSI. Conduct test for joint integrity for one hour.

4.04 PRODUCT LOCATING AND TRACKING

A. Install all facilities such that their location can be readily determined by electronic designation after installation. For nonconductive installations, attach a minimum of two separate and continuous conductive tracking (tone wire) materials, either externally, internally, or integral with the product. Use either a continuous green sheathed solid conductor copper wire line (minimum #12 AWG for external placement or minimum# 14 AWG for internal placement in the conduit/casing) or a coated conductive tape. Ensure that conductors are located on opposite sides when installed externally. Connect any break in the conductor line before construction with an electrical clamp or solder, and coat the connection with a rubber or plastic insulator to maintain the integrity of the connection from corrosion. Clamp connections must be made of brass or copper and of the butt end type with wires secured by compression. Soldered connections must be made by tight spiral winding of each wire around the other with a finished length minimum of 3 inches overlap. Tracking conductors must extend 2 feet

beyond bore termini. Conductors must be tested for continuity. Identify each conductor that passes by removing the last 6 inches of the sheath. No deductions are allowed for failed tracking conductors. Failed conductor ends must be wound into a small coil and left attached for future use.

4.05 AUGERING FLUIDS

A. Use a mixture of bentonite day or other approved stabilizing agent mixed with potable water with a minimum pH of 6.0 to create the drilling fluid for lubrication and soil stabilization. Vary the fluid viscosity to best fit the soil conditions encountered. Do not use other chemicals or polymer surfactant in the drilling fluid without written consent of the Engineer. Certify in writing to the Engineer that any chemicals to be added are environmentally safe and not harmful or corrosive to the facility. Identify the source of water for mixing the drilling fluid. Approvals and permits are required for obtaining water from such sources as streams, rivers, ponds or fire hydrants. Any water source used other than potable water may require a pH Test.

4.06 FAILED BORE PATH

A. If conditions warrant removal of any materials installed in a failed bore path, as determined by the Engineer, it will be at no cost to the Owner. Promptly fill all voids by injecting all taken out of service products that have any annular space with excavatable flowable fill.

**** END OF SECTION****

SECTION 02750

REMOVAL, PLUGGING, AND ABANDONMENT OF EXISTING WATER AND WASTEWATER UTILITIES

PART 1- GENERAL

1.01 DESCRIPTION

A. Work addressed under this Section includes pipe removal and grouting (in filling) sections of existing potable water, reclaimed water, sanitary force main, and gravity sewer pipe for placing out of service. The limits of pipe to be removed or grouted shall be as shown on the Drawings or as directed in the field by the Owner.

1.02 SCOPE OF WORK

A. The Contractor shall furnish all labor, equipment and materials necessary to perform all the work associated with the complete removal and disposal, or placement out of service by injection of cementitious grout, of existing water and wastewater piping, within the limits shown on the Drawings or as directed in the field by the Owner.

B. Unless specifically shown to be salvaged, or at the request of the Owner, all pipe, valves, fittings, and appurtenances associated with the portions of the existing water and wastewater utilities which are to be removed shall be disposed of off-site by the Contractor. Disposal shall be in accordance with all applicable local, State and Federal regulations. The cost of disposal shall be borne by the Contractor.

C. This project contains asbestos cement pipe that is to be abandoned and grouted in place by the contractor. The contractor shall perform asbestos cement pipe removal as described in Part 1.03 of this specification section.

D. The Contractor shall be responsible for removing and disposing of all water and wastewater from utilities to be removed or abandoned under this Contract in accordance with all regulatory agency requirements and federal, state and local laws.

1.03 ASBESTOS PIPE REMOVAL AND DISPOSAL PROCEDURES

A. General - The Contractor will be responsible for permitting, removal and disposal of asbestos-cement (A-C) pipe. The following paragraphs briefly summarize permitting, field procedures and disposal activities related to the A-C pipe. In these discussions, certain local, state and federal laws have been referenced. The Contractor must comply with all applicable local, state

and federal laws/regulations whether or not such laws/regulations are referenced in these specifications.

The Contractor shall provide evidence of experience of proper procedures in removal, handling and disposal of asbestos-cement pipe materials within the past five (5) years. References from at least three completed projects shall be provided at the Preconstruction Conference. If the Contractor proposes to utilize the services of a duly qualified subcontractor for this portion of the work, these same requirements shall be met.

B. Permitting - The Contractor shall apply for and obtain all permits related to removal of the A-C pipe. In accordance with Rule 17-257.30 I of the Florida Department of Environmental Protection (FDEP), the Contractor must submit a "Notice of Asbestos Removal Project" form with a copy to the Engineer. The Contractor will submit the form to FDEP in a timely manner in accordance with the schedule contained in Rule 17-257. The agencies that may require permits for this project are not necessarily limited to the FDEP.

C. Field Procedures - The Contractor is responsible for all procedures, including safety and health procedures, which will be used when handling A-C pipe. The Contractor's handling of A-C pipe shall be in conformance with 29 CFR 1926.58 (OSHA Safety and Health Standards).

Cutting of A-C pipe shall be done in conformance with the recommended practices contained in the American Water Works Association's (AWWA) Manual No. M-16. Cutting methods should be used which minimize the production of airborne dust.

D. Preparation of Transport of Materials - The Contractor will remove the pipe from the ground in whole pieces without fracturing, breaking or otherwise damaging pipe. The A-C pipe shall be carefully loaded onto the transport vehicle without damaging the pipe. The transport vehicle shall totally enclose the A-C pipe so that wind and rain cannot disperse dust from the pipe material. Transport of the A-C pipe shall also meet the requirements of the waste disposal agency.

E. Waste Disposal - As stated in Rule 17-701.520(4), the FDEP indicates that asbestos containing waste materials can be accepted at a permitted Class I, II or III landfill. The regulations also indicate that the waste generator (the Contractor) shall make arrangements with the landfill operator before disposal of the asbestos containing waste materials and inform the operator of the quantity of the waste and the scheduled date the shipment will arrive at the landfill. The Contractor shall provide the Engineer and the City of Cocoa a manifest immediately following disposal.

1.04 RELATED WORK

A. Excavation, trenching, and backfilling are included in Section 02220.

1.05 SUBMITTALS

A. The Contractor shall submit grout mixture data and the results from grout mixture tests to the Owner for approval prior to performing grouting operations.

PART 2- PRODUCTS

2.01 MATERIALS

A. The following is a suggested trial grout mixture for a one (1) cubic yard yield, however, the actual grout mixture to be used shall meet all of the requirements specified below:

Cement:	500 pounds
Fly Ash:	500 pounds
Water:	350 pounds (42 gallons)
Sand:	2,248 pounds
Darex (W.R. Grace):	3 ounces (Air Entrainment Additive or equivalent)
Bentonite:	6 pounds (to be mixed with sufficient water in colloidal mixture and added at the job site)

B. The mixture used for grouting shall be of a creamy consistency. Samples of the grout mixture when set aside in a standard concrete test mold shall show less than one percent of the mixture height of free water on the surface after standing not less than 12 hours.

C. One set of three (3) 3" X 6" sample test cylinders shall be made for each mix preparation. The minimum 28-day strength shall be no less than 1000 psi. The required slump is 5 inches. The maximum allowable slump is 9 inches. Slump should be as low as practical to maintain viscosity, proper "flow", and still retain ability to pump.

PART 3 - EXECUTION

3.01 PIPE REMOVAL

A. Where existing utilities pipes are designated for removal on the Drawings, the Contractor shall remove and dispose of such utilities and all related pipe,

valves, fittings, manholes, and appurtenances with the limits shown. After removal of the facilities all trenches shall be backfilled in accordance with Section 02220. The cost of disposal of the removed materials shall be borne by the Contractor.

B. Utilities shown to be salvaged and/or if salvaging is requested by the owner, shall be carefully disassembled, removed and delivered to the Owner on-site. The Owner may direct the pipes to be reinstalled elsewhere on this project or they may be removed and stockpiled at a location to be determined.

C. The Contractor shall exercise care not to damage utilities to be removed and salvaged.

3.02 IN-PLACE GROUTING OF EXISTING PIPE

A. Where water and wastewater utility pipes are to be abandoned in place they shall be filled with a sand/cement grout as specified herein.

B. Grout shall be injected within the pipe sections indicated on the Drawings. The ends of these sections shall be capped and/or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections shown on the Drawings to prevent the potential for future collapse.

C. The pump used for grouting should be a continuous flow, positive displacement model with a pugmill type mixing vat having a minimum shaft speed of 60 rpm and incorporated as an integral part of the equipment. Alternate equipment may be used subject to the approval of the Owner. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

D. The Contractor shall provide standpipes and/or additional means of visual inspections as required by the Owner to determine if adequate grout material has filled the entire pipe section(s). The Contractor shall make necessary provisions for the Owner's representative to monitor all grouting operations.

E. All pipe to be abandoned shall be capped or plugged with a fitting or material that will prevent soil or other material from entering the pipe. All caps and plugs shall be subject to approval by the Owner.

3.03 MONITORING

A. The Owner's representative may stop the removal and/or grouting operations at any time, if in his judgment, the operation does not comply with these Specifications or if the work is not to his satisfaction.

B. The Owner's representative shall make all measurements of pipe length removed and grout quantity pumped, and maintain records of each day's operations. The quantities recorded by the Owner's representative shall be considered final.

****END OF SECTION****

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1- GENERAL

1.01 SUMMARY

A. This Section covers the work necessary to furnish and place plain and reinforced concrete and do related work necessary to complete work shown or specified.

1.02 REFERENCES

A. Codes, Specifications, and Standards

Codes, specifications, and standards referred to by number or title will form a part of this specification to the extent required by the references thereto. Latest revisions will apply, unless otherwise shown or specified.

B. American Concrete Institute (ACI) Standards

ACI 211.1	Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete
ACI 304	Guide for Measuring, Mixing, Transporting, and Placing Concrete
ACI 305	Hot Weather Concreting
ACI 306	Cold Weather Concreting
ACI 308	Standard Practice for Curing Concrete
ACI 347	Recommended Practice for Concrete Formwork
ACI SP-66	ACI Detailing Manual

C. American Society for Testing and Materials (ASTM) Standards

ASTM A185	Specification for Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement
ASTM A615	Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement

ASTM C31	Methods of Making and Curing Concrete Test Specimens in the Field
ASTM C33	Specification for Concrete Aggregates
ASTM C94	Specification for Ready-Mixed Concrete
ASTM C143	Test Method for Slump of Portland Cement Concrete
ASTM Cl50	Specification for Portland Cement
ASTM CI73	Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C260	Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C494	Specification for Chemical Admixtures for Concrete
ASTM C6l8	Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
ASTM C881	Specification for Epoxy-Resin-Base Bonding Systems for Concrete
ASTM D994	Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)
ASTM D1190	Specification for Concrete Joint Sealer, Hot Poured Elastic Type
ASTM D1752	Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction

1.03 SUBMITTALS

A. Submittals will be as specified in the General Conditions and Section 01340, Shop Drawings, Product Data and Samples.

B. Submit the following:

1. Manufacturer's Certificate of Compliance certifying compliance with the applicable specifications and standards.
2. Certified copies of test reports of concrete mixes required by the applicable standards.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. The Contractor will be responsible for the delivery, storage, and handling of products.

B. Promptly remove damaged or unsuitable products from the job site. Replace damaged products with undamaged products. Replace unsuitable products with suitable products.

1.05 JOB CONDITIONS

A. Follow methods outlined in ACI 306 if concrete is to be placed when the atmospheric temperature is expected to be less than 40 degrees F.

B. Calcium chloride will not be considered for approval as an accelerating admixture during cold weather construction.

C. Follow methods outlined in ACI 305 if concrete is to be placed when the atmospheric temperature is expected to exceed 90 degrees F.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Cement

Cement will be Portland cement con fanning to ASTM C 150. Cement will be Type l for normal use, Type 1A where air-entrainment is desired, or Type III or Type IIIA where high early strength is desired and authorized by the Engineer.

B. Aggregate

Fine and coarse aggregates will conform to ASTM C33. Aggregate will be crushed limestone with a maximum size of 3/4 inch.

C. Water

Water will be potable, clean, and free from injurious amounts of oils, acids, alkalis, organic materials, or other substances that may be deleterious to concrete or steel. A maximum of 500 mg/l of chloride ion may be present

in the water.

D. Admixtures

1. Air-entraining admixtures will conform to ASTM C260.
2. Water-reducing and retarding admixtures will conform to ASTM C494, Type A or Type D, except that they will contain no chlorides, will be non-toxic after 30 days, and will be compatible with the air-entraining admixtures. The amount of admixture added to the concrete will be in accordance with the manufacturer's requirements. Furnish a compliance statement that the admixture used satisfies all requirements of this specification.

E. Reinforcement

1. Reinforcing steel will conform to ASTM A615, Grade 60.
2. Welded wire fabric or wire mesh will conform to ASTM Al85.

F. Joint Filler

1. Preformed expansion joint filler will be asphalt filler for unsealed expansion or isolation joints in sidewalks, driveways and elsewhere as indicated on the Drawings. Filler will conform to ASTM D994 and will be sealtight asphalt expansion joint filler, as manufactured by W. R. Meadows, Inc., Elgin, Illinois, or Engineer approved equal.

G. Curing Compounds

1. Curing compounds will conform to ASTM C309, Type I.

2.02 CONCRETE

A. General

1. Concrete will be Class A or B as specified in this Article. All concrete will be Class A, unless specifically excepted.
2. The slump of all concrete will be not more than 4 inches or less than l inch unless specifically excepted by the Owner.
3. The air content by volume of all concrete will be from 3% to 6%.
4. Class A concrete will contain a water-reducing and retarding admixture, unless specifically excepted. Use of a water-reducing and retarding admixture in Class B concrete is optional.
5. Do not exceed the water-cement ratio of the design mix which includes all water added.
6. The water reducing and retarding admixture will be in accordance with the manufacturer's requirements.

B. Class A Concrete

1. Class A concrete will be structural concrete with a 28-day compressive strength of 4,000 psi.
2. Proportion Class A concrete in accordance with ACI 211.1.

C. Class B Concrete

1. Class B concrete will be plain concrete with a 28-day compressive strength of 2,000 psi.
2. Proportion Class B concrete in accordance with ACI 211.l.

PART 3 - EXECUTION

3.01 SUBGRADE PREPARATION

A. Subgrade will be free of sawdust, debris, water, extraneous oil, mortar, or any other substances that may be deleterious to the concrete.

B. Earth surfaces will be firm, damp, and unyielding.

C. Do not place Class A concrete on mud, dried earth, or uncompacted fill. Mud mats of Class B concrete will be permitted upon written approval of the Owner.

D. When Class A concrete is to be placed on highly pervious materials which might allow flowing groundwater to damage fresh concrete, the contact surface will be covered with a layer of asphalt-impregnated building paper or polyvinyl sheeting prior to placement of the concrete.

3.02 FORM WORK

A. All form work will be in accordance with recommended practices contained in ACT 347.

B. Forms will be of wood, plywood, steel) or other approved materials and will be mortar-tight.

C. Construct forms and associated false work so finished concrete conforms to the dimensions and contours shown on the Drawings.

D. Form surfaces will be smooth and free from holes, dents, sags, or other irregularities.

E. Coat forms with a non-staining oil before setting them in place.

F. Metal ties or anchorages within the forms will be equipped with cones, she-bolts, or other devices that permit their removal to a depth of at least 1 inch without injury to the concrete.

G. Remove forms in a manner and at such time to ensure complete safety of the structure. Do not remove supporting forms or shoring until sufficient strength has been developed in the concrete to support weight and load.

3.03 REINFORCING STEEL

A. Reinforcement will be free from excessive amounts of scale, rust, form oil, or any other coating that will reduce bond.

B. Cut and bend reinforcement in accordance with ACI SP-66.

C. Bar supports will conform to ACI SP-66.

D. Any dowel, lap or splice required will be the minimum allowable Class C tension splice according to ACI 318, based on Grade 60 steel reinforcing and 4,000 psi 28- day concrete.

E. A mat of steel will be considered as two layers of reinforcing bars forming a grid.

F. When one mat of steel is to be placed in a wall or slab, place the mat in the center of the section w1less specifically excepted. When two mats of steel are to be placed in a wall or slab, place one mat in each face of the section utilizing the minimum allowable clear distance per ACI 318, unless specifically excepted.

3.04 CONCRETE

A. General

Measure and mix concrete in accordance with ACI 304.

B. Class A Concrete

1. No measurable amount of water will pass through structural concrete when a head of water of equal to 12 inches of depth per inch of concrete is applied.
2. Use one brand of cement only in concrete which will have exposed surfaces.

C. Class B Concrete

Construct thrust blocks of Class B concrete. Construct mud mats of Class B concrete, unless otherwise approved.

D. Ready-Mixed Concrete

1. Mix, deliver, and place ready-mixed concrete in accordance with ASTM C94.
2. Discharge concrete from a truck within l -1/2 hours after water has been added to the mix in the truck.
3. The delivery ticket will contain the cubic yards in the load, the percent of air, the total number of pounds of cement in the load, and the total gallons of water in the load. Copy of delivery ticket will be given to the Owner's representative.
4. Water may be added upon arrival at the job site if the water-cement ratio after the addition of the water does not exceed the water-cement ratio of the applicable design mix. When water is added at the job site, mix for a minimum of 1½ minutes for each cubic yard remaining in the truck before discharging.

E. Site-Mixed Concrete

1. Thoroughly mix site-mixed concrete in an approved type batch mixer having a capacity of not less than 112 cubic yard. The volume of the mixed batch will not exceed the manufacturer's rated capacity of the mixer.
2. The mixing time for each batch, after addition of water to cement and aggregate, will not be less than 1-1/2 minutes for each I cubic yard of materials. Operate the mixing drum at the speed for which it was designed, provided the speed is more than 14 rpm and less than 20 rpm.

3.05 PLACING CONCRETE

A. Place concrete in accordance with ACI 304. Provide chutes, drop pipes, and other placing equipment properly designed and appropriate for the intended use to prevent segregation of coarse aggregate.

B. Remove construction debris and extraneous mat1er from within the forms.

C. Remove temporary struts, stays, bracing, and blocks serving to hold the forms in correct shape and alignment until concrete is placed.

D. Place concrete on clean, damp surfaces, free from running or standing water.

E. Deposit concrete in approximately horizontal layers, not to exceed 18 inches.

F. Consolidate concrete by means of mechanical vibrating. Insert and remove vibrators vertically at regular intervals to ensure uniform consolidation. Do not use vibrators to transport concrete inside the forms. Internal vibrators will maintain a speed of not less than 7,000 impulses per minute when in operation. At least one standby vibrator will be on hand at the location of concrete placement at all times during placing.

3.06 CURING

A. Prevent concrete from drying for a period of 7 days after it is placed.

B. Curing may be accomplished by any of the approved methods as listed in ACI 308.

3.07 FINISHING

A. All concrete surfaces will be true and even, and will be free from open or rough spaces, depressions, or projections.

3.08 TESTING

A. The Owner will pay for the services of an independent testing laboratory to sample and test concrete. The Contractor will cooperate with the testing laboratory. Also, the Contractor will give the Owner 48 hours of notice prior to a scheduled concrete pour in order to allow the Owner to schedule the work of the testing laboratory.

****END OF SECTION****

APPENDIX

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMITS

FLORIDA DEPARTMENT OF
Environmental Protection

CENTRAL DISTRICT OFFICE
3319 MAGUIRE BLVD., SUITE 232
ORLANDO, FLORIDA 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

Notification of Acceptance of Use of a General Permit

Permittee:
John A. Walsh, Utilities Director
City of Cocoa
351 Shearer Blvd.
Cocoa, FL 32922
jwalsh@cocoafl.org

Permit Number: 0124889-1166 DSGP
Issue date: March 23, 2023
Expiration Date: March 22, 2028
County: Brevard
Project Name: Osage and Angelica Street Utilities
Water Supplier: City of Cocoa
PWS ID: 3050223
PWS Type: Community

Dear Mr. Walsh:

On March 16, 2022, the Florida Department of Environmental Protection received a "*Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs*" [DEP Form No. 62-555.900(7)], under the provisions of Rule 62-4.530 and Chapter 62-555, Florida Administrative Code (F.A.C.). The proposed project includes the construction 3,252-LF of 14-inch HDPE direct bore water main, 50-LF of 12-inch PVC water main, and 50 LF of 8-inch water main for a water line extension and utility improvements along Osage Street. The project is located along Osage Street and Angelica Street to the intersection of Osage Street and Cherokee Boulevard, Brevard County, Florida.

Based upon the submitted Notice and accompanying documentation, this correspondence is being sent to advise that the Department does not object to the use of such general permit at this time. Please be advised that the permittee is required to abide by Rule 62-555.405, F.A.C., all applicable rules in Chapters 62-4, 62-550, 62-555, F.A.C., and the General Conditions for All General Drinking Water Permits (found in 62-4.540, F.A.C.).

The permittee shall comply with all sampling requirements specific to this project. These requirements are attached for review and implementation.

Pursuant to Rule 62-555.345, F.A.C., the permittee shall submit a certification of construction completion [DEP Form No. 62-555.900(9)] to the Department and obtain approval, or clearance, from the Department before placing any water main extension constructed under this general permit into operation for any purpose other than disinfection or testing for leaks.

Within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service in total by the Department, both the permittee and the proposed permittee shall sign and submit an application for transfer of the permit using Form 62-

555.900(8), F.A.C., with the appropriate fee. The permitted construction is not authorized past the 30-day period unless the permit has been transferred.

This permit will expire five years from the date of issuance. If the project has been started and not completed by that time, a new permit must be obtained before the expiration date in order to continue work on the project, per Rule 62-4.030, F.A.C.

Sincerely,



Daniel Shideler
Engineering Specialist IV
Florida Department of Environmental Protection

cc: Juan J. Gonzales, P.E., DRMP, Inc. jgonzalez@drmp.com
Daniel Shideler, FDEP

CLEARANCE REQUIREMENTS

Requirements for clearance upon completion of projects are as follows:

1) **Clearance Form**
Submission of a fully completed Department of Environmental Protection (DEP) Form 62-555.900(9) *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components into Operation* and a copy of this general permit notification.

2) **Record Drawings, if deviations were made**
Submission of the portion of record drawings showing deviations from the DEP construction permit, including preliminary design report or drawings and specifications, if there are any deviations from said permit (Note that it is necessary to submit a copy of only the portion of record drawings showing deviations and not a complete set of record drawings.).

3) **Bacteriological Results**
Copies of satisfactory bacteriological analysis (a.k.a. Main Clearance), taken within sixty (60) days of completion of construction, from locations within the distribution system or water main extension to be cleared, in accordance with Rules 62-555.315(6), 62-555.330, and 62-555.340, F.A.C. and American Water Works Association (AWWA) Standard C 651-92, as follows:

- The proposed main at all points of connection to the existing main
- At all terminal ends of the proposed water mains.
- On straight run of pipes between two isolation valves. The maximum interval between two sampling locations shall be 1,200 ft. Per AWWA C651, no hydrants shall be used for sampling.
- Beginning and end of lines for each segment to be partially completed

Each location shall be sampled on two consecutive days, with sample points and chlorine residual readings clearly indicated on the report. **A sketch or description of all bacteriological sampling locations must also be provided.**

Please submit the entire clearance document package in electronic format to DEP_CD@dep.state.fl.us. If the file is very large, you may post it to the Water Electronic Submittal folder on the Central District's ftp site at:
ftp://ftp.dep.state.fl.us/pub/incoming/Central_District/Water%20Electronic%20Applications.

After posting the document, send an e-mail to DEP_CD@dep.state.fl.us, alerting the Department that it has been posted.

Any submitted drawings (should be sized 11" x 17") and the engineer of record's signed seal and dates on the required document must be legible for acceptance.
Forms: http://www.dep.state.fl.us/water/drinkingwater/forms.htm

For further clarification contact: Daniel Shideler,
Suite 232
3319 Maguire Boulevard,
Orlando, Florida 32803-3767
(407) 897-4133

FLORIDA DEPARTMENT OF Environmental Protection

Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

In the Matter of an
Application for Permit by:

PERMITTEE:
John "Jack" WalshPE
Utilities Director
City of Cocoa Utilities Department
351 Shearer Blvd.
Cocoa, Florida, 32922
jwalsh@cocoafl.org; kennis@cocoafl.org

PERMIT NUMBER: 028837-024-DWC/CM
ISSUANCE DATE: March 24, 2023
EXPIRATION DATE: March 23, 2028
COUNTY: Brevard
PROJECT NAME: Osage and Angelica Street Utilities
WASTEWATER TREATMENT: Cocoa/Jerry Sellers WRF
FACILITY ID: FL0021521

NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 0028837-024-DWC/CM to construct a domestic wastewater collection/transmission system, issued pursuant to Section 403.087(1), Florida Statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until a subsequent order of the Department. Because the administrative hearing process is designed to formulate final agency action, the subsequent order may modify or take a different position than this action.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency’s proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first.

You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver may not apply to persons who have not received a clear point of entry.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department’s action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at Agency_Clerk@dep.state.fl.us, before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

William Craig

William Craig
Engineering Specialist
Permitting and Waste Cleanup Program

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

Copies furnished to:
Juan Gonzalez, PE, DRMP, Inc., Jgonzalez@drmp.com
Angie O'Brien, DRMP, aobrien@drmp.com
FDEP: Charles LeGros, Allison Chancy Cothran, William Craig

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Zachary Evan Dillon

Clerk

March 24, 2023
Date

FLORIDA DEPARTMENT OF
Environmental Protection

Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

STATE OF FLORIDA
DOMESTIC WASTEWATER COLLECTION/TRANSMISSION INDIVIDUAL PERMIT

PERMITTEE:
John "Jack" WalshPE
Utilities Director
City of Cocoa Utilities Department
351 Shearer Blvd.
Cocoa, Florida, 32922
jwalsh@cocoafl.org; kennis@cocoafl.org

PERMIT NUMBER: 028837-024-DWC/CM
ISSUANCE DATE: March 24, 2023
EXPIRATION DATE: March 23, 2028
COUNTY: Brevard
PROJECT NAME: Osage and Angelica Street Utilities
WASTEWATER TREATMENT: Cocoa/Jerry Sellers WRF
FACILITY ID: FL0021521

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4 and 62-604, Florida Administrative Code (F.A.C.).

The above-named permittee is hereby authorized to construct the facilities shown on the application and other documents on file with the Department and made a part hereof and specifically described as follows:

DESCRIPTION OF PROJECT:

Construction of a sewage collection/transmission system serving a force main extension, generating no new flows.

The sewage collection/transmission system shall consist of: A) 535 linear feet of 8-inch PVC force main, B) 5,045 linear feet of 10-inch HDPE force main, and C) associated appurtenances.

LOCATION OF PROJECT:

This project is located along Osage St. and Angelica St. between Friday Rd. and Grissom Pkwy, at GPS Coordinates 28°24'43.1"N 80°47'49.9"W, Cocoa, Brevard County, Florida, 32922.

IN ACCORDANCE WITH: The limitations, requirements and other conditions set forth in pages 1 through 3 of this permit.

PROJECT NAME: Osage and Angelica Street Utilities
PERMIT NUMBER: 0028837-024-DWC/CM

PERMIT CONDITIONS:

1. This permit is subject to the general conditions of Rule 62-4.160, F.A.C., as applicable. This rule is available at the Department's Internet site at: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-4 [62-4.160]

2. Upon completion of construction of the collection/transmission system project, and before placing the facilities into operation for any purpose other than testing for leaks or testing equipment operation, the permittee shall obtain clearance from the Department. This clearance may be obtained expeditiously using the Department's Business Portal at http://www.fldepportal.com/go/ (via "Submit" then "Registration/Notification" and "Submit Notifications to FDEP". The submission is for "Division of Water Resource Management Domestic/Industrial Wastewater" and the submittal type is "Request for Approval to Place a Domestic Wastewater Collection/Transmission System into Operation").

For further clarification contact:
William Craig, (407) 897-4329
3319 Maguire Blvd, Suite 232
Orlando, Florida 32803-3767

3. New or modified collection/transmission facilities can be placed into operation 3 days after Form 62-604.300(3)(b), (adopted and incorporated by reference in paragraph 62-604.300(3)(b), F.A.C., effective October 4, 2021, http://www.flrules.org/Gateway/reference.asp?No=Ref-13560), is submitted and received by the Department or delegated local program, provided no substantial deviations are noted on Form 62-604.300(3)(b) and the Department or delegated local program does not notify the permittee of public health or environmental concerns regarding placing the facilities into operation.

   When substantial deviations are noted on Form 62-604.300(3)(b), (adopted and incorporated by reference in paragraph 62-604.300(3)(b), F.A.C., effective October 4, 2021), http://www.flrules.org/Gateway/reference.asp?No=Ref-13560), new or modified collection/transmission facilities can be placed into operation 10 days after Form 62-604.300(3)(b) is submitted unless the Department or delegated local program notifies the permittee of public health or environmental concerns regarding placing the facilities into operation. [62-604.700(3) and (4)]

4. Permit revisions shall only be made in accordance with Rule 62-4.050(4)(s), F.A.C. Request for revisions shall be made to the Department in writing and shall include the appropriate fee. Revisions not covered under Rule 62-4.050(4)(s), F.A.C., shall require a new permit. [62-604.600(8)]

5. Abnormal events shall be reported to the Department's Central District Office in accordance with Rule 62-604.550, F.A.C. For unauthorized spills of wastewater in excess of 1000 gallons per incident, or where information indicates that public health or the environment may be endangered, oral reports shall be provided to the STATE WATCH OFFICE TOLL FREE NUMBER, (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee or other designee becomes aware of the circumstances. Unauthorized releases or spills less than 1000 gallons per incident are to be reported orally to the Department's Central District Office within 24 hours from the time the permittee, or other designee becomes aware of the circumstances. The written submission may be provided electronically using the Department's Business Portal at http://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification"). [62-604.550]

6. This permit is for the "Dryline" collection/transmission mains only. No wet connections shall be made without the separate prior written approval and flow allocations by DEP and the Utility.

Executed in Orlando, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

William Craig

_____

William Craig
Engineering Specialist
Permitting and Waste Cleanup Program

DATE: March 24, 2023

BREVARD COUNTY RIGHT-OF-WAY PERMIT

BOARD OF COUNTY COMMISSIONERS

Phone: (321) 637-5437
Inspections:(321) 633-2079

PERMIT #: 23RW00265
ISSUED: 07/19/2023
EXPIRES: 07/19/2024

BREVARD COUNTY PUBLIC WORKS RIGHT-OF-WAY AND EASEMENT PERMIT
PERMIT TO BE POSTED AT JOB

SITE ADDRESS:OSAGE STREET AND ANGELICA STREET UTILITY IMPROVEMENTS

SUBDIVISION NAME: CANAVERAL GROVES SUBD
DESCRIPTION OF WORK: CONSTRUCTION OF A WATER MAIN, SEWER MAIN AND REUSE MAIN EXTENSIONS WITHIN THE ROW OSAGE STREET AND ANGELICA STREET IN COCOA. CONSTRUCTION CONSISTS OF CONNECTION TO WATER, SANITARY SEWER, AND REUSE MAINS BEING CONSTRUCTED AS PART OF THE PREVIOUSLY PERMITTED FRIDAY ROAD PROJECT.

OWNER: CITY OF COCOA / JOHN A. WALSH, P.E.
PHONE:(321)433-8700
OWNER ADDRESS: 351 SHEARER BOULEVARD
COCOA FL 32922

APPLICANT/CONTRACTOR: DRMP, INC./JUAN J. GONZALEZ, P.E./SCOTT NICKLE, PROJECT MANAGER
PHONE:(321)453-0010
ADDRESS: 100 PARNELL STREET
MERRITT ISLAND FL 32953

BY ACCEPTANCE/ISSUANCE OF THIS PERMIT, THE PERMITEE AGREES TO THE TERMS AND CONDITIONS OF THIS PERMIT. PERMITEE RESPONSIBLE FOR DAMAGES TO ROAD/EASEMENTS DURING CONSTRUCTION.

OPEN PITS MUST BE COMPLETED WITHIN 10 DAYS OF EXCAVATION. NO EXCAVATION WITHIN 4 FT OF EDGE OF PAVEMENT.

RESTORE AND SOD ALL AREAS DISTURBED BY CONSTRUCTION IN COUNTY RIGHT-OF-WAY OR EASEMENT.

MAINTAIN PROPER MAINTENANCE OF TRAFFIC FOR THE ROADWAY AND SIDEWALKS PER FDOT DESIGN STANDARD, LATEST EDITION.

PERMIT MUST BE ON-SITE FOR ALL INSPECTIONS. IF PERMIT IS UNAVAILABLE ON-SITE, THE SCHEDULED INSPECTION WILL NOT BE PERFORMED AND YOU WILL BE ASSESSED A $75.00 REINSPECTION FEE WHICH WILL BE DUE PRIOR TO RESCHEDULING.

RIGHT-OF-WAY INSPECTIONS OFFICE MUST BE NOTIFIED 48 HOURS PRIOR TO START DATE ON UTILITY CONSTRUCTION AND COMMERCIAL PROJECTS. FOR COMMERCIAL SITE AND RIGHT-OF-WAY INSPECTIONS, PLEASE CALL (321) 633-2079.

RESIDENTIAL PRE-POUR AND FINAL INSPECTIONS MUST BE CALLED IN 24 HOURS IN ADVANCE AND BY 4:30 PM TO BE INSPECTED THE FOLLOWING BUSINESS DAY. PHONE (321) 633-2079.

APPLICANT MUST COMPLY WITH F.S.556 FOR UTILITY LOCATION INFORMATION.

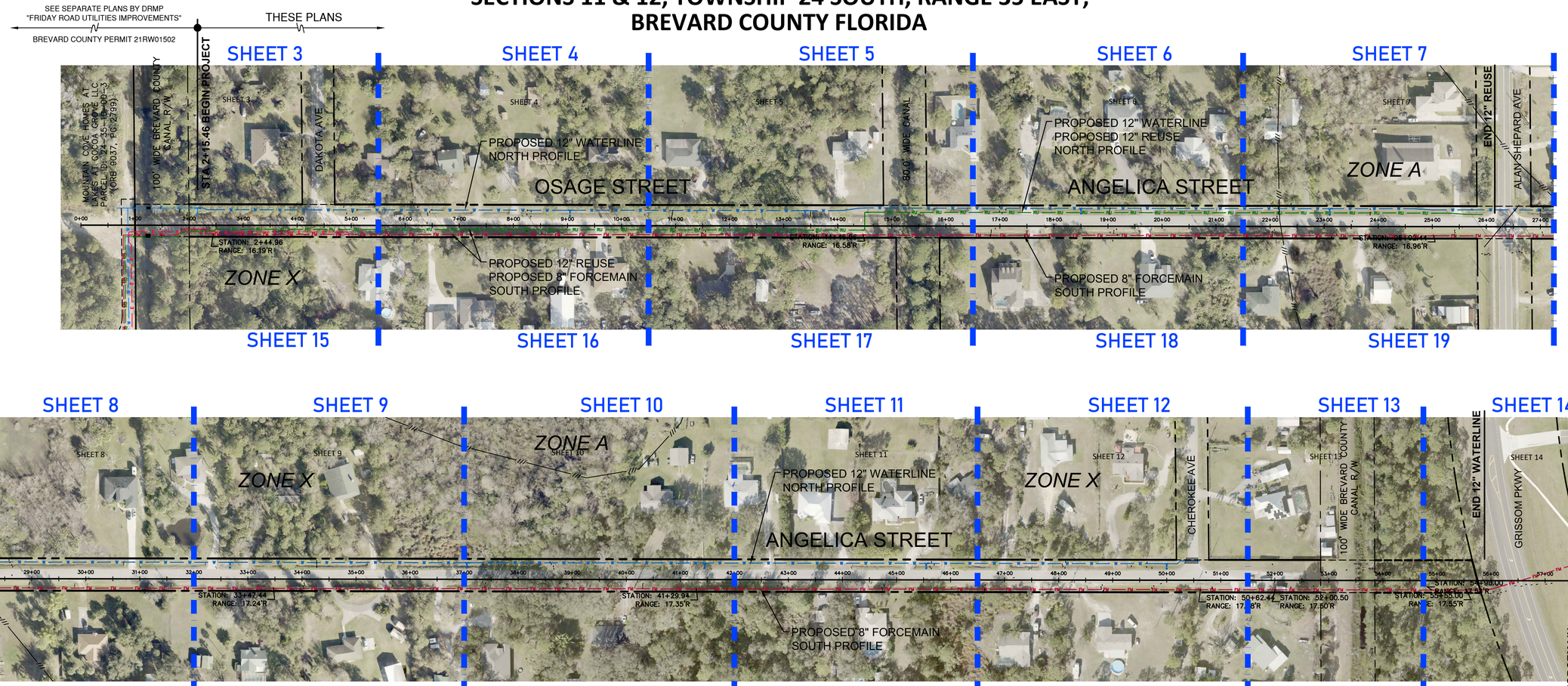
NORMAL WORKING HOURS ARE FROM 7:00 AM TO 6:00 PM MONDAY-FRIDAY. AFTER HOURS INSPECTION RATES WILL BE ACCESSED AT $100.00 PER HOUR, WITH A MINIMUM OF 4 HRS. ALL AFTER HOURS INSPECTION REQUESTS MUST BE SUBMITTED IN WRITING TO BREVARD COUNTY PUBLIC WORKS ENGINEERING A MINIMUM OF 72 HRS PRIOR TO START OF AFTER HOURS WORK.

PERMIT CONDITIONS:

90% CONSTRUCTION PLANS PREPARED FOR:

OSAGE/ANGELICA ROAD UTILITIES IMPROVEMENTS

SECTIONS 11 & 12, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY FLORIDA



NORTH

MASTER SITE PLAN
SCALE: 1" = 100'

UTILITY COMPANY CONTACTS

CITY OF COCOA UTILITIES DEPT.
351 SHEARER BLVD
COCOA, FL 32922
PHONE: (321) 433-8710

BREVARD COUNTY ROAD & BRIDGE
555 CONE ROAD
MERRITT ISLAND, FL 32952
PHONE: (321) 455-1389

SUNSHINE 811
www.sunshine811.com
(800) 432-4770

FLORIDA POWER & LIGHT
270 PIONEER ROAD
MERRITT ISLAND, FL 32952
PHONE: (321) 455-6125

FLORIDA CITY GAS
OPERATIONS DEPT.
4180 S. U.S. HIGHWAY No.1
ROCKLEDGE, FL 32955
PHONE: (321) 638-3424

SPECTRUM
720 MAGNOLIA AVENUE
MELBOURNE, FL 32935
PHONE: (321) 757-6395

AT&T
712 FLORIDA AVE.
COCOA, FL 32922

GENERAL STATEMENT

This plan is for the proposed construction of approximately:
WATERLINE: 60 LF 8" PVC, 1720 LF 12" PVC, 30 LF 12" DIP, and 3110 LF 14" HDPE (direct bore);
REUSE: 300 LF 12" PVC & 2140 LF 14" HDPE (direct bore);
FORCEMAIN: 920 LF 8" PVC & 4660 LF 10" HDPE (direct bore)
to provide improved utility service to existing and future residential homes. Utilities to be located within Osage Street and Angelica Street rights-of-way, via Direct Bore and standard Open Trench construction. All proposed water lines, reuse lines and force mains will be owned by City of Cocoa Utilities Department.

PROJECT CONTACTS

ENGINEER:
DRMP, INC.
100 PARNELL STREET
MERRITT ISLAND, FL 32953
PHONE: (321) 453-0010
CONTACT:
JUAN GONZALEZ, PE, ENGINEER OF RECORD

SURVEYOR:
DRMP, INC.
100 PARNELL STREET
MERRITT ISLAND, FL 32953
PHONE: (321) 453-0010
CONTACT: JOSEPH BARRY CABANISS, PLS

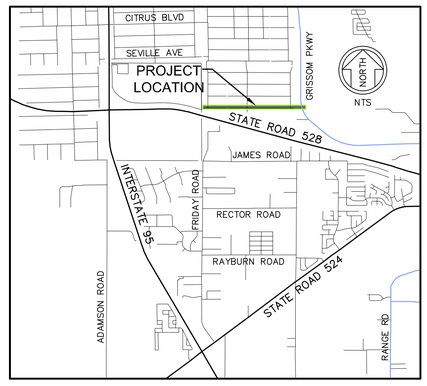
OWNER/DEVELOPER:
CITY OF COCOA UTILITIES DEPT.
351 SHEARER BLVD
COCOA, FL 32922
PHONE:(321) 433-8700
CONTACT: JOHN "JACK" WALSH, PE, DIRECTOR

SHEET INDEX

SHEET	DESCRIPTION
C1.0	COVER SHEET
C2.0	GENERAL NOTES & SUMMARY OF PAY ITEMS
C3.0–C14.0	CONSTRUCTION PLAN & PROFILES – NORTH PROFILE
C15.0–C26.0	CONSTRUCTION PLAN & PROFILES – SOUH PROFILE
C27.0	DETAILS
C28.0–C32.0	STANDARD WATERLINE DETAILS
C33.0	BREVARD COUNTY STANDARD NOTES
C34.0	STORM WATER POLLUTION PREVENTION PLAN NOTES

NOTE:
Contractor is responsible for meeting all OSHA standards related to separation requirements from overhead electric or communication lines. Contractor to coordinate with FPL as required to hold poles (if necessary). All costs associated with FPL pole holding to be included in lump sum clearing and grubbing pay item. Contractor is responsible for coordination with FPL.

VICINITY MAP



NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

COVER

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: **C 1.0**

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 -0540.002 01-02 COVER.dwg Plotted: Dec 20, 2023 - 3:39pm by gmatchett

GENERAL NOTES

Notice
1. This drawing is valid only when signed and sealed by the Engineer(s) of Record. These plans are considered incomplete without all accompanying construction documents such as Technical Specifications, Geotechnical Report, permits, etc., as applicable.
2. These plans, in whole or in part, shall not be reproduced without written consent from DRMP, Inc.

Survey Information
1. Boundary and topographic information shown hereon was provided per survey by DRMP, INC. dated May 5th 2022.
2. Elevations shown hereon are based on North American Vertical Datum of 1988 ("NAVD88")
   Benchmarks are as follows:
   a. Primary benchmark: Brevard County Survey & Mapping Benchmark "E5A58"; a 2.5" brass disk set 12" dia. concrete; 60 feet south of the centerline of Citrus Blvd, and 23.5 feet west of the centerline of Bahia Street. Elevation = 22.17 feet NAVD88
   b. Temporary Site benchmarks as shown hereon.
3. Contractor is to verify the vertical and horizontal location of all existing utilities (underground and overhead) prior to ordering of materials/commencement of construction. Any conflicts shall be reported to the Engineer of Record immediately.
4. Contractor is to protect and/or replace all survey monumentation. Any survey corners disturbed or destroyed shall be replaced by a Florida Licensed Surveyor at Contractor's expense prior to substantial completion of project.

Standards
1. All construction and site practices to comply with FDOT Standard Specifications for Road and Bridge Construction (January 2019) and FDOT Standard Plans (2021–22).
2. All construction to comply with the Owner requirements and the latest specifications, criteria, and construction details of CITY OF COCOA.

General
1. The contractor is responsible for obtaining all permits required for construction (land clearing, dewatering, building, etc.) prior to commencement of construction. Contractor shall have permits posted at the job site at all times.
2. The contractor is responsible for all damage to infrastructure located within the right–of–way and on private property during construction. This includes, but is not limited to, the structural integrity of the roadway asphalt, base, and stabilized sub–base, pavement markings, signage, sidewalks, stormwater drainage system, drainage structures, curbs, and ground cover. All repairs shall be completed in accordance with CITY OF COCOA & FDOT specifications and standards. All repairs shall be completed prior to the final inspection of the project. Utility company specifications may also apply for damage to any existing utilities.
3. Contractor is to sequence construction in a manner that will result in the shortest possible disruption to pedestrian and vehicular traffic.
4. Contractor to maintain required horizontal and vertical clearance from existing overhead electric or communication lines in accordance with all FPL and OSHA requirements. All personnel, equipment, and improvements shall meet these requirements. Shall any proposed improvements conflict with these separation requirements, Contractor shall immediately notify Engineer of Record so that remedial design can be performed.
5. Any regulatory signs removed during the daily construction activity must be reinstalled at the end of each work day. Stop signs to be installed per Exhibit 26 (see sheet C10.0)
6. Contractor is to coordinate with appropriate utilities companies regarding utility relocation efforts. It is the contractor's responsibility to provide adequate notification lead–time for relocations to avoid construction delays. Contractor is to notify Engineer of Record of any utility conflicts.
7. Contractor is responsible for ensuring continuous service for all existing utilities.
8. No overnight parking or storage of materials will be allowed within the rights–of–way without written permission from the appropriate jurisdiction and in no case shall such parking or storage be within the Clear Zone. During active construction all parking and storage of materials shall comply with FDOT Index No. 102–600.
9. Any contractor staging on private property to be pre–approved in writing by property owner.
10. Contractor is responsible for any and all violations associated with construction of the project, including fines imposed from any governing agency involved in enforcement.
11. Contractor is responsible for keeping work area neat and clean. Site area must be restored to original condition or better.
12. The contractor is to erect barricading, flagging or temporary fencing sufficient to restrict all vehicles and unauthorized personnel from the site work area. These barriers must be placed a sufficient distance from the site work area to ensure public safety and are to be maintained throughout construction.
13. Contractor is to provide a minimum of 14 business days' notice to property owner(s) of impending removal of mailboxes, landscaping, sprinklers, signs, etc. to allow removal by property owner(s). Private sprinkler systems left in Rights–of–Way shall be cut and capped at the right–of–way line, and removed items given to property owner(s).
14. Signs and mailboxes shall be maintained and/or replaced as necessary for the duration of the project.
15. Driveways to private residences, internal driveway parking spaces, businesses and all public street connections shall remain open except for periods associated with critical points of construction. Contractor to closely coordinate with property owners to minimize or eliminate inconvenience or business interruptions.
16. Vibratory compaction is not permitted (portable plate compactors are acceptable). Contractor is to utilize static rollers only.
17. All muck or other deleterious material encountered within the project site shall be completely removed and replaced with clean fill materials.
18. Contractor shall provide a copy of all testing results to the Engineer of Record and the Owner.
19. Contractor shall provide certified as–built record drawings (certified by a Florida registered land surveyor) to the Engineer of Record and the Owner. As–built drawings shall be in accordance with CITY OF COCOA requirements.
20. Contractor is responsible for scheduling inspections and testing as required per the project permits.
21. Any signs, pavement markings or RPMs that are damaged during construction activities shall be replaced, restriped or reinstalled as part of this project. If any signs or posts are damaged, refer to BCLD exhibit 26 for the replacement requirements. This is also to include any pavement markings or RPMs that are damaged 100 feet either side of the project limits.
22. Shoring shall be required for excavations within 8 feet from the edge of pavement or 3 feet from edge of sidewalk.

Excavation
1. Contractor acknowledges that, included in the various items of the proposal and in the total bid price, are costs for complying with the Florida Trench Safety Act in compliance with F.S. 553.60.–553.64. These bid prices are to reflect actual costs for complying with the Trench Safety Act (and the requirements of OSHA). Contractor is to provide the owner with a list identifying the trench safety measure description, the units of measure, the unit quantity, unit costs, and total costs for each trench safety measure the contractor proposes to utilize during construction of any phase of this project. This list of trench safety measures and costs is to be supplied to the owner with the bid.
2. Open pits must be filled & restored within one (1) day of excavation. No open trenches during weekends.
3. Contractor is to utilize vertical trenching & associated shoring techniques (such as sheeting, trench boxes, etc.) as needed to ensure the structural integrity, protection and continuous operation of all existing utilities and infrastructure. At a minimum these techniques must also be utilized at all excavations that are:
   a. Within 15 feet of existing power poles and guy wires
   b. Within 8 feet of existing roadways
   c. Within 3 feet of existing sidewalk
4. Contractor is to apply for and acquire a general consumptive use permit (if required) for dewatering activities. All expenses associated with acquiring this permit are incidental to the project and are the responsibility of the Contractor without compensation. All dewatering efforts are the responsibility of the Contractor.

Erosion and Sedimentation Control
1. Stormwater runoff flow patterns must be maintained by the Contractor during the course of construction.
2. The contractor shall install erosion/sedimentation controls and tree/natural area protective fencing prior to any site preparation work (clearing, grubbing, or excavation).
3. Controls and fences shall be in conformance with FDOT, FDEP, and/or St. Johns River Water Management District standards. If a FDEP–NPDES Notice of Intent for Construction Discharge Permit is required Contractor is responsible for preparation of the Stormwater Pollution Prevention Plan (SWPPP), and obtaining the permit (if not provided by the Owner. Contractor is also responsible for all maintenance and reporting activities in conformance with the conditions of the permit.
4. The placement of erosion/sedimentation controls and tree/natural area protective fencing shall be in accordance with the approved erosion and sedimentation control plan (or SWPPP).
5. The contractor is required to inspect the controls and fences at weekly intervals and after significant rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
6. The controls must remain in place until disturbed areas are revegetated and the areas have been permanently stabilized.
7. Prior to final acceptance by the Owner, all controls, fencing, and accumulated sediment must be removed and the area restored to the proper grade.
8. All disturbed areas to be sodded unless otherwise shown. All disturbed areas within right–of–way are to be sodded with Bahia Sod unless existing sod is St. Augustine which shall be replaced with St. Augustine Sod. All sod replacement is to be with like sod type. Construction is limited to within the Rights–of–Way and/or easements obtained. Disturbed areas outside the construction limits will be sodded at the Contractor's expense. Sod shall be pinned for slopes steeper than 4H:1V.

Roadway and Sidewalk
1. All areas requiring striping shall be identified using the Striping and Visual Contact Criteria of the Manual on Uniform Traffic Control Devices (Federal Highway Administration – FHWA). Contractor to remove existing conflicting striping by high pressure water or mechanical means meeting FDOT requirements. Painted temporary striping is to be applied. Final striping shall not be applied until asphalt has properly cured. All final pavement markings are to be thermoplastic.
2. All concrete shall meet FDOT design mix and specifications. Curing method shall be in accordance with the FDOT Specifications for Road and Bridge Construction.
3. Only "New" (FOS) fluorescent orange sheeting shall be used on M.O.T. signage (FDOT Section 994).
4. All open asphalt cuts shall have excavatable flowable fill and temporary asphalt installed within two (2) days of excavation. Permanent asphalt including milling, if needed, shall be completed within thirty (30) days of excavation.
5. Sidewalk ramping shall not exceed a 12:1 slope and must meet F.D.O.T., ADA, and State of Florida requirements.
6. Concrete sidewalks (or pedways) and concrete driveway aprons shall be constructed over soils compacted to 98% density, of AASHTO T–180 6" thick. Should existing soils be found unsuitable for compaction, additional compatible materials shall be brought to the site for use as subgrade. Alternate methods of compaction may be required to avoid damage to surrounding properties. Any additional fill required to achieve grade or compaction is included at Contractor's expense and separate payment will not be made.
7. Expansion joint material shall be installed at all cold joints and at a maximum of every 50 feet. No slip form paving of sidewalk is permitted.
8. Construct sidewalk joints pursuant to FDOT Index No. 522–001. Sidewalk patching will not be acceptable.
9. Contractor shall trim any existing vegetation to provide a minimum of 2 feet horizontal clearance and 10 feet vertical clearance from proposed sidewalk.
10. All posts and hardware for any signs installed on the site or in the Brevard County right–of–way shall adhere to the requirements in Brevard County Land Development Exhibit 26.

MOT
1. A Project Specific Maintenance of Traffic (MOT) plan or Roadway Closure MOT/Detour plan must be submitted to BREVARD COUNTY for Friday Road and FDOT for S.R. 528 for approval a minimum of two (2) weeks prior to start of construction for all roadways. The MOT plan shall be in accordance with MUTCD and FDOT Standard Index 102 Series, Latest Editions.
2. Pre–Construction meetings must be scheduled with CITY OF COCOA, FDOT, and BREVARD COUNTY a minimum of two (2) weeks prior to start of construction for all roadways.
3. Any lane closures shall be coordinated with CITY OF COCOA, FDOT, and BREVARD COUNTY in writing and approved two (2) weeks prior to any lane closures in the Rights–of–way.

FDOT
1. Contact FDOT to schedule Pre–Work Meeting two weeks prior to beginning work (321) 634–6100.
2. Coordinate Open Cut and Mill & Resurface repair with FDOT Permits Office (321) 634–6100.
3. No steel plates shall be allowed on FDOT roadways.

City of Cocoa Utilities
1. All M.J. joints to be restrained using megalugs.
2. All D.I.P. to be wrapped in polyethylene.
3. Customers to be given 48 hours written notice prior to utility relocation.
4. City of Cocoa to perform materials inspection prior to field assembly. The Contractor is responsible for scheduling this inspection with a City of Cocoa Engineering Inspector.
5. City of Cocoa inspectors must be present to see all pipe construction. Visual inspection required in addition to pressure testing.
6. Regardless of private or public dedication, there shall be no utility connections or meter boxes within proposed or existing sidewalks or driveway areas.
7. All waterline pipe to be swabbed with chlorine and a bacteriological test is required.
8. Jumper assemblies are to be located as close to the right–of–way as possible.

NOTICE TO CONTRACTOR

FDEP CONSTRUCTION SPECIFICATION NOTES FOR WATER & SEWER

(1) Horizontal Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, Reclaimed Water Pipelines, and On-Site Sewage Treatment and Disposal Systems.
(a) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed storm sewer, storm water force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
(b) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer.
(c) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer.
(d) New or relocated, underground water mains shall be laid to provide a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

(2) Vertical Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, and Reclaimed Water Pipelines.
(a) New or relocated, underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer or storm sewer shall be laid so the outside of the water main is at least six inches, and preferably 12 inches, above or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.
(b) New or relocated, underground water mains crossing any existing or proposed pressure-type sanitary sewer, wastewater or storm water force main, or pipeline conveying reclaimed water shall be laid so the outside of the water main is at least 12 inches above or below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.
(c) At the utility crossings described in paragraphs (a) and (b) above, one full length of water main pipe shall be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline. Alternatively, at such crossings, the pipes shall be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, storm sewers, storm water force mains, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

(3) Separation Between Water Mains and Sanitary or Storm Sewer Manholes.
(a) No water main shall pass through, or come into contact with, any part of a sanitary sewer manhole.
(b) Effective August 28, 2003, water mains shall not be constructed or altered to pass through, or come into contact with, any part of a storm sewer manhole or inlet structure

(4) Separation Between Fire Hydrant Drains and Sanitary or Storm Sewers, Wastewater or Storm water Force Mains, Reclaimed Water Pipelines, and On-Site Sewage Treatment and Disposal Systems. New or relocated fire hydrants with underground drains shall be located so that the drains are at least three feet from any existing or proposed storm sewer, storm water force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.; at least three feet, and preferably ten feet, from any existing or proposed vacuum-type sanitary sewer; at least six feet, and preferably ten feet, from any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.; and at least ten feet from any existing or proposed "on-site sewage treatment and disposal system" as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.

NOTE: Right-of way review and approval does not constitute County approval or review of any private party deed restrictions, private easements, or other private agreements. Any changes to the approved plans must be coordinated thru the Land Development Section. The applicant assumes the risk that the site plan may require additional County reviews including engineering revisions or other applicable County review processes should any action to enforce any such restrictions require redesign of the site.

Summary of Pay Items

Item #	Qty	Un	Description
Miscellaneous			
101-1	1	LS	Mobilization
101-2	1	LS	Pre & post construction video
101-3	1	LS	Record drawings
102-1	1	LS	Maintenance of traffic
104-30	1	LS	Erosion & sediment control
110-1-1	1	LS	Clearing and grubbing (selective)
121-70	42	CY	Flowable fill
327-70-6	145	SY	Mill exist. asphalt pvmt., 1.5" avg. depth
334-1-13	36	TN	Superpave asphalt, SP-12.5, traf. C
570-1-3	3,600	SY	Sod, Bahia
570-1-4	100	SY	Sod, St. Augustine (contingency)
700-1	1	LS	Signing and pavement markings
Potable Water			
1050-31-208	60	LF	8" PVC C900 DR18
1050-31-212	1,720	LF	12" PVC C900 DR18
1050-41-214	3,110	LF	Direct bore 14" HDPE
1050-51-213	30	LF	12" DIP
1055-1	4.40	TN	Fittings
1080-11-304	10	EA	6" Gate valve
1080-11-402	1	EA	8"×8" Wet tap
1080-11-403	1	EA	12"×8" Wet tap
1080-11-404	6	EA	12" Gate valve
1080-11-405	1	EA	30"×12" Wet tap
1644-116-08	10	EA	Fire hydrant
Force Main			
2050-31-208	920	LF	8" PVC C900 DR18
2050-41-210	4,660	LF	Direct bore 10" HDPE
2055-1	1.45	TN	Fittings
2080-11-402	4	EA	8" Gate valve
2080-11-403	1	EA	12"×8" Wet tap
2080-11-406	7	EA	Air/vac assembly
Reclaimed Water			
3050-31-212	300	LF	12" PVC C900 DR18
3050-41-214	2,140	LF	Direct bore 14" HDPE
3055-1	0.95	TN	Fittings
3080-11-404	2	EA	12" Gate valve

DSN BY	LB	7	12/20/23	COCOA UTILITIES COMMENTS	GM
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CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

GENERAL NOTES / SUMMARY OF PAY ITEMS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

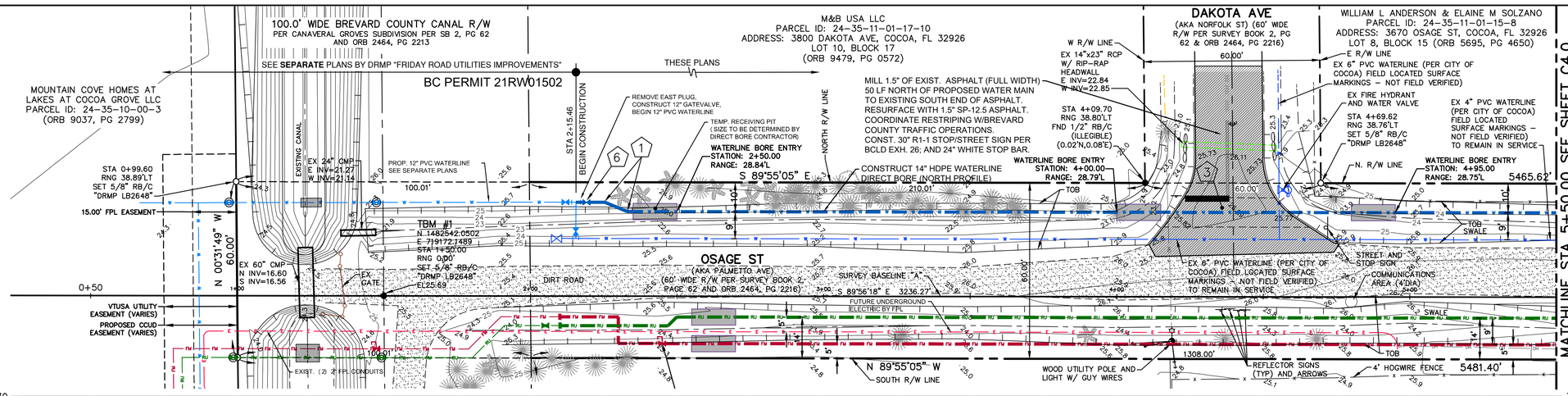
DRMP, Inc.

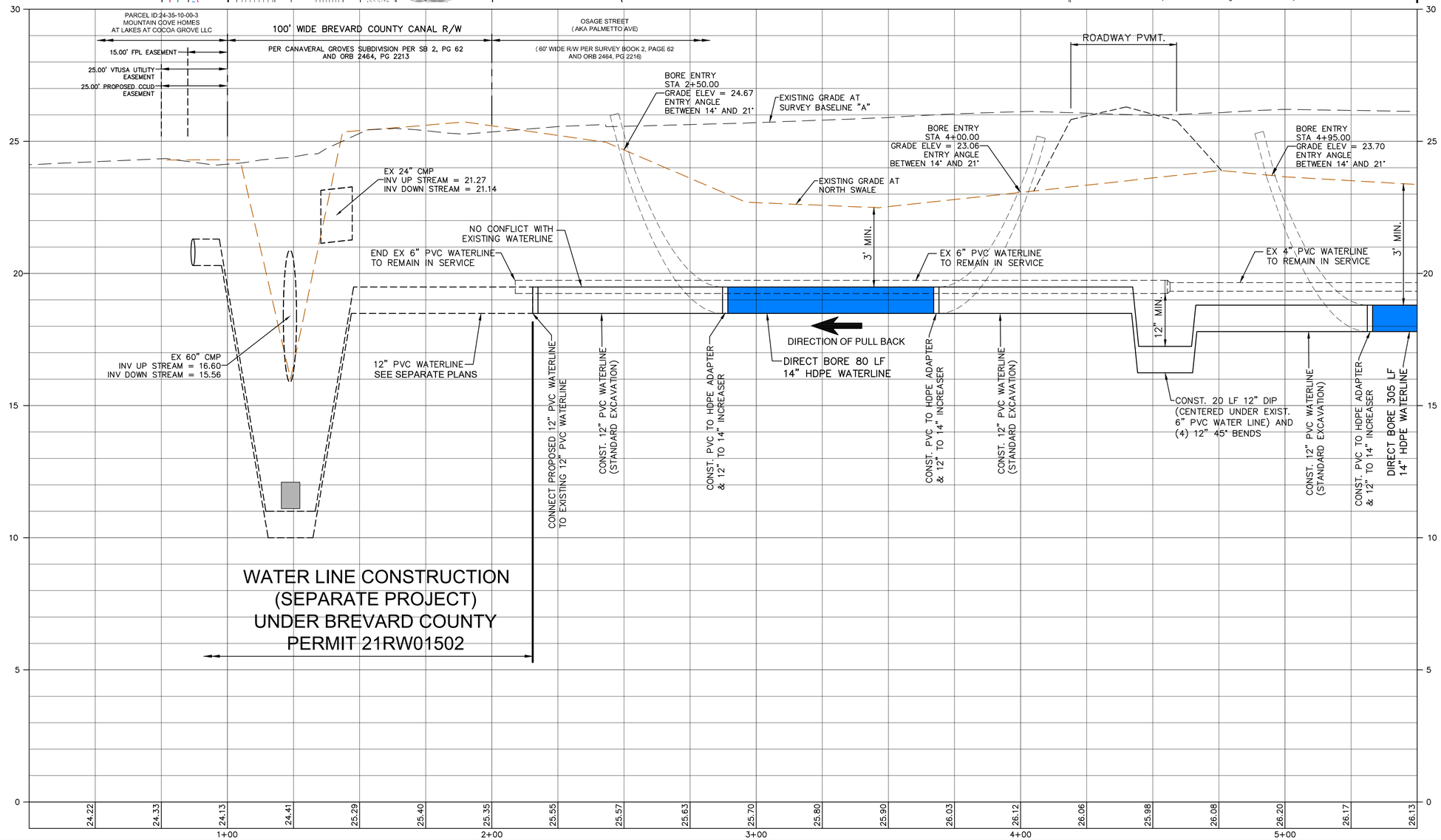
JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: N/A
DATE: July 22, 2022
SHEET: C 2.0

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CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
3. PAVEMENT OPEN CUT & REPLACEMENT (SEE DETAIL)
4. 12"x12" TAPPING SLEEVE & 12" TAPPING VALVE
5. 8" GATE VALVE
6. 12" GATE VALVE
7. 2" AIR RELEASE/ VACUUM VALVE
8. 45° BEND
9. 12"x6" TEE, 6" HYDRANT VALVE, AND FIRE HYDRANT
10. 12"x8" TAPPING SLEEVE & 8" TAPPING VALVE
11. 8"x8" TAPPING SLEEVE & 8" TAPPING VALVE

NOTE:
SEE SOUTH PROFILE SHEETS FOR FORCEMAIN AND REUSE CONSTRUCTION

NOTE:
VALVE AND TEE LOCATIONS ARE SHOWN FOR GRAPHIC CLARITY ONLY. ALL VALVES SHALL BE LOCATED ADJACENT TO TEES WHENEVER POSSIBLE, UNLESS SPECIFICALLY SHOWN OTHERWISE.

NO.	DATE	REVISION DESCRIPTION	APPR BY
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3	02/13/23	COCOA UTILITIES COMMENTS	GM
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1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES NORTH PROFILE

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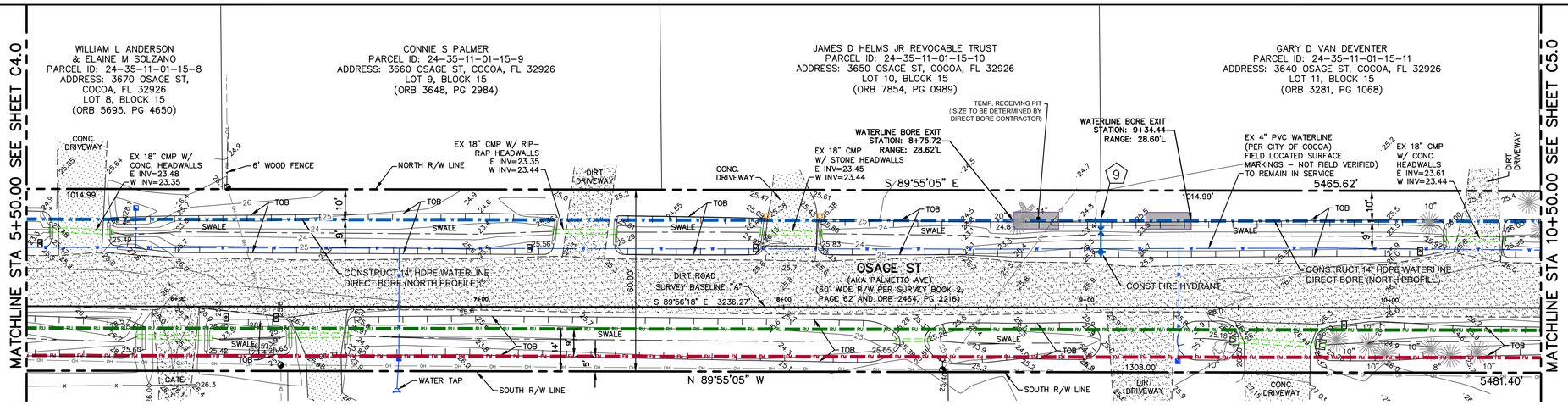
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JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER:	21-0540.002
SCALE:	1"=20' H 1"=2' V
DATE:	July 22, 2022
SHEET:	C 3.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 03-14 CONST PLAN PROFILE NORTH.dwg Plotted: Dec 20, 2023 - 3:40pm by gmatchett



CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
3. PAVEMENT OPEN CUT & REPLACEMENT (SEE DETAIL)
4. 12"x12" TAPPING SLEEVE & 12" TAPPING VALVE
5. 8" GATE VALVE
6. 12" GATE VALVE
7. 2" AIR RELEASE/ VACUUM VALVE
8. 45° BEND
9. 12"x6" TEE, 6" HYDRANT VALVE, AND FIRE HYDRANT
10. 12"x8" TAPPING SLEEVE & 8" TAPPING VALVE
11. 8"x8" TAPPING SLEEVE & 8" TAPPING VALVE

NOTE:
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NOTE:
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MATCHLINE STA 10+50.00 SEE SHEET C4.0

MATCHLINE STA 16+50.00 SEE SHEET C6.0

JEFFREY A AND LORRI A BRASO
PARCEL ID: 24-35-11-01-15-12
ADDRESS: 3630 OSAGE ST, COCOA, FL 32926
LOT 12, BLOCK 15
(ORB 7318, PG 2431)

FAFARD FAMILY TRUST
PARCEL ID: 24-35-11-01-15-13
ADDRESS: 3620 OSAGE ST, COCOA, FL 32926
LOT 13, BLOCK 15
(ORB 7457, PG 0133)

JEFFREY G & KYMBERLY N GARRISON
PARCEL ID: 24-35-11-01-15-14
ADDRESS: 3610 OSAGE ST, COCOA, FL 32926
LOT 14, BLOCK 15
(ORB 3077, PG 4881)

KATHLEEN J DUDLEY
PARCEL ID: 24-35-11-01-10-14
ADDRESS: 3596 ANGELICA ST,
COCOA, FL 32926
LOT 14, BLOCK 10
(ORB 4953, PG 1254)

80.0' WIDE CANAL
PER CANAVERAL GROVES
SUBDIVISION PER SURVEY BOOK 2,
PG 62 AND ORB 2464, PG 2213

OSAGE ST
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2,
PAGE 62 AND ORB 2464, PG 2216)

ANGELICA ST
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2,
PAGE 62 AND ORB 2464, PG 2216)

EX 18" CMP W/ CONC. HEADWALLS
E INV=23.40
W INV=23.55

EX 4" PVC WATERLINE (PER CITY OF COCOA) FIELD LOCATED SURFACE MARKINGS - NOT FIELD VERIFIED) TO REMAIN IN SERVICE

TEMP. RECEIVING PIT
(SIZE TO BE DETERMINED BY DIRECT BORE CONTRACTOR)

WATERLINE BORE EXIT
STATION: 13+20.00
RANGE: 28.46'L

WATERLINE BORE EXIT
STATION: 13+60.00
RANGE: 28.45'L

EX 18" CMP W/ CONC. HEADWALLS
E INV=23.15
W INV=23.26

STA 14+84.61 RNG 38.40'LT
SET 5/8" RB/C "DRMP LB2648"

STA 14+84.49
RNG 38.78'LT
FND 5/8" RB/C
"FREDLUND & PACKARD"
(0.37'N,0.12'W)

REUSE BORE EXIT
STATION: 14+75.00
RANGE: 25.41'L

EX 24" ADS W/ RIP-RAP HEADWALLS
E INV=22.52
W INV=22.93

STA 15+64.61
RNG 38.37'LT
SET 5/8" RB/C
"DRMP LB2648"

EX 18" CMP W/ CONC. HEADWALLS
E INV=22.88
W INV=23.07

SURVEY BASELINE "A"

S 89°55'05" E 5465.62'

S 89°56'18" E 3236.27'

N 89°55'05" W 1308.00'

1014.99'

1018.00'

995.00'

5481.40'

CONSTRUCT 14" HDPE WATERLINE
DIRECT BORE (NORTH PROFILE)

CONSTRUCT 14" HDPE REUSE
DIRECT BORE (SOUTH PROFILE)

CONSTRUCT 10" HDPE FORCEMAIN
DIRECT BORE (SOUTH PROFILE)

CONST. 14" HDPE WATERLINE
DIRECT BORE (NORTH PROFILE)

CONST. 14" HDPE REUSE
DIRECT BORE (NORTH PROFILE)

END DIRT ROAD

1' DIA POSTS AND GATE

TEMP. RECEIVING PIT
(SIZE TO BE DETERMINED BY DIRECT BORE CONTRACTOR)

8"x6" WOOD POSTS (TYP)

END EXISTING WATERLINE TO REMAIN IN SERVICE

STATION: 14+46.96
RANGE: 16.58'R

SCALE: 1" = 20'

NORTH

(IN FEET)
1 INCH = 20 FT.

OSAGE STREET
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

80' WIDE CANAL
PER CANAVERAL GROVES
SUBDIVISION PER SURVEY BOOK 2,
PG 62 AND ORB 2464, PG 2213

ANGELICA STREET
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

EX 18" CMP
INV UP STREAM = 23.55
INV DOWN STREAM = 23.40

EXISTING GRADE AT
SURVEY BASELINE "A"

EXISTING GRADE
AT NORTH SWALE

BORE EXIT WATERLINE
STA 13+20.51
GRADE ELEV = 23.86
ENTRY ANGLE
BETWEEN 14° AND 21°

BORE EXIT WATERLINE
STA 13+60.61
GRADE ELEV = 23.50
ENTRY ANGLE
BETWEEN 14° AND 21°

EX 24" ADS
INV UP STREAM = 22.93
INV DOWN STREAM = 22.52

EX 18" CMP
INV UP STREAM = 23.26
INV DOWN STREAM = 23.15

EX 18" CMP
INV UP STREAM = 23.05
INV DOWN STREAM = 23.01

EX 18" CMP
INV UP STREAM = 23.07
INV DOWN STREAM = 22.88

3' MIN.

3' COVER

3' MIN.

EX 4" PVC WATERLINE
TO REMAIN IN SERVICE

128' R

BORE EXIT REUSE
STA 14+75.00
GRADE ELEV = 23.23
ENTRY ANGLE
BETWEEN 14° AND 21°

DIRECTION OF PULL BACK

DIRECT BORE 315 LF
14" HDPE WATERLINE

CONST. PVC TO HDPE ADAPTER & 12" TO 14" INCREASER

CONSTRUCT 12" PVC WATERLINE 36" MIN. COVER

CONST. PVC TO HDPE ADAPTER & 12" TO 14" INCREASER

END EX 4" WATERLINE - NO CONFLICT

12" PVC REUSE SEE SOUTH PROFILE FOR CONTINUATION

CONSTRUCT 12" PVC REUSE SAME DEPTH AS WATERLINE, SHOWN OFFSET FOR CLARITY)

CONST. 12" 45° BEND

CONST. 12" 22.5° BEND

CONST. PVC TO HDPE ADAPTER & 12" TO 14" INCREASER

BORE PC WATERLINE AND RESUE

128' R

6' COVER

DIRECTION OF PULL BACK REUSE AND WATERLINE

DIRECT BORE 1040 LF
14" HDPE REUSE

DIRECT BORE 400 LF
14" HDPE WATERLINE (NOT SHOWN)
(PARALLEL WITH REUSE)

26.18 26.04 26.21 26.26 26.30 26.26 26.24 26.17 26.05 25.93 26.06 26.13 26.19 26.23 26.17 25.81 25.82 25.97 19.78 21.38 26.88 26.86 26.83 26.80

11+00 12+00 13+00 14+00 15+00 16+00

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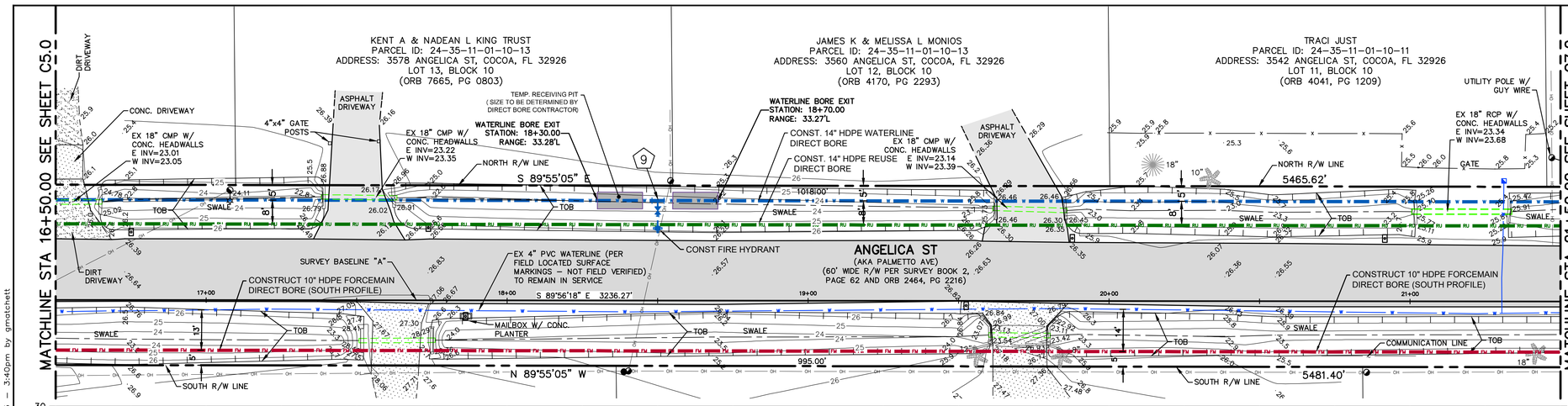
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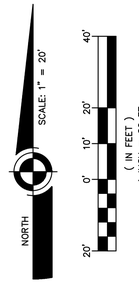
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CITY OF COCOA, FLORIDA

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MATCHLINE STA 21+50.00 SEE SHEET C6.0

JOHN A RAY
PARCEL ID: 24-35-11-01-10-10
ADDRESS: 3524 ANGELICA ST, COCOA, FL 32926
LOT 10, BLOCK 10
(ORB 3028, PG 4965)

THEODORE RODRIGUEZ & BRENDA GIBBS-RODRIGUEZ
PARCEL ID: 24-35-11-01-10-9
ADDRESS: 3506 ANGELICA ST, COCOA, FL 32926
LOT 9, BLOCK 10
(ORB 7105, PG 1969)

ALAN SHEPARD AVE
(100' PUBLIC R/W; CANAVERAL GROVES SUB; SB 2, P62 & ORB 2464, P2216)

MATCHLINE STA 27+25.00 SEE SHEET C8.0

NORTH
SCALE: 1" = 20'
(IN FEET)
1 INCH = 20 FT.

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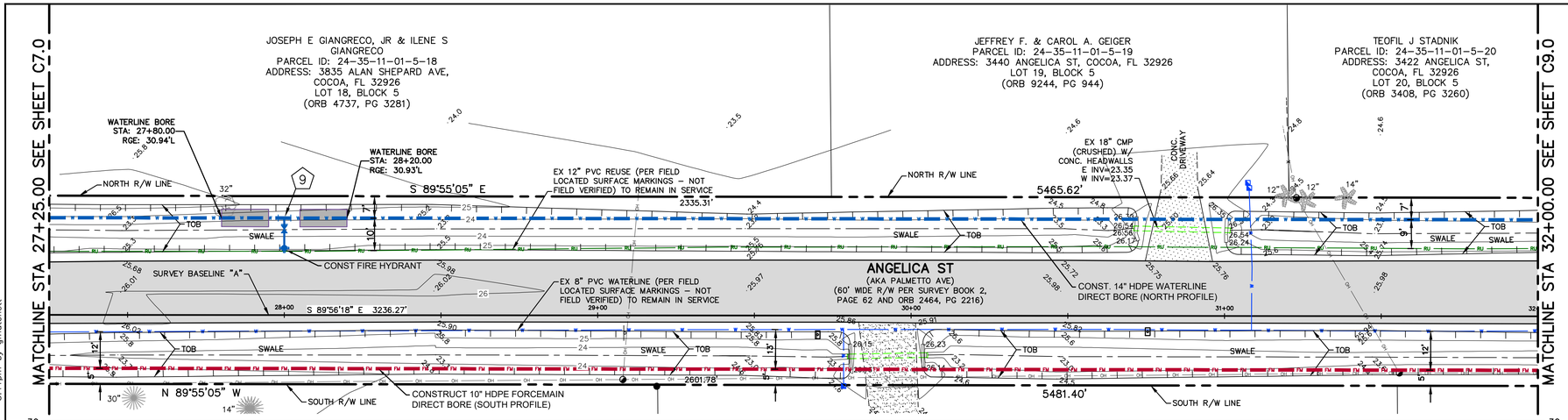
CONSTRUCTION LEGEND

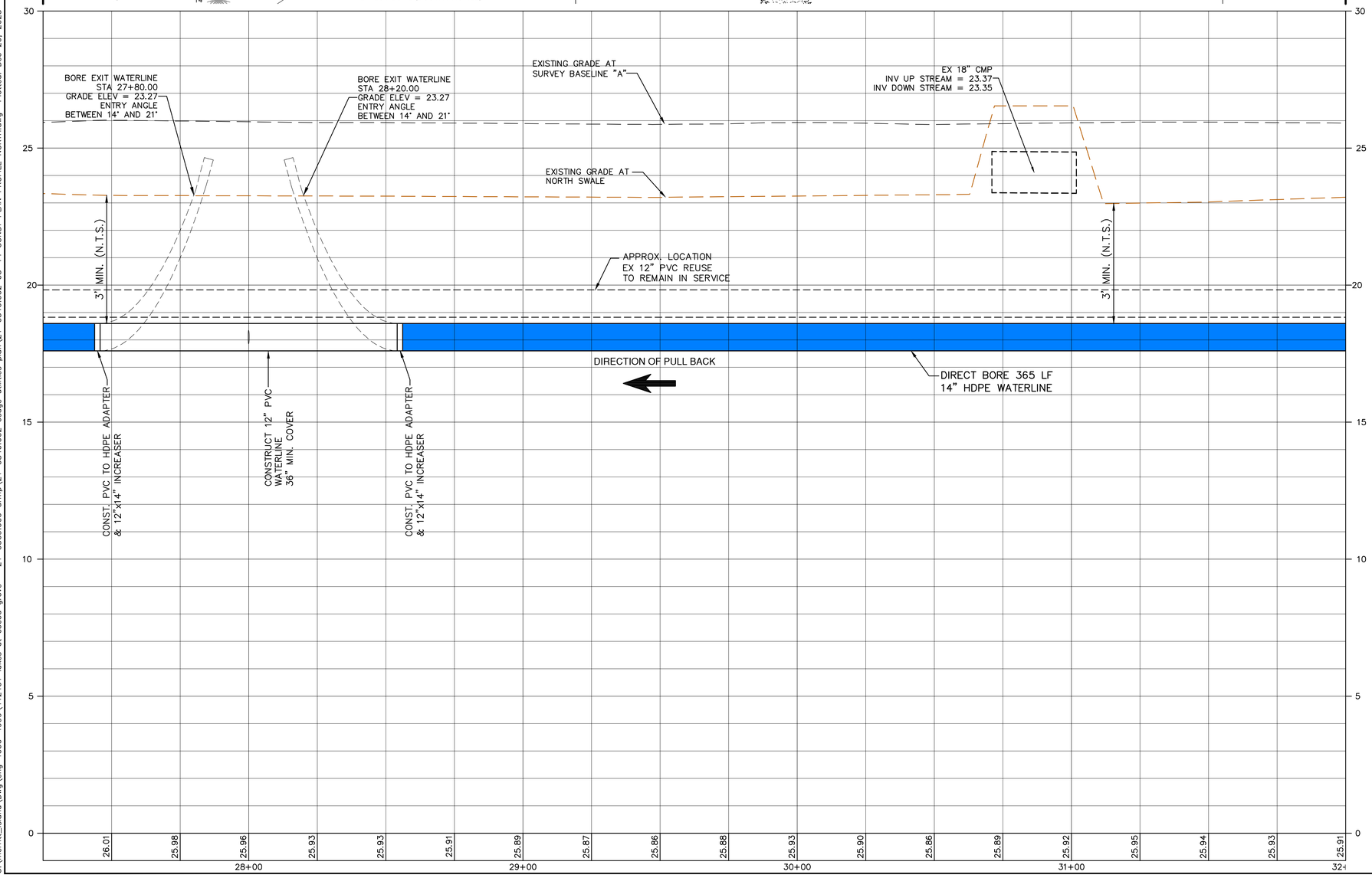
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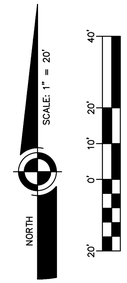
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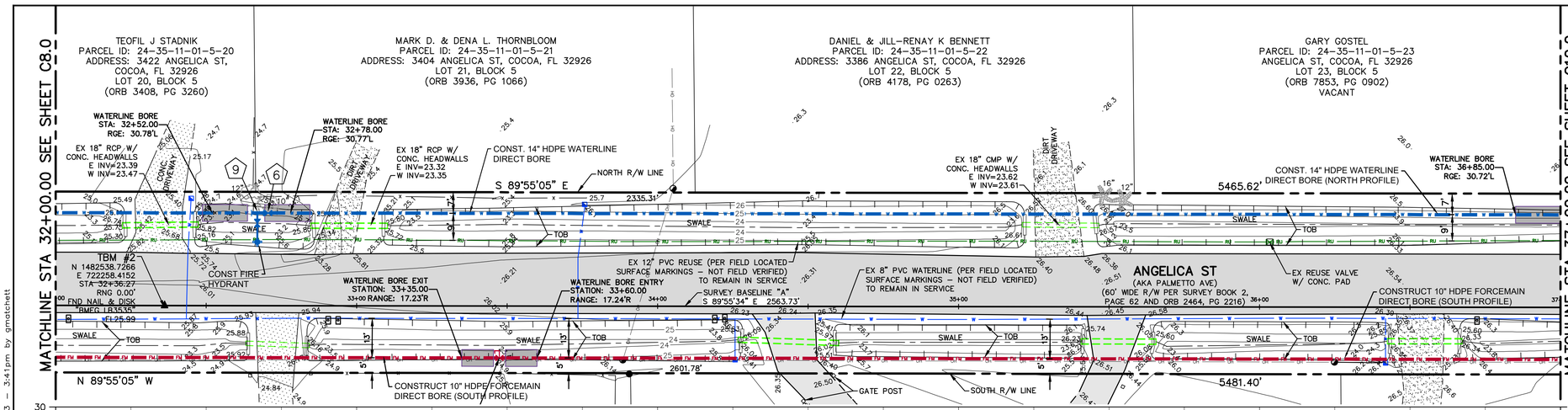
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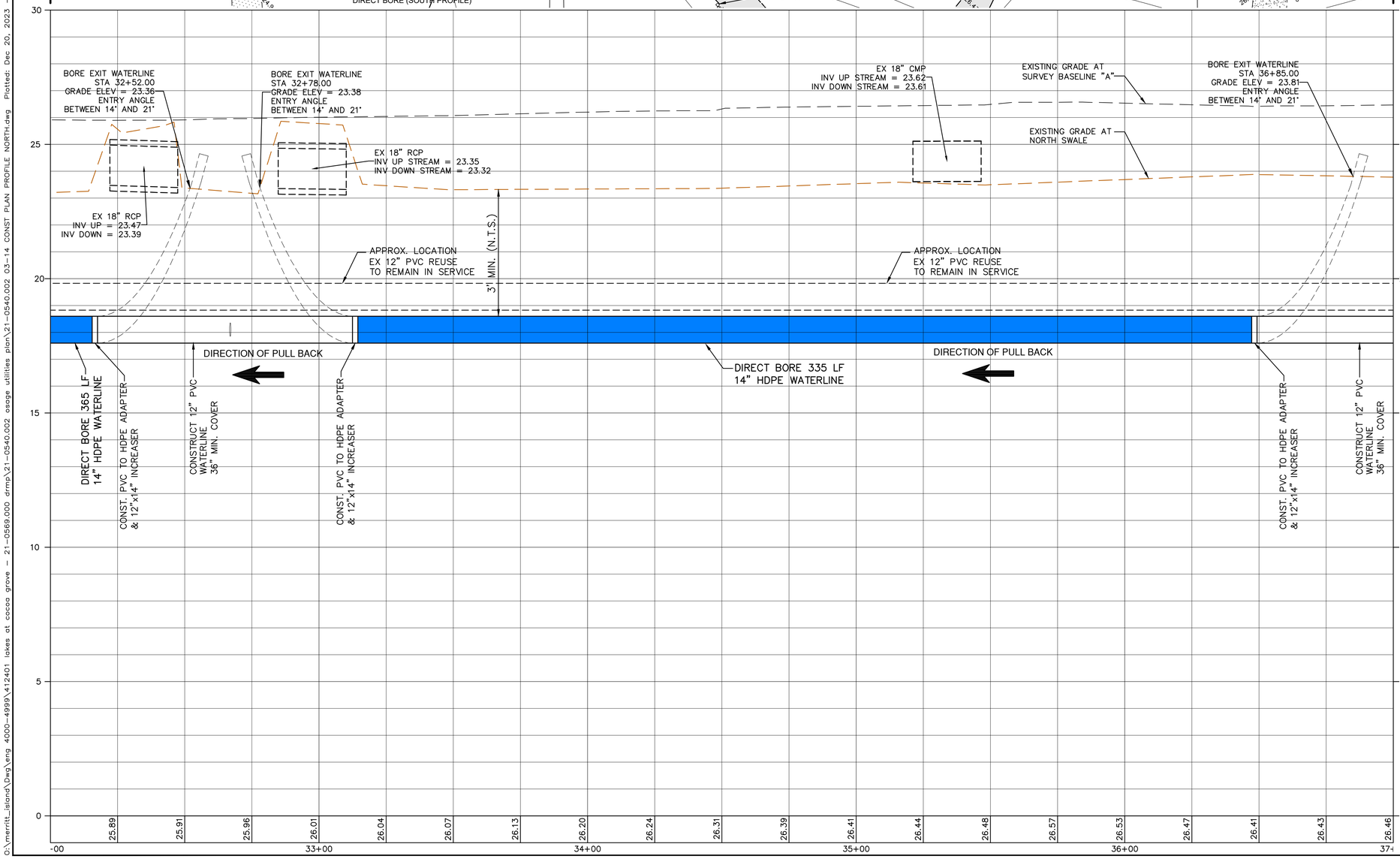
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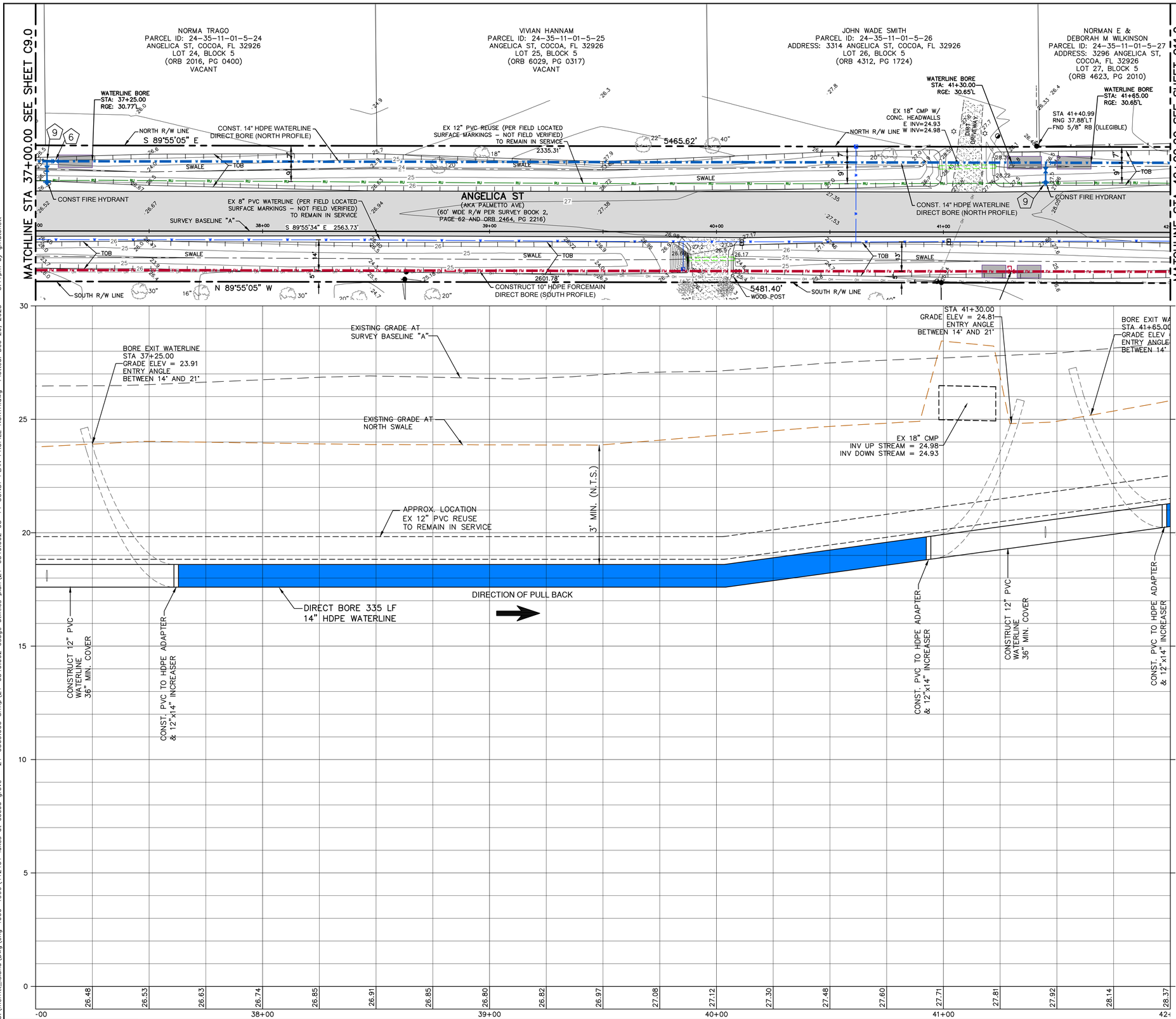
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JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: 1"=20' H 1"=2' V
DATE: July 22, 2022
SHEET: C 9.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 CONST PLAN PROFILE NORTH.dwg Plotted: Dec 20, 2023 - 3:41pm by gmatchett



NORTH

SCALE: 1" = 20'

(IN FEET)
1 INCH = 20 FT.

CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
3. PAVEMENT OPEN CUT & REPLACEMENT (SEE DETAIL)
4. 12"x12" TAPPING SLEEVE & 12" TAPPING VALVE
5. 8" GATE VALVE
6. 12" GATE VALVE
7. 2" AIR RELEASE/ VACUUM VALVE
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NOTE:
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1	11/03/22	COCOA UTILITIES COMMENTS	LB

APPR BY: MEP | CHK BY: SN | DRN BY: LB | DSN BY: LB

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

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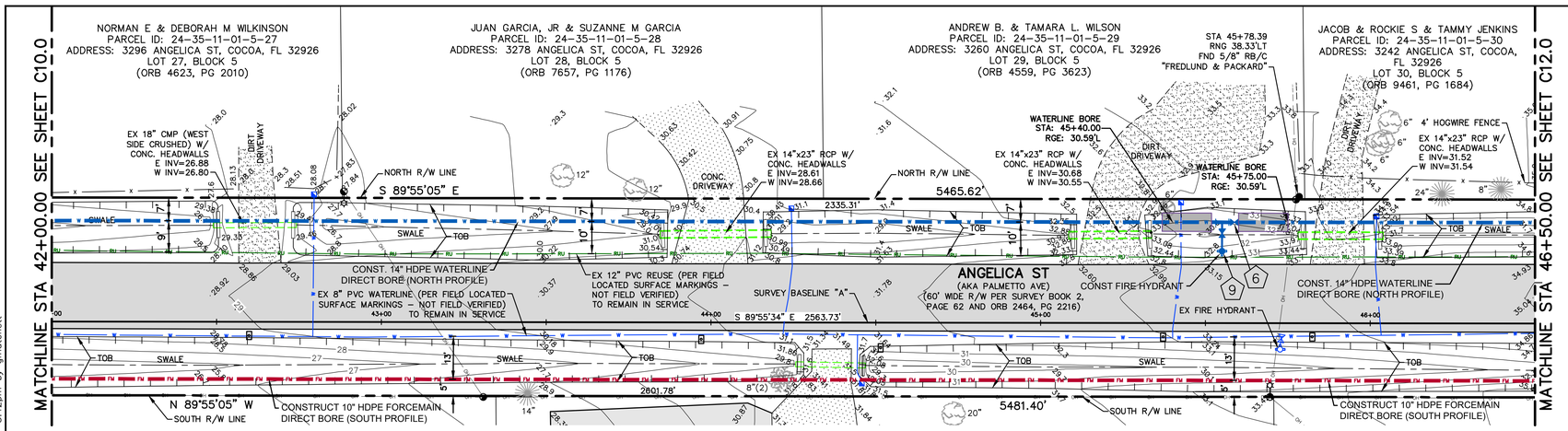
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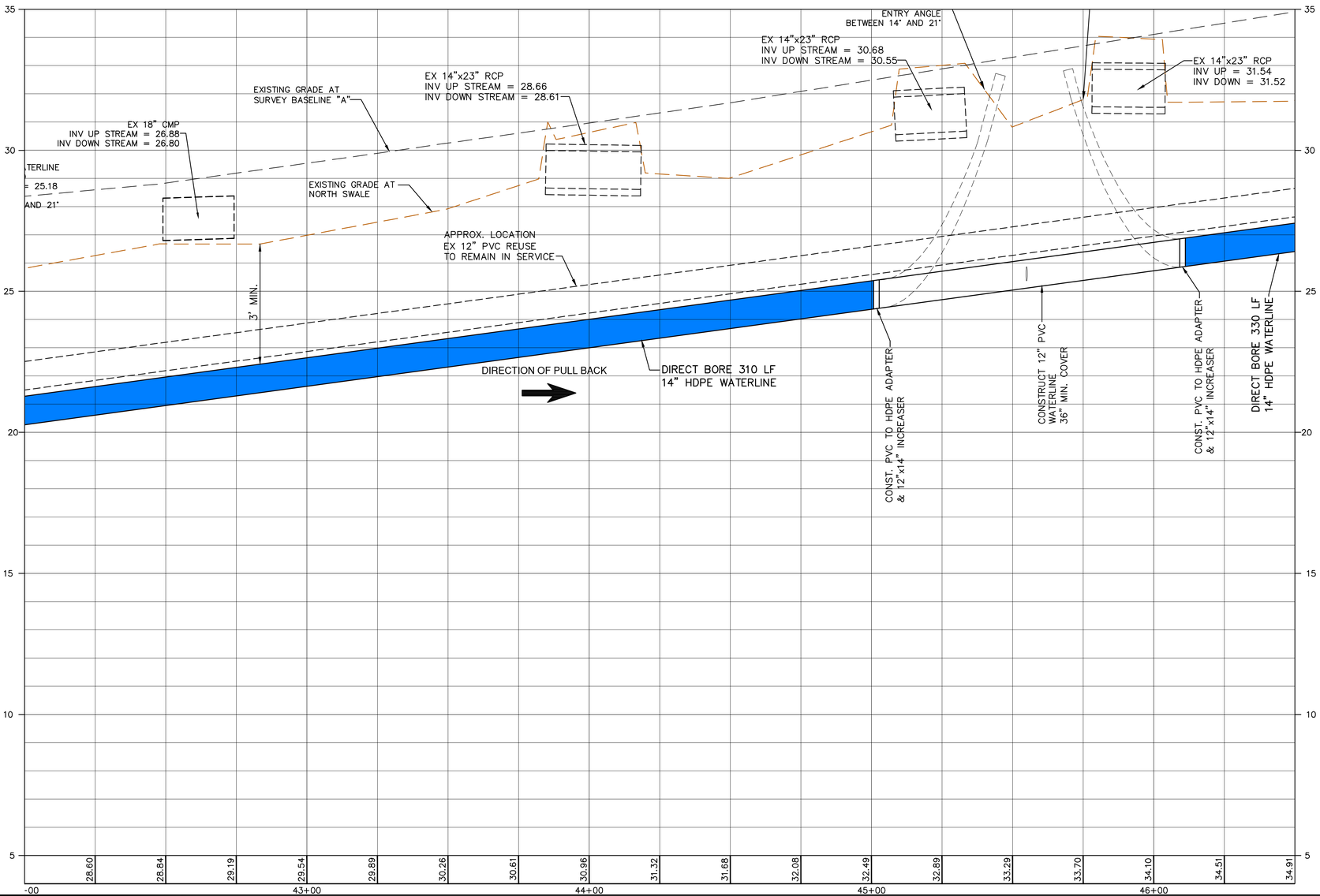
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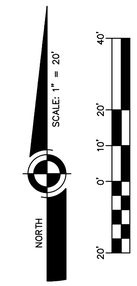
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JACOB & ROCKIE S & TAMMY JENKINS
PARCEL ID: 24-35-11-01-5-30
ADDRESS: 3242 ANGELICA ST, COCOA, FL 32926
LOT 30, BLOCK 5
(ORB 9461, PG 1684)

RANDY W. & MICHELLE L. MARTIN
PARCEL ID: 24-35-11-01-5-31
ADDRESS: 3224 ANGELICA ST, COCOA, FL 32926
LOT 31, BLOCK 5
(ORB 3266, PG 3432)

DENNIS D. & JOAN M. SINK
PARCEL ID: 24-35-11-01-5-32
ADDRESS: 3830 CHEROKEE AVE, COCOA, FL 32926
LOT 32, BLOCK 5
(ORB 3637, PG 0716)

GEORGE R. & MELANIE C. MELANCON
PARCEL ID: 24-35-11-01-10
ADDRESS: 3835 CHEROKEE AVE, COCOA, FL 32926
LOT 10, BLOCK 1
(ORB 6979, PG 1517)

MATCHLINE STA 46+50.00 SEE SHEET C11.0

MATCHLINE STA 51+50.00 SEE SHEET C13.0

EX 14"x23" RCP W/ CONC. HEADWALLS E INV=32.93 W INV=33.19

EX 18" CMP (CRUSHED) W/ CONC. HEADWALLS E INV=34.23 W INV=34.34

4" HOGWIRE FENCE

DIRT DRIVEWAY

NORTH R/W LINE

S 89°55'05" E 2335.31'

EX 14"x23" RCP W/ CONC. HEADWALLS E INV=35.86 W INV=35.94

GATE

5465.62'

WATERLINE BORE ENTRY
STATION: 49+75.00
RANGE: 30.53'L

WEST R/W LINE

EX 6" PVC WATERLINE (PER CITY OF COCOA RECORD DRAWINGS NOT FIELD VERIFIED)
STA 50+17.90 RNG 37.74'LT FND 1/2" RB/C "ISLAND SURVEYING" (0.22'N,0.03'W)
STA 50+17.93 RNG 37.52'LT SET 5/8" RB/C "DRMP LB2648"

CHEROKEE AVE
(AKA WASHINGTON ST)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

EAST R/W LINE

STA 50+76.26, RNG 36.06'LT FND 5/8" RB/C (ILLEGIBLE)(1.45'S,1.67'W)
STA 50+77.93, RNG 37.52'LT SET 5/8" RB/C "DRMP LB2648"

206.80'

EX WATER VALVE W/ CONC. PAD

CONSTRUCT 10" HDPE FORCEMAIN DIRECT BORE (SOUTH PROFILE)

CONST. 14" HDPE WATERLINE DIRECT BORE (NORTH PROFILE)

ANGELICA ST
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

EX 8" PVC WATERLINE (PER FIELD LOCATED SURFACE MARKINGS – NOT FIELD VERIFIED) TO REMAIN IN SERVICE

EX 12" PVC REUSE (PER FIELD LOCATED SURFACE MARKINGS – NOT FIELD VERIFIED) TO REMAIN IN SERVICE

TEMP. RECEIVING PIT (SIZE TO BE DETERMINED BY DIRECT BORE CONTRACTOR)

CONST FIRE HYDRANT

EX 30" RCP WATERMAIN (PER FIELD LOCATED SURFACE MARKINGS – NOT FIELD VERIFIED)

SURVEY BASELINE "A"

S 89°55'34" E 2563.73'

47+00 48+00 49+00 50+00 51+00

CONSTRUCT 10" HDPE FORCEMAIN DIRECT BORE (SOUTH PROFILE)

SOUTH R/W LINE

N 89°55'05" W 2601.78'

5481.40'

SOUTH R/W LINE

ANGELICA STREET (AKA PALMETTO AVE) (60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

CHEROKEE AVE (AKA WASHINGTON ST) (60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

ANGELICA STREET (AKA PALMETTO AVE) (60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

EXISTING GRADE AT SURVEY BASELINE "A"

EX 18" CMP
INV UP STREAM = 34.34
INV DOWN STREAM = 34.23

EX 14"x23" RCP
INV UP STREAM = 33.19
INV DOWN STREAM = 32.93

EXISTING GRADE AT NORTH SWALE

BORE EXIT WATERLINE
STA 49+75.00
GRADE ELEV = 36.56
ENTRY ANGLE BETWEEN 14° AND 21°

APPROX. LOCATION EX 6" PVC WATERLINE TO REMAIN IN SERVICE. LOCATION TO BE VERIFIED PRIOR TO CONSTRUCTION

CONNECT PROPOSED 12" PVC WATERLINE TO EXISTING 30" RCP WATERLINE

EX 14"x23" RCP
INV UP STREAM = 35.94
INV DOWN STREAM = 35.86

APPROX. LOCATION EX 12" PVC REUSE TO REMAIN IN SERVICE

3' MIN.

DIRECT BORE 330 LF 14" HDPE WATERLINE

DIRECTION OF PULL BACK

CONST. PVC TO HDPE ADAPTER & 12" TO 14" INCREASER

CONSTRUCT 12" PVC WATERLINE 36" MIN. COVER

EX 12" PVC REUSE BEHIND WATERLINE NO CONFLICT

APPROX. LOCATION EX 30" RCP WATERLINE TO REMAIN IN SERVICE

35 30 25 20 15

35.31 35.71 36.10 36.45 36.68 36.90 37.15 37.55 37.82 38.09 38.36 38.64 38.90 39.20 39.50 39.80 40.08 40.36 40.61 41.04

47+00 48+00 49+00 50+00 51+00

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TS TAPPING SLEEVES FOR REINFORCED CONCRETE MAINS WILL BE HANDLED ON A CASE BY CASE BASIS. THE SLEEVES WILL HAVE A FUSION-BONDED EPOXY COATING ON THE ENTIRE BODY AND THROAT ASSEMBLY. THE STRAPS AND BOLTS SHALL BE 18-8 TYPE 304 STAINLESS STEEL.

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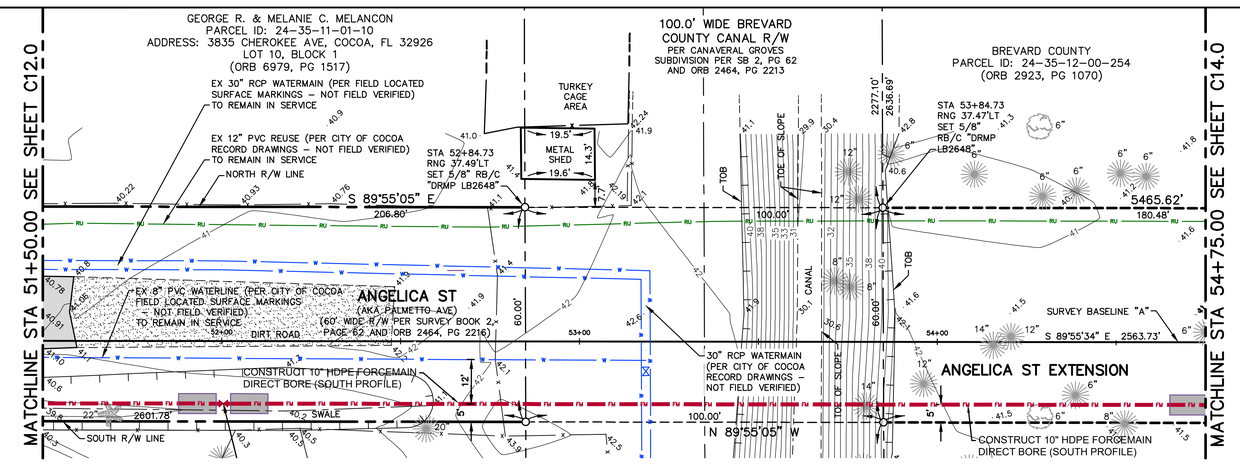
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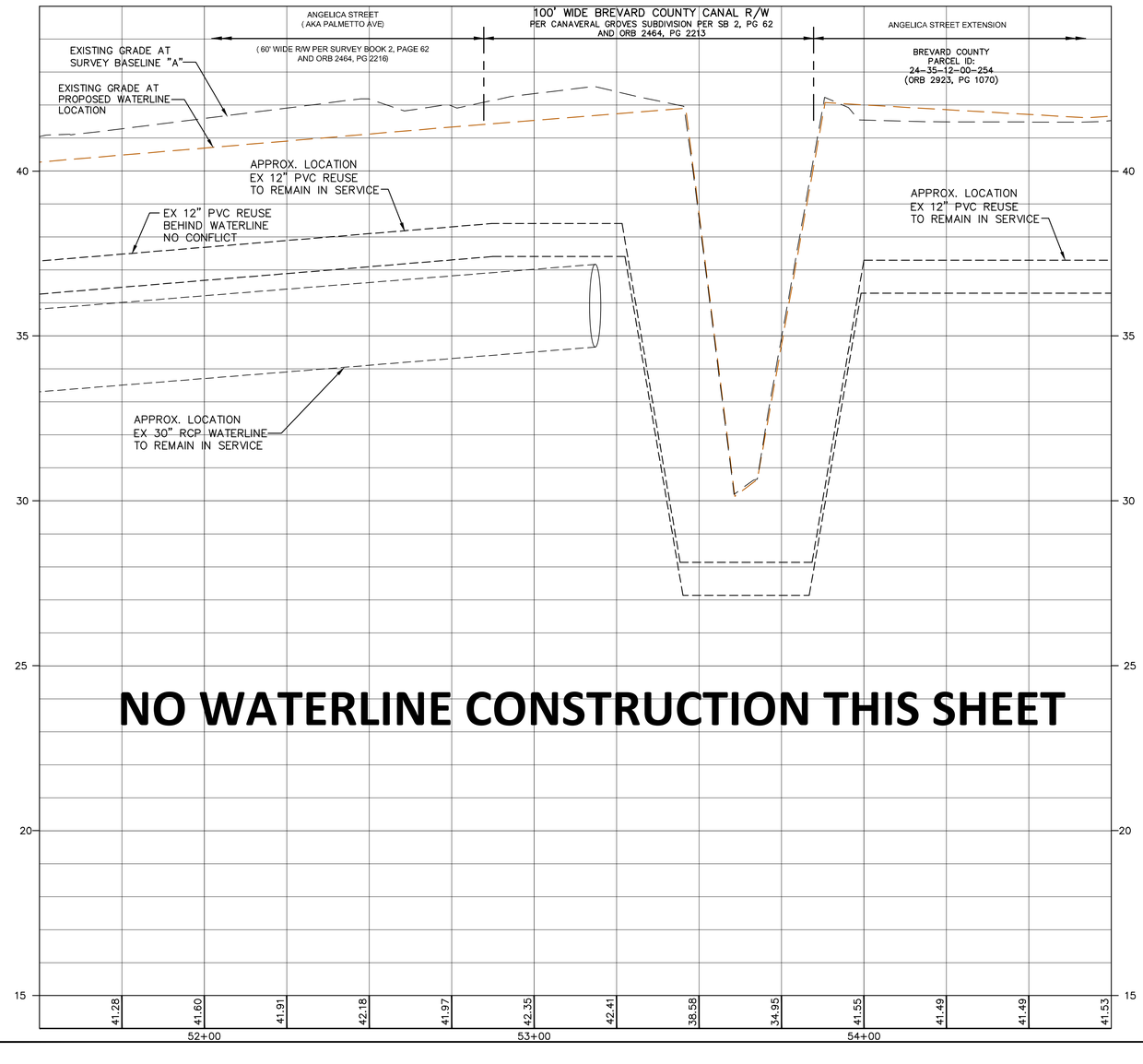
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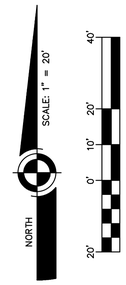
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NO WATERLINE CONSTRUCTION THIS SHEET



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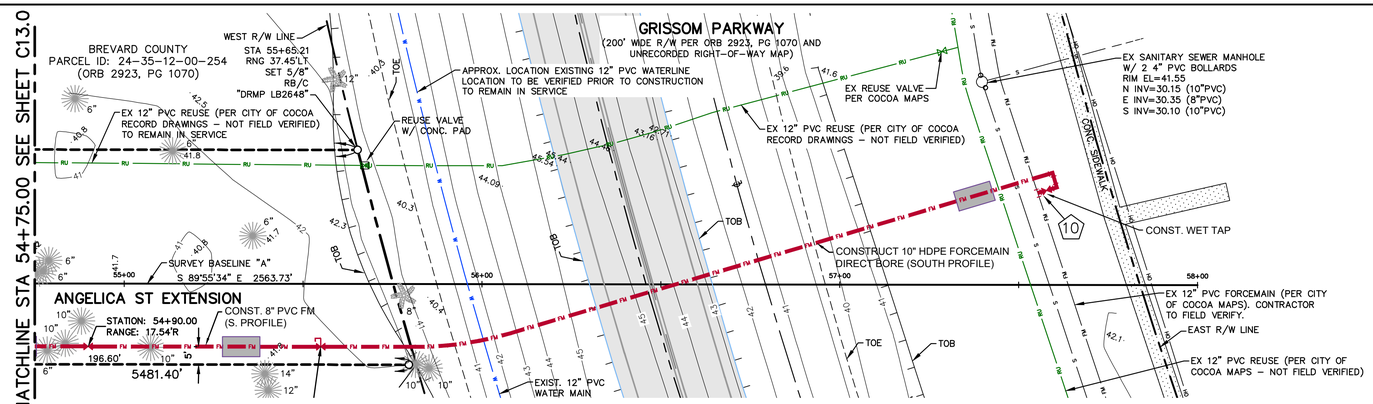
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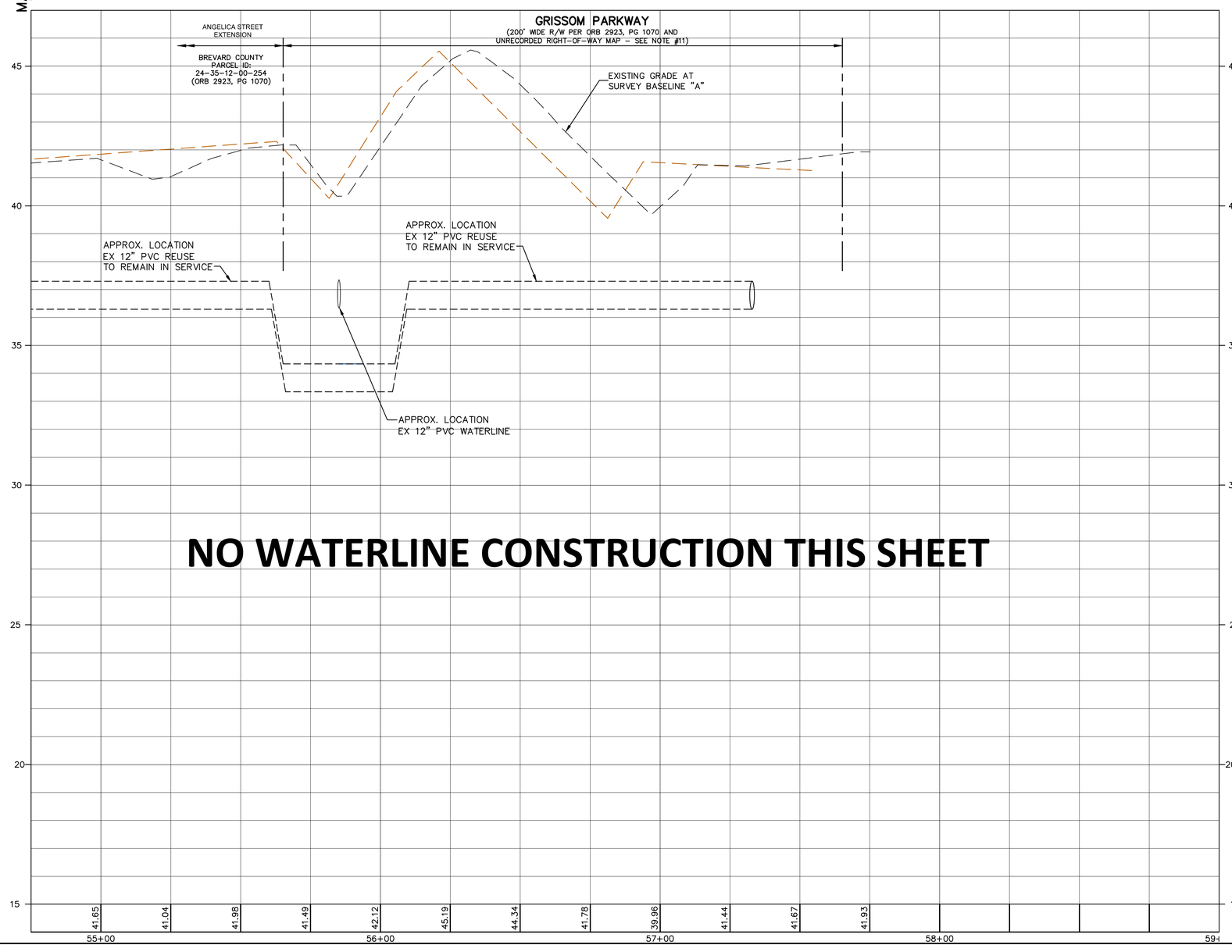
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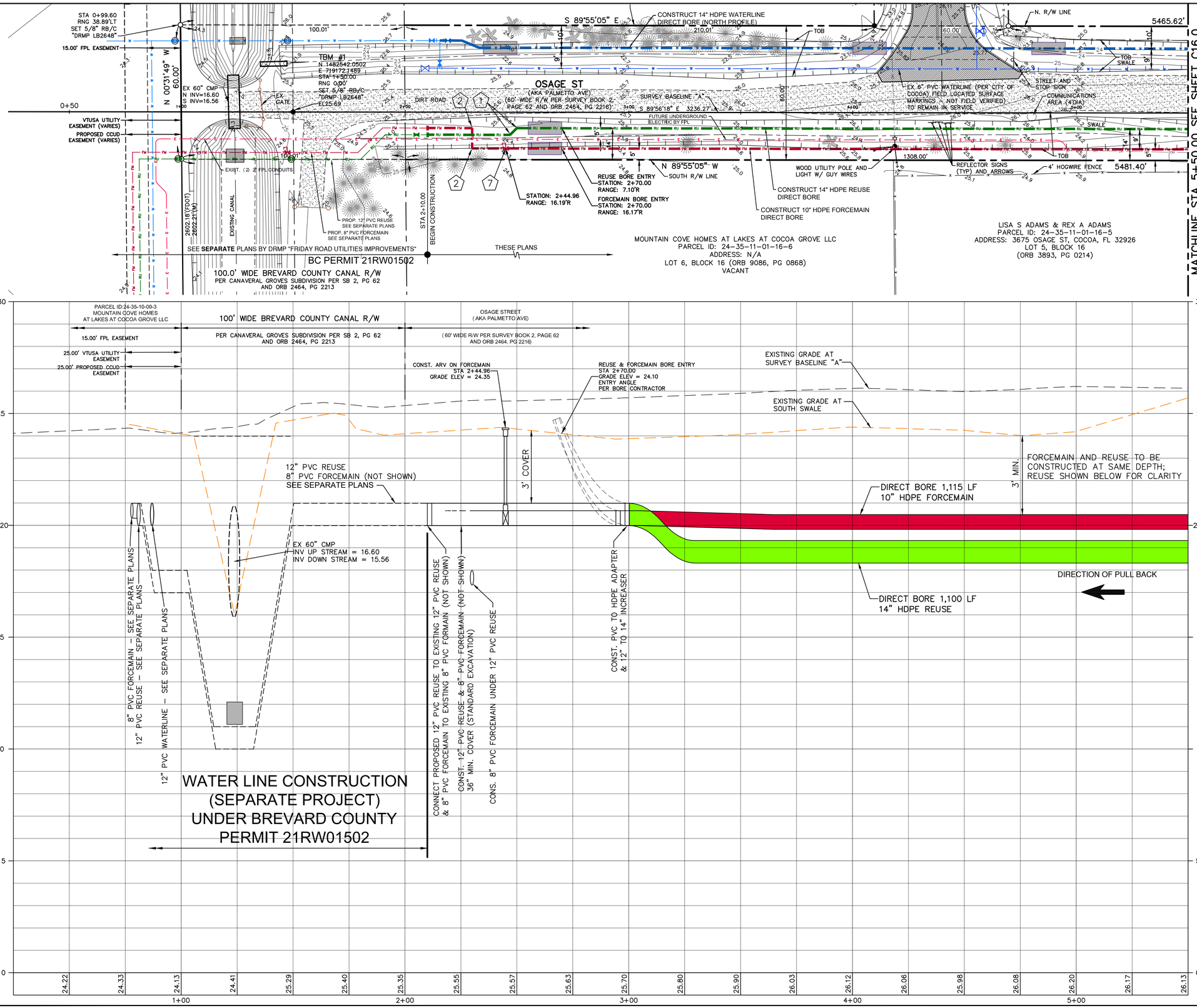
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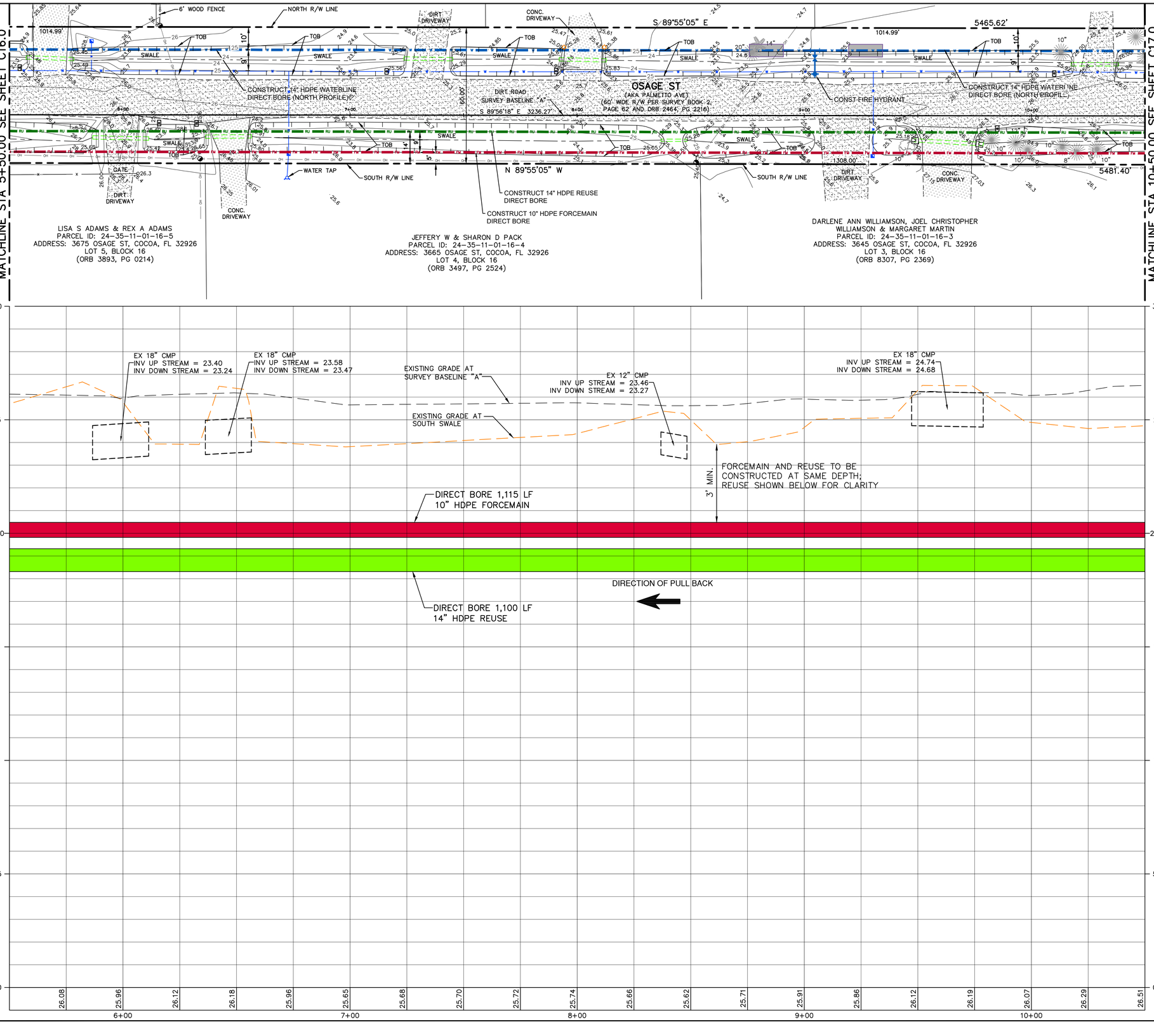
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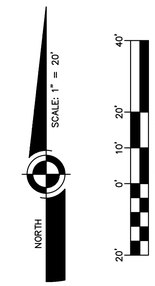
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SEE NORTH PROFILE SHEETS FOR WATERLINE CONSTRUCTION

NOTE:
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NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES SOUTH PROFILE

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Phone:321.453.0010 WWW.DRMP.COM
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JUAN JOSE GONZALEZ LICENSE No. 84538 ★ STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: 1"=20' H, 1"=2' V
DATE: July 22, 2022
SHEET: C 16.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lokes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 15-26 CONST PLAN PROFILE SOUTH.dwg Plotted: Dec 20, 2023 - 3:44pm by gmatchett

MATCHLINE STA 10+50.00 SEE SHEET C16.0

MATCHLINE STA 16+50.00 SEE SHEET C18.0

NORTH R/W LINE

S 89°55'05" E 4" 5465.62'

NORTH R/W LINE

OSAGE ST
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

SURVEY BASELINE "A"

DIRT ROAD

S 89°56'18" E 3236.27'

CONSTRUCT 14" HDPE WATERLINE DIRECT BORE (NORH PROFILE)

CONSTRUCT 14" HDPE REUSE DIRECT BORE (SOUTH PROFILE)

CONSTRUCT 10" HDPE FORCEMAIN DIRECT BORE (SOUTH PROFILE)

END DIRT ROAD

1014.99'

1308.00'

N 89°55'05" W

SOUTH R/W LINE

TOB

SWALE

DIRT DRIVEWAY

GATE

THOMAS L FINDLEY & MARGARET S FINDLEY
PARCEL ID: 24-35-11-01-16-2
ADDRESS: 3635 OSAGE ST, COCOA, FL 32926
LOT 2, BLOCK 16
(ORB 2924, PG 0008)

TANNER C GELL
PARCEL ID: 24-35-11-01-16-1
ADDRESS: 3615 OSAGE ST, COCOA, FL 32926
LOT 1, BLOCK 16
(ORB 8803, PG 0117)
VACANT

TEMP. RECEIVING PIT
(SIZE TO BE DETERMINED BY DIRECT BORE CONTRACTOR)

REUSE BORE EXIT
STATION: 14+30.00
RANGE: 7.51'R

FORCEMAIN BORE EXIT
STATION: 14+30.00
RANGE: 16.58'R

STATION: 14+46.96
RANGE: 16.58'R

FORCEMAIN BORE EXIT
STATION: 14+65.00
RANGE: 16.59'R

1' DIA POSTS AND GATE

8"x6" WOOD POSTS (TYP)

CONST. 14" HDPE WATERLINE DIRECT BORE (NORTH PROFILE)

CONST. 14" HDPE REUSE DIRECT BORE (NORTH PROFILE)

ANGELICA ST
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

DIRT DRIVEWAY

NORTH R/W LINE

1018.00'

END EXISTING WATERLINE TO REMAIN IN SERVICE

595.00'

5481.40'

FM BORE EXIT
STA: 16+17.50
RGE: 16.65'R

FORCEMAIN BORE EXIT
STATION: 16+42.50
RANGE: 16.65'R

ROBERT T & BONITA K SZEWCZAK
PARCEL ID: 24-35-11-01-11-1
ADDRESS: 3599 ANGELICA ST,
COCOA, FL 32926
LOT 1, BLOCK 11
(ORB 4570, PG 2841)

NOTE: PERMANENT WARNING SIGNS SHALL BE INSTALLED AT THE CANAL BANKS PER 62-604.400(2)(J)2., F.A.C.

80.0' WIDE CANAL
PER CANAVERAL GROVES SUBDIVISION PER SURVEY BOOK 2, PG 62 AND ORB 2464, PG 2213

WEST R/W LINE

EAST R/W LINE

TOE OF SLOPE

BERM

CANAL

SCALE: 1" = 20'

NORTH

(IN FEET)
1 INCH = 20 FT.

OSAGE STREET
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

80' WIDE CANAL
PER CANAVERAL GROVES SUBDIVISION PER SURVEY BOOK 2, PG 62 AND ORB 2464, PG 2213

ANGELICA STREET
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

EX 18" CMP
INV UP STREAM = 23.93
INV DOWN STREAM = 23.92

EX 30" ADS
INV UP STREAM = 24.05
INV DOWN STREAM = 23.57

EXISTING GRADE AT SURVEY BASELINE "A"

REUSE & FORCEMAIN BORE ENTRY
STA 14+30.00
GRADE ELEV = 24.95
ENTRY ANGLE
PER BORE CONTRACTOR

CONST. ARV ON FORCEMAIN
STA 14+46.96
GRADE ELEV = 24.98

EXISTING GRADE AT SURVEY BASELINE "A"

FORCEMAIN BORE EXIT
STA 16+43.76
GRADE ELEV = 23.26
ENTRY ANGLE
PER BORE CONTRACTOR

EXISTING GRADE AT SOUTH SWALE

FORCEMAIN BORE EXIT
STA 16+19.50
GRADE ELEV = 23.29
ENTRY ANGLE
PER BORE CONTRACTOR

EXIST. GRADE AT SOUTH SWALE

CONST. PVC TO HDPE ADAPTER & 8" TO 10" INCREASER

3' COVER

FORCEMAIN BORE EXIT
STA 14+65.00
GRADE ELEV = 25.00
ENTRY ANGLE
PER BORE CONTRACTOR

EX 24" CMP
INV UP STREAM = 23.25
INV DOWN STREAM = 23.22

3' MIN.

FORCEMAIN AND REUSE TO BE CONSTRUCTED AT SAME DEPTH; REUSE SHOWN BELOW FOR CLARITY

DIRECT BORE 1,115 LF
10" HDPE FORCEMAIN

DIRECT BORE 1,100 LF
14" HDPE REUSE

DIRECTION OF PULL BACK

CONST. PVC TO HDPE ADAPTER & 12" TO 14" INCREASER

CONSTRUCT 12" PVC REUSE SAME DEPTH AS FORCEMAIN

12" PVC REUSE
SEE NORTH PROFILE FOR CONTINUATION

CONSTRUCT 8" PVC FORCEMAIN
36" MIN. COVER

CONST. 8" 45° BEND

CONST. 8" 22.5° BEND

CONST. PVC TO HDPE ADAPTER & 8" TO 10" INCREASER

BORE PC FORCEMAIN

93' R

BORE PT FORCEMAIN

6' COVER

DIRECTION OF PULL BACK

CONST. PVC TO HDPE ADAPTER & 8" TO 10" INCREASER

CONSTRUCT 8" PVC FORCEMAIN
36" MIN. COVER

DIRECT BORE 115 LF
10" HDPE FORCEMAIN

30
25
20
15
10
5
0

26.18 26.04 26.21 26.26 26.30 26.26 26.24 26.17 26.05 25.93 26.06 26.13 26.19 26.23 26.17 25.81 25.82 25.97 19.78 21.38 26.88 26.86 26.83 26.80

11+00 12+00 13+00 14+00 15+00 16+00

CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
3. PAVEMENT OPEN CUT & REPLACEMENT (SEE DETAIL)
4. 12"x12" TAPPING SLEEVE & 12" TAPPING VALVE
5. 8" GATE VALVE
6. 12" GATE VALVE
7. 2" AIR RELEASE/ VACUUM VALVE
8. 45° BEND
9. 12"x6" TEE, 6" HYDRANT VALVE, AND FIRE HYDRANT
10. 12"x8" TAPPING SLEEVE & 8" TAPPING VALVE
11. 8"x8" TAPPING SLEEVE & 8" TAPPING VALVE

NOTE:
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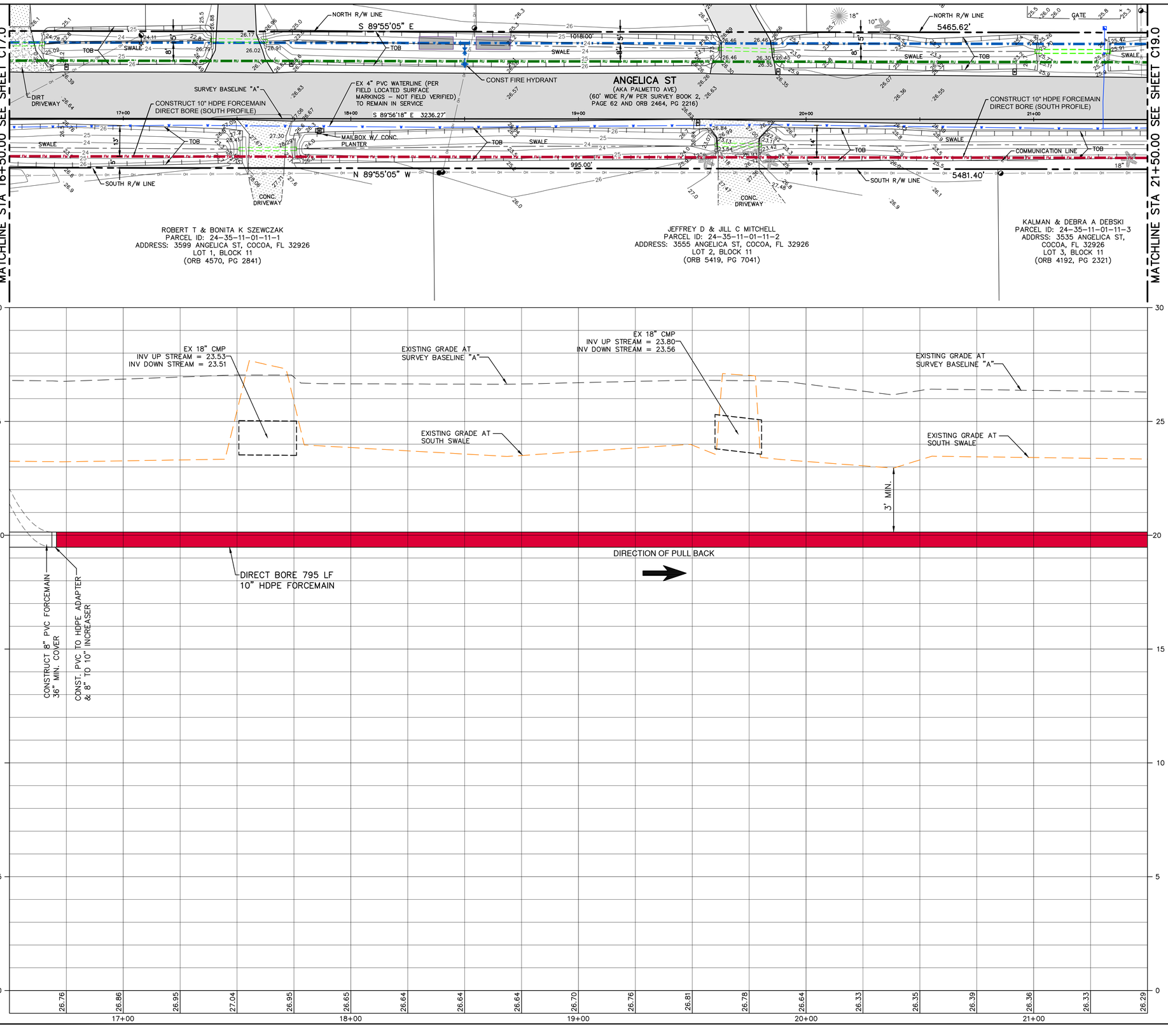
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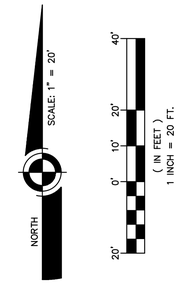
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Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER:	21-0540.002
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DATE:	July 22, 2022
SHEET:	C 17.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 15-26 CONST PLAN PROFILE SOUTH.dwg Plotted: Dec 20, 2023 - 3:44pm by gmatchett





CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
3. PAVEMENT OPEN CUT & REPLACEMENT (SEE DETAIL)
4. 12"x12" TAPPING SLEEVE & 12" TAPPING VALVE
5. 8" GATE VALVE
6. 12" GATE VALVE
7. 2" AIR RELEASE/ VACUUM VALVE
8. 45° BEND
9. 12"x6" TEE, 6" HYDRANT VALVE, AND FIRE HYDRANT
10. 12"x8" TAPPING SLEEVE & 8" TAPPING VALVE
11. 8"x8" TAPPING SLEEVE & 8" TAPPING VALVE

NOTE:
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DSN BY LB | DRN BY LB | CHK BY SN | APPR BY MEP

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MATCHLINE STA 21+50.00 SEE SHEET C18.0

MATCHLINE STA 27+25.00 SEE SHEET C20.0

NORTH R/W LINE
S 89°55'05" E
5465.62'
CONST. 14" HDPE REUSE DIRECT BORE (NORTH PROFILE)
1018.00'
CONST FIRE HYDRANT
ANGELICA ST
(AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)
EX 4" PVC WATERLINE (PER FIELD LOCATED SURFACE MARKINGS — NOT FIELD VERIFIED) TO REMAIN IN SERVICE
SURVEY BASELINE "A"
S 89°56'18" E 3236.27'
TEMP. RECEIVING PIT (SIZE TO BE DETERMINED BY DIRECT BORE CONTRACTOR)
EX 6" PVC REUSE (PER CITY OF COCOA RECORD DRAWINGS — NOT FIELD VERIFIED) TO REMAIN IN SERVICE
2335.31'
2601.78'
TOB
SWALE
SOUTH R/W LINE
N 89°55'05" W
995.00'
STA 23+32.87
RNG 21.57'RT
FND 5/8" RB (NO ID)
CONSTRUCT 10" HDPE FORCEMAIN DIRECT BORE (SOUTH PROFILE)
STATION: 25+02.44
RANGE: 16.96'R
5481.40'
FORCEMAIN BORE ENTRY
STATION: 24+85.00
RANGE: 16.95'R
FORCEMAIN BORE ENTRY
STATION: 25+20.00
RANGE: 16.97'R
DIRT DRIVEWAY
KALMAN & DEBRA A DEBSKI
PARCEL ID: 24-35-11-01-11-3
ADDRSS: 3535 ANGELICA ST, COCOA, FL 32926
LOT 3, BLOCK 11
(ORB 4192, PG 2321)
JAMES & DEBRA BEEKMAN
PARCEL ID: 24-35-11-01-11-4
ADDRESS: 3507 ANGELICA ST, COCOA, FL 32926
LOT 4, BLOCK 11
(ORB 7909, PG 2193)
ALAN SHEPARD AVE
(AKA ALAN SHEPPARD BLVD)
(100' WIDE PUBLIC R/W PER CANAVERAL GROVES SUBDIVISION PER SB 2, PG 62 AND ORB 2464, PG 2216)
100.00'

NORTH
SCALE: 1" = 20'
(IN FEET)
1 INCH = 20 FT.

ANGELICA STREET (AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)
ALAN SHEPARD AVE
(AKA ALAN SHEPPARD BLVD)
(100' WIDE PUBLIC R/W PER CANAVERAL GROVES SUBDIVISION PER SB 2, PG 62 AND ORB 2464, PG 2216)
ROADWAY PAVEMENT ABOVE FORCE MAIN
ANGELICA STREET (AKA PALMETTO AVE)
(60' WIDE R/W PER SURVEY BOOK 2, PAGE 62 AND ORB 2464, PG 2216)

EX 18" RCP
INV UP STREAM = 23.42
INV DOWN STREAM = 23.19
EX 18" RCP
INV UP STREAM = 23.26
INV DOWN STREAM = 23.19
EXISTING GRADE AT SURVEY BASELINE "A"
EXISTING GRADE AT SOUTH SWALE
CONST. ARV ON FORCEMAIN STA 25+02.44 GRADE ELEV = 23.19
FORCEMAIN BORE ENTRY STA 24+85.00 GRADE ELEV = 23.23 ENTRY ANGLE PER BORE CONTRACTOR
FORCEMAIN BORE ENTRY STA 25+20.00 GRADE ELEV = 23.15 ENTRY ANGLE PER BORE CONTRACTOR
EX 24" RCP
INV UP STREAM = 23.21
INV DOWN STREAM = 23.04
3' MIN.
3' COVER
CONST. PVC TO HDPE ADAPTER & 8" TO 10" INCREASER
EX. 24" RCP (DIRECTLY ABOVE PROPOSED FORCE MAIN) INV.=23.08
13.4' (PVMT. TO REAMER)
93' R
DIRECTION OF PULL BACK
DIRECT BORE 795 LF 10" HDPE FORCEMAIN
CONSTRUCT 8" PVC FORCEMAIN 36" MIN. COVER
CONST. PVC TO HDPE PVC ADAPTER & 8" TO 10" INCREASER
BORE PT FORCEMAIN
DIRECT BORE 765 LF 10" HDPE FORCEMAIN
DIRECTION OF PULL BACK

30 25 20 15 10 5 0

26.23 26.16 26.11 26.02 25.99 25.97 25.94 25.93 25.96 25.92 25.84 25.79 25.77 25.74 25.73 25.85 25.97 26.12 26.29 26.30 25.93 25.84 25.93

22+00 23+00 24+00 25+00 26+00 27+00

CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
3. PAVEMENT OPEN CUT & REPLACEMENT (SEE DETAIL)
4. 12"x12" TAPPING SLEEVE & 12" TAPPING VALVE
5. 8" GATE VALVE
6. 12" GATE VALVE
7. 2" AIR RELEASE/ VACUUM VALVE
8. 45° BEND
9. 12"x6" TEE, 6" HYDRANT VALVE, AND FIRE HYDRANT
10. 12"x8" TAPPING SLEEVE & 8" TAPPING VALVE
11. 8"x8" TAPPING SLEEVE & 8" TAPPING VALVE

NOTE:
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APPR BY: MEP | CHK BY: SN | DRN BY: LB | DSN BY: LB

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CITY OF COCOA, FLORIDA

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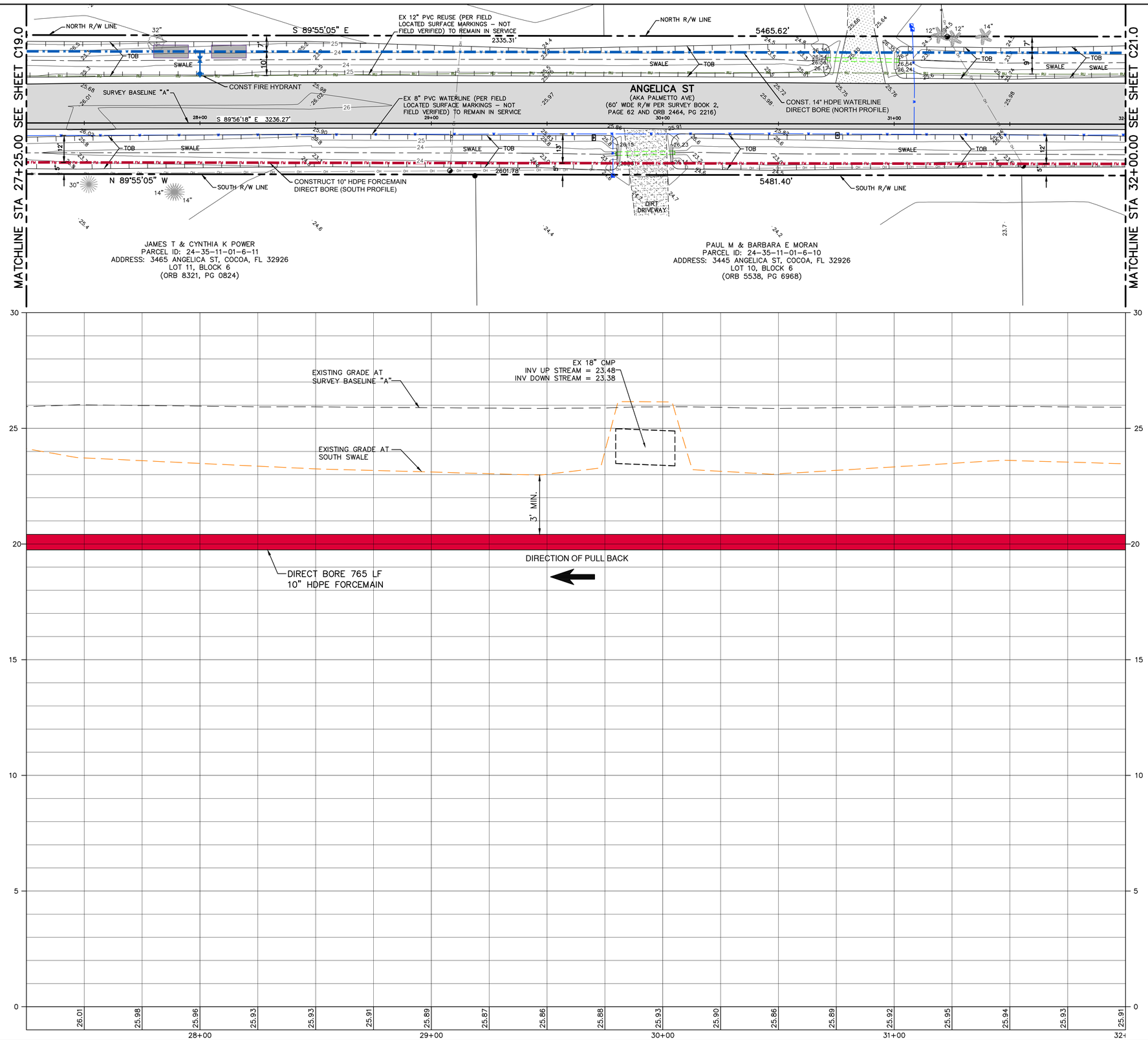
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NORTH

SCALE: 1" = 20'

(IN FEET)
1 INCH = 20 FT.

40'
20'
10'
0'
20'

CONSTRUCTION LEGEND

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2. 90° BEND
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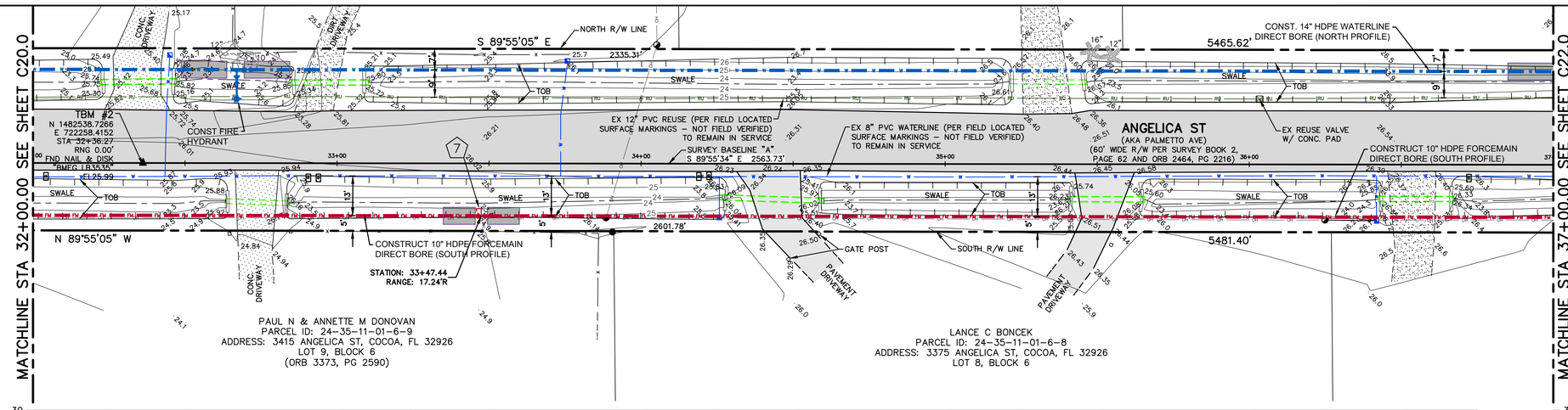
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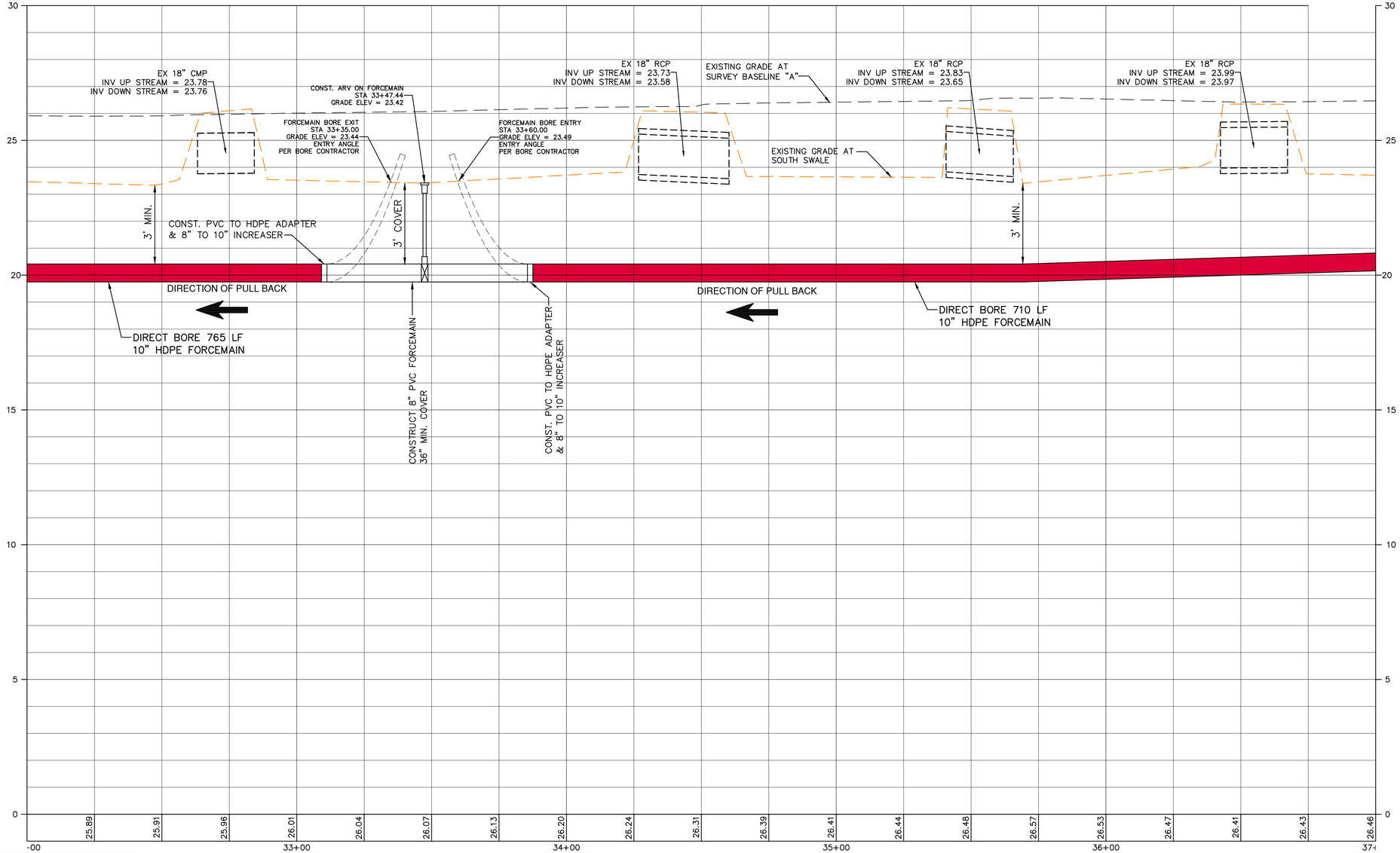
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SCALE: 1" = 20'
NORTH
40' 20' 0' 20'
(IN FEET)
1 INCH = 20 FT.

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CONSTRUCTION PLAN & PROFILES SOUTH PROFILE

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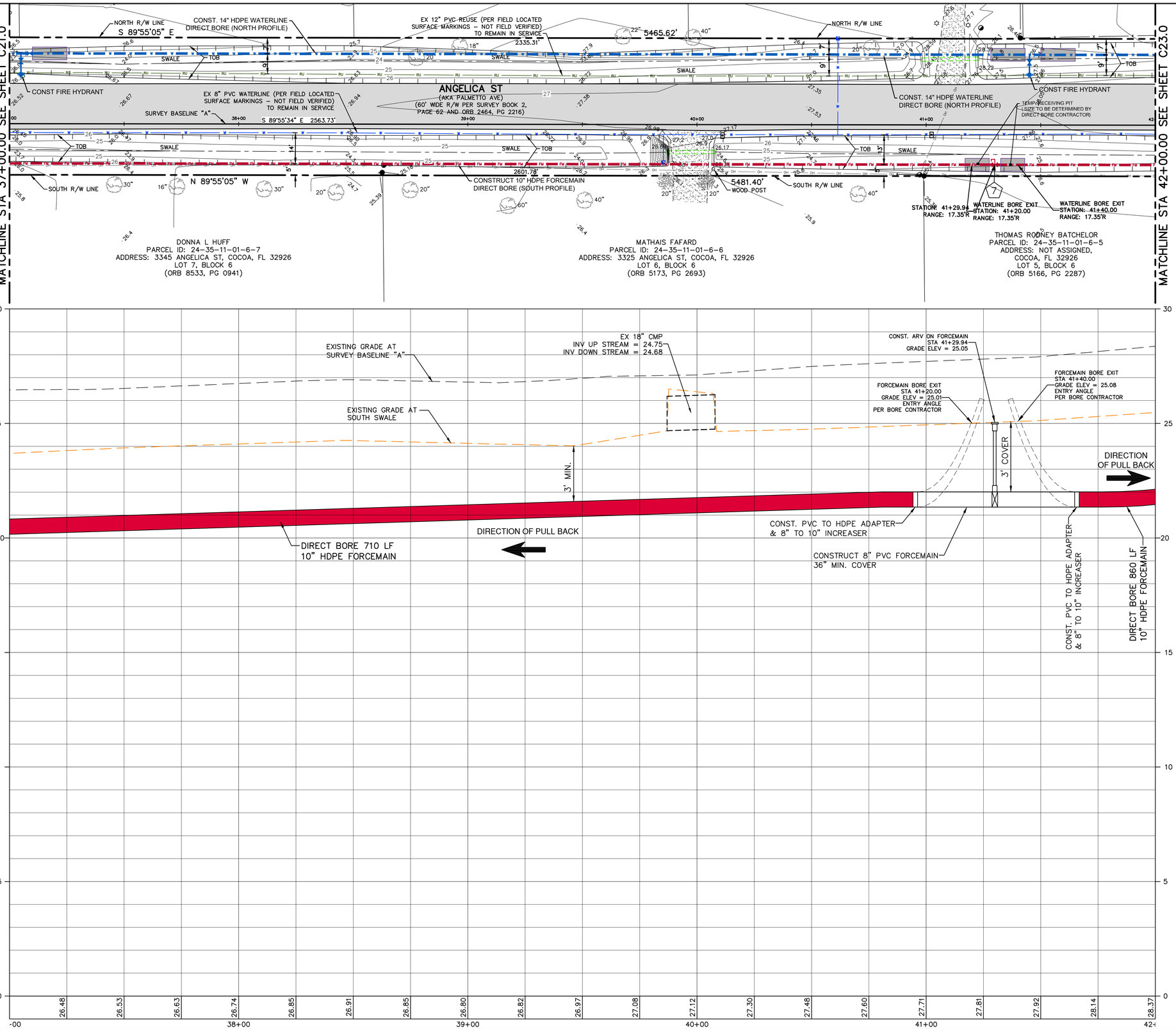
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Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: 1"=20' H, 1"=2' V
DATE: July 22, 2022
SHEET: C 21.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 15-26 CONST PLAN PROFILE SOUTH.dwg Plotted: Dec 20, 2023 - 3:45pm by gmatchett



NORTH

SCALE: 1" = 20'

(IN FEET)
1 INCH = 20 FT.

CONSTRUCTION LEGEND

1. 22.5° BEND
2. 90° BEND
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NOTE:
SEE NORTH PROFILE SHEETS FOR WATERLINE CONSTRUCTION

NOTE:
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NO.	DATE	REVISION DESCRIPTION	BY
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6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

APPR BY: MEP | CHK BY: SN | DRN BY: LB | DSN BY: LB

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

CONSTRUCTION PLAN & PROFILES SOUTH PROFILE

DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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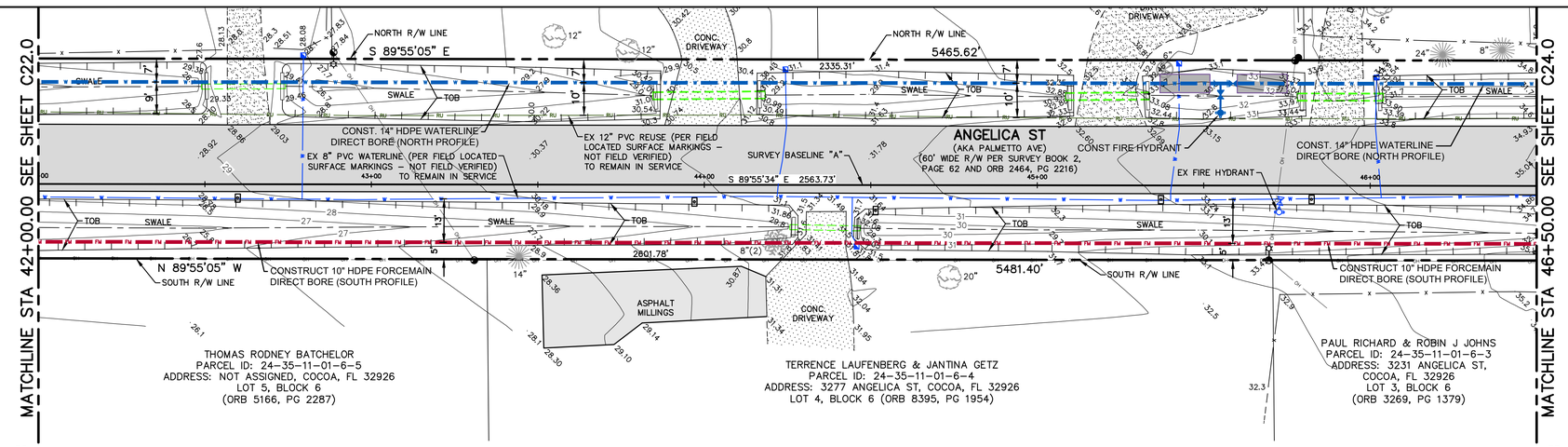
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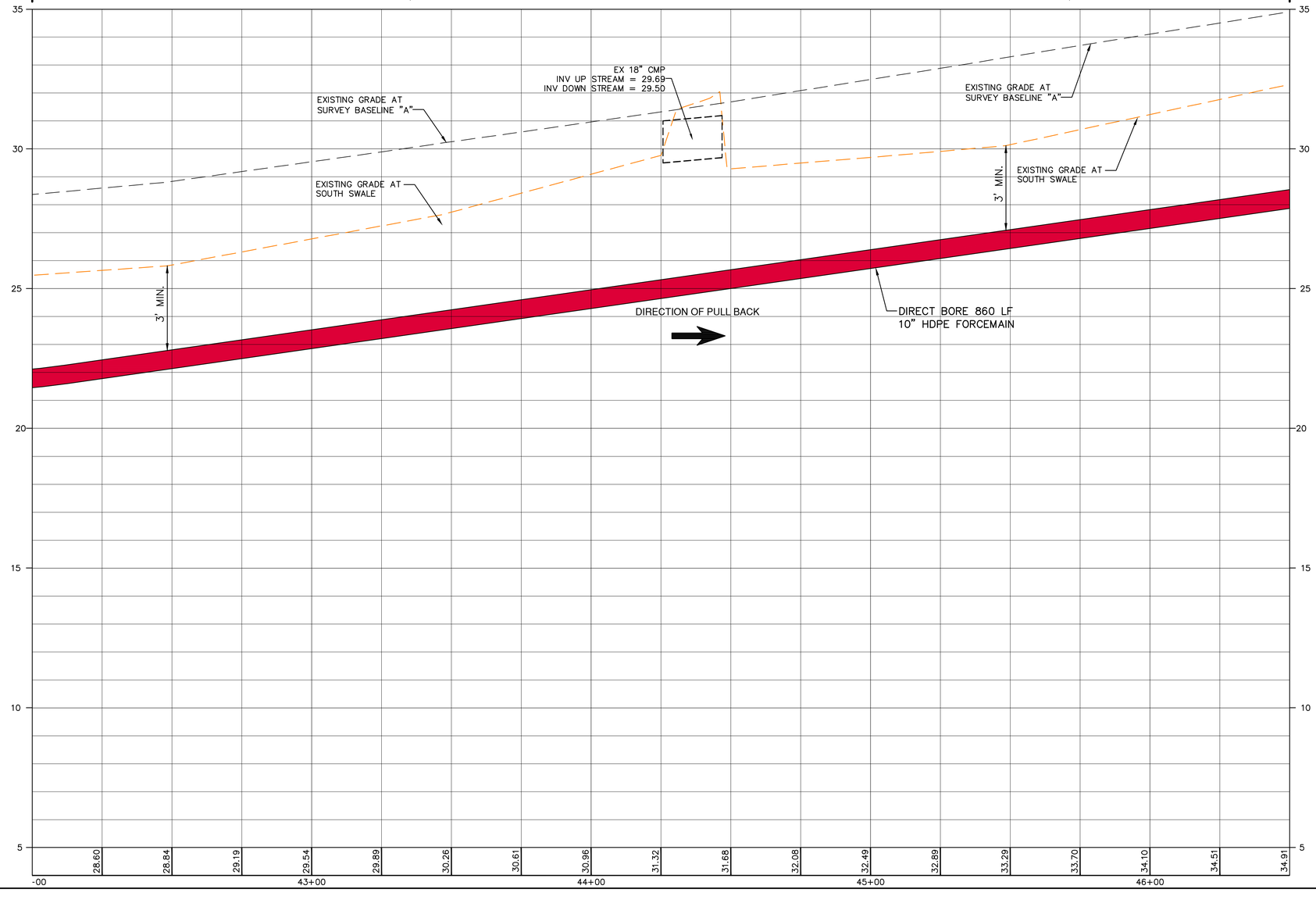
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DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

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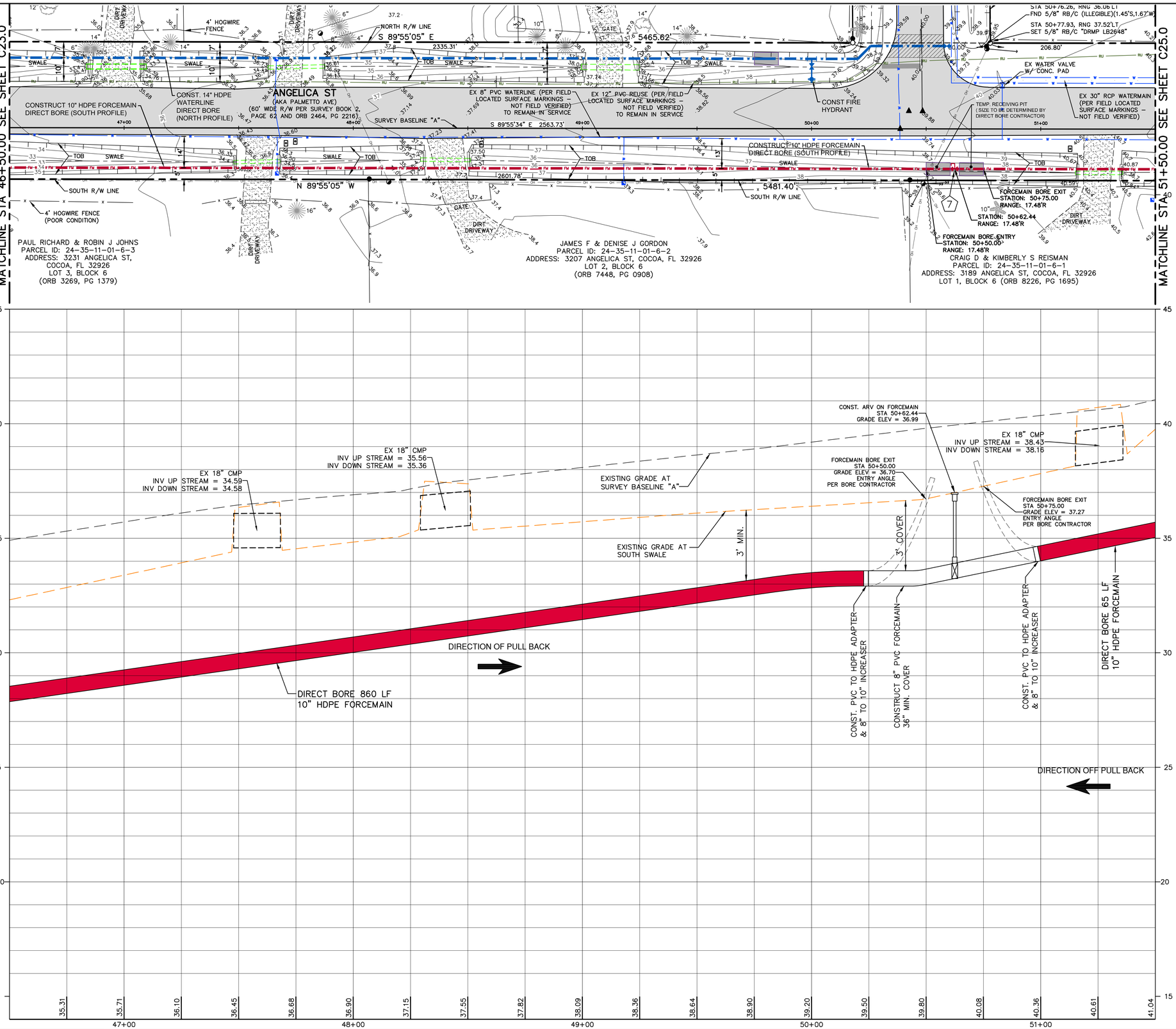
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DSN BY LB | DRN BY LB | CHK BY SN | APPR BY MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

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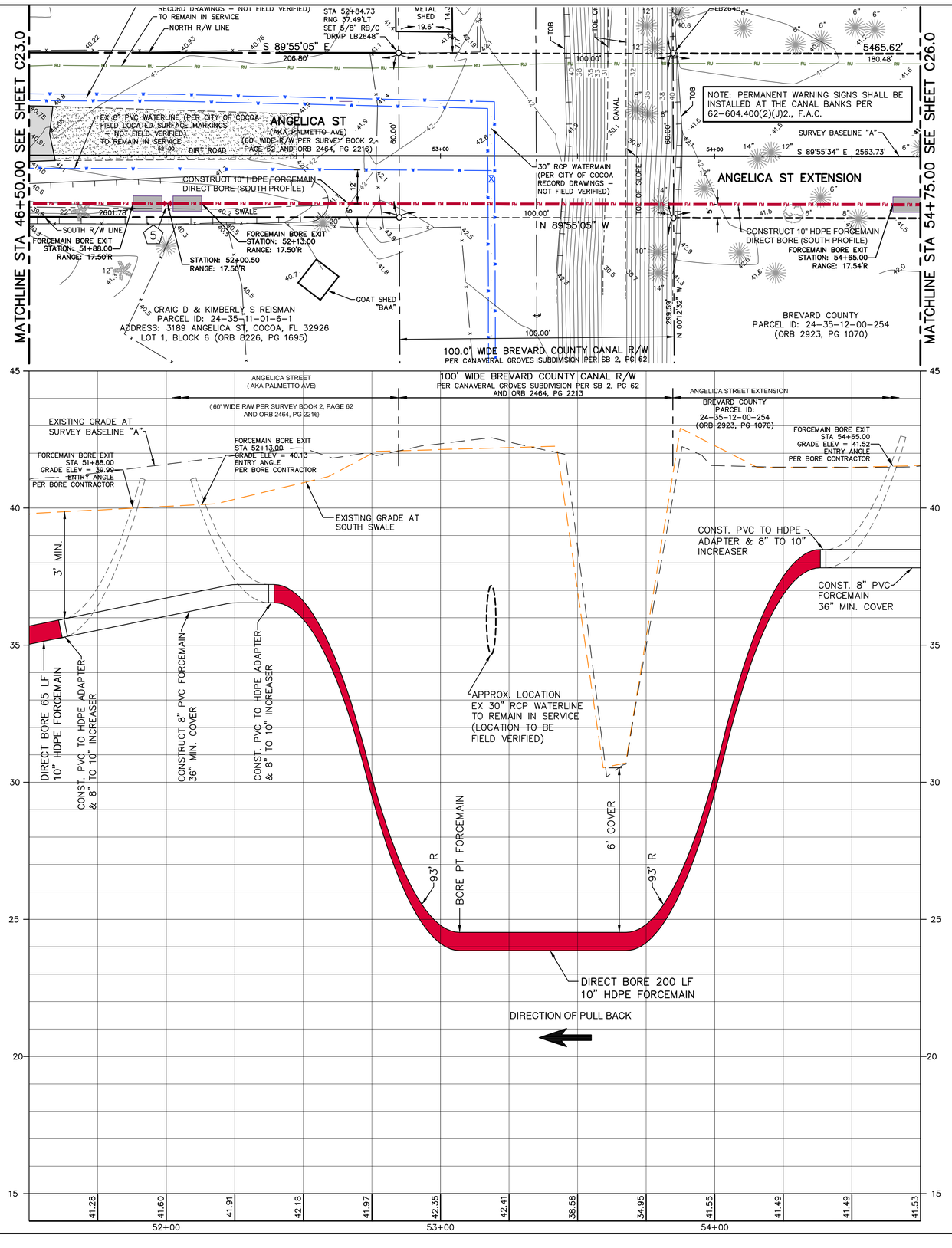
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CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

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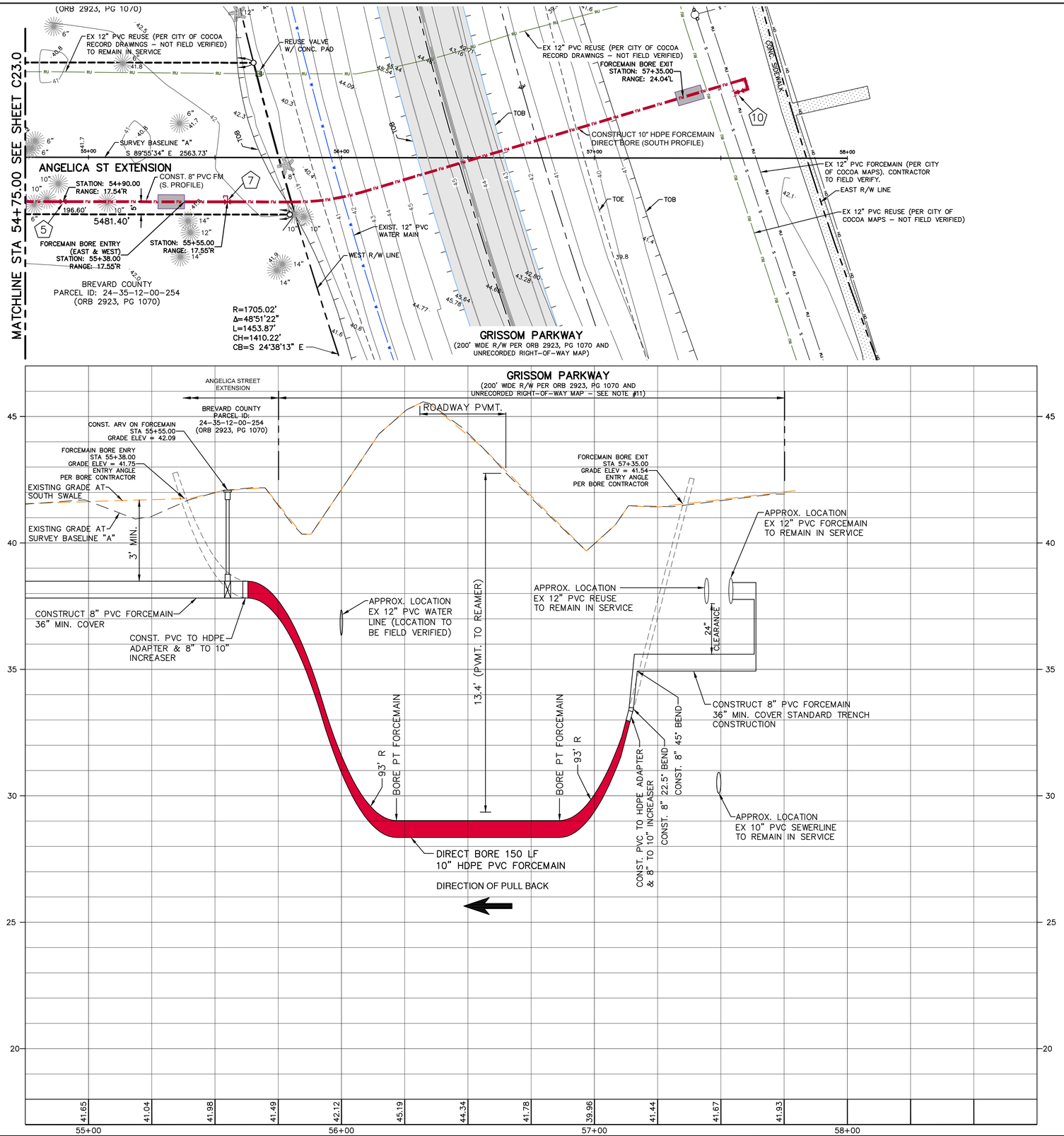
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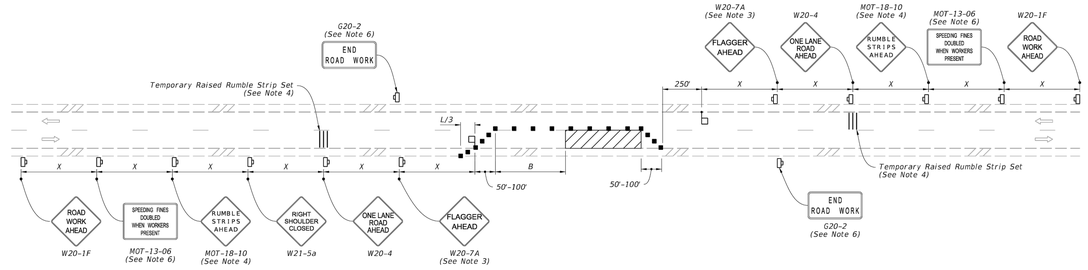
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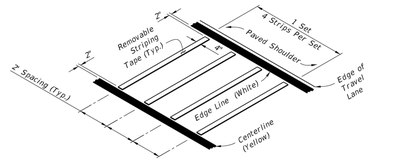
NOTES:

1. This Index applies to Two-Lane, Two-Way Roadways with work within the traveled way.
2. L = Taper Length
   B = Buffer Length
   X = Work Zone Sign Spacing
   See Index 102-600 for "L", "B", "X" and channelizing device spacing values.
3. Optionally, use "Flagger Ahead" sign with symbol (W20-7) instead of "Flagger Ahead" sign with text (W20-7A).
4. Use temporary raised rumble strips when the existing posted speed is 55 mph or greater and the work duration is greater than 60 minutes. If temporary raised rumble strips are not used, omit "Rumble Strips Ahead" signs (M0T-18-10) and associated work zone sign spacing.
5. Additional one-way control may be provided by the following means:
   a. Flag-carrying vehicle
   b. Official vehicle
   c. Pilot vehicles
   d. Traffic signals

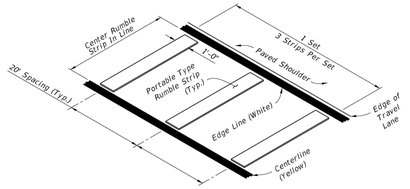
   When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
6. The "Speeding Fines Doubled When Workers Present" signs (M0T-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign spacing, may be omitted when the work operation will be in place for 24 hours or less.
7. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specification Sections 102, 990 and the APL vendor drawings.
8. Railroad Crossings:
   a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
   b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification and Direction of Traffic



OPTION - 1
REMOVABLE STRIPING TYPE

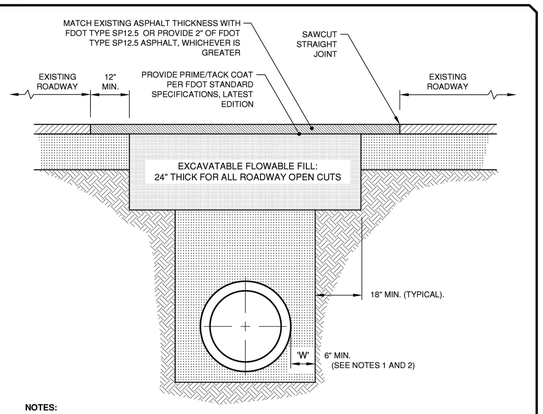


OPTION - 2
PORTABLE TYPE

RUMBLE STRIP SETS

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX	SHEET
11/01/21						102-603	1 of 2

9/21/2021 2:41:17 PM



NOTES:

1. "W" SHALL BE A MINIMUM OF 6" WIDE AND OF SUFFICIENT WIDTH TO ACCOMMODATE NECESSARY COMPACTION EFFORTS. IN THE EVENT THE REQUIRED MINIMUM DENSITY IS NOT ACHIEVED, LOOSE MATERIAL SHALL BE REMOVED, REPLACED AND COMPACTED TO THE REQUIRED DENSITY, OR REPLACED WITH FULL DEPTH FLOWABLE FILL. DENSITY TESTS BELOW THE SPRING LINE OF THE PIPE ARE REQUIRED IN ADDITION TO OTHER TESTING REQUIREMENTS. (IN THE EVENT FULL DEPTH FLOWABLE FILL IS USED AS BACKFILL, DENSITY REQUIREMENTS ARE WAIVED.)
2. CONTRACTOR SHALL EXCAVATE BOTTOM OF TRENCH TO ALLOW FOR BELL SECTION OF PIPE.
3. MINIMUM ALLOWABLE BACKFILL DENSITY SHALL BE 98% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE PER AASHTO T-180. REFER TO EXHIBIT-27 FOR STORMWATER PIPE BACKFILL REQUIREMENTS.
4. FLOWABLE FILL SHALL COMPLY WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 121, LATEST EDITION.
5. ALL OPEN CUTS SHALL HAVE FLOWABLE FILL AND TEMPORARY ASPHALT INSTALLED WITHIN 2 DAYS OF EXCAVATION. PERMANENT ASPHALT INCLUDING MILLING, IF NEEDED, SHALL BE COMPLETED WITHIN 30 DAYS OF EXCAVATION.
6. THESE ARE MINIMUM REQUIREMENTS. ADDITIONAL RESTRICTIONS MAY BE NECESSARY ON A CASE BY CASE BASIS.

ASPHALT ROADWAY OPEN CUT - PAVEMENT REMOVAL AND REPLACEMENT

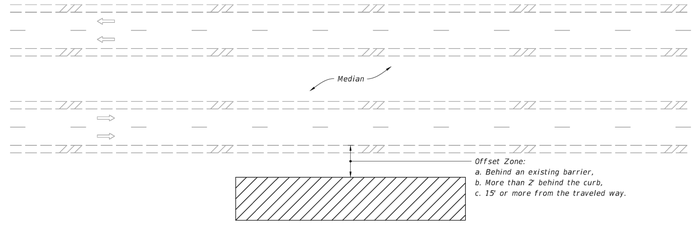
	BREVARD COUNTY LAND DEVELOPMENT 2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940	EXHIBIT - 25B	DATE: JUNE-2017

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DRN BY	LB		
DSN BY	LB		

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

DETAILS

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MULTILANE ROADWAY SHOWN, TWO-LANE ROADWAY SIMILAR

NOTES:

1. This Index applies to Two-Lane, Two-Way and Multilane Roadways, including Medians of divided roadways, with work beyond the shoulder.
2. Use Index 102-602 when the work operation (excluding establishing and terminating the work area) requires that two or more work vehicles cross the Offset Zone in any one hour period.
3. Use Index 102-660 when Work Area encroaches a Sidewalk.

SYMBOLS:

- Work Area
- Lane Identification and Direction of Traffic

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	TWO-LANE AND MULTILANE ROADWAY, WORK BEYOND THE SHOULDER	INDEX	SHEET
11/01/20						102-601	1 of 1

9/21/2021 12:16:02 PM

STREET NAME SIGN NOTES:

1. SIGNS IN PUBLIC R.O.W. SHALL BE GREEN WITH 5/8" WHITE BORDER AND WHITE LETTERS AND NUMBERS.
2. SIGNS IN PRIVATE R.O.W. SHALL BE WHITE WITH 5/8" BLACK BORDER AND BLACK LETTERS AND NUMBERS.
3. STREET NAME BLADES SHALL BE RIVETED TOGETHER AT EACH CORNER WITH 3/16" SMALL FLANGE AVEX RIVETS. ATTACH BLADES TO POST WITH CHERRY-MATE ALUMINUM RIVETS, # BALMBP34, OR 5/16" X 2-1/2" S.S. BOLTS, 1-1/4" X 5/16" S.S. FENDER WASHERS, W/ S.S. STOP HEX NUT HAVING NYLON INSERTS (LOCK NUTS).

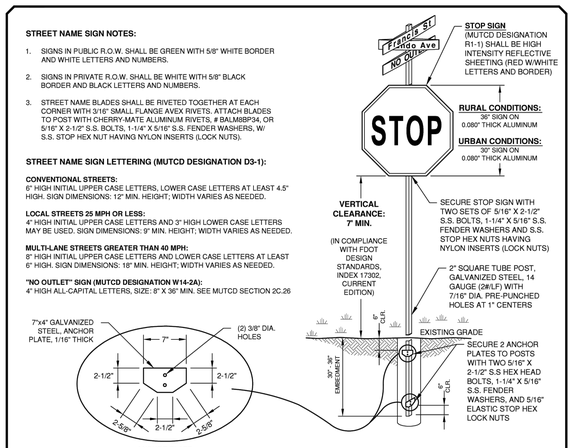
STREET NAME SIGN LETTERING (MUTCD DESIGNATION D3-1):

CONVENTIONAL STREETS:
6" HIGH INITIAL UPPER CASE LETTERS, LOWER CASE LETTERS AT LEAST 4.5" HIGH. SIGN DIMENSIONS: 12" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

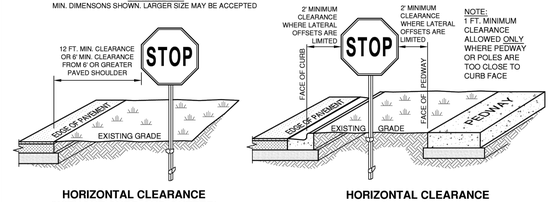
LOCAL STREETS 25 MPH OR LESS:
4" HIGH INITIAL UPPER CASE LETTERS AND 3" HIGH LOWER CASE LETTERS MAY BE USED. SIGN DIMENSIONS: 9" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

MULTI-LANE STREETS GREATER THAN 40 MPH:
8" HIGH INITIAL UPPER CASE LETTERS AND LOWER CASE LETTERS AT LEAST 6" HIGH. SIGN DIMENSIONS: 18" MIN. HEIGHT; WIDTH VARIES AS NEEDED.

"NO OUTLET" SIGN (MUTCD DESIGNATION W14-2A):
4" HIGH ALL-CAPITAL LETTERS, SIZE: 8" X 36" MIN. SEE MUTCD SECTION 2C.26



ANCHOR PLATE
MIN. DIMENSONS SHOWN. LARGER SIZE MAY BE ACCEPTED



HORIZONTAL CLEARANCE (WITHOUT CURB AND GUTTER)

HORIZONTAL CLEARANCE (WITH CURB AND GUTTER)

STOP SIGN AND STREET MARKER DETAILS

	BREVARD COUNTY LAND DEVELOPMENT 2725 JUDGE FRAN JAMIESON WAY, VIERA, FL 32940	EXHIBIT - 26	DATE: OCT-2014

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

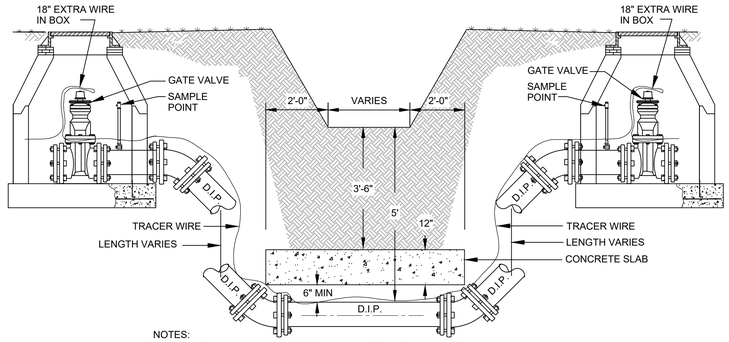
PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: C 27.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 27-34 DETAILS.dwg Plotted: Dec 20, 2023 - 3:47pm by gmatchett

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)								
TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90°BEND	21	29	38	45	53	66	79	91
45°BEND	9	12	16	19	22	45	33	38
22-1/2°BEND	5	6	8	9	11	14	16	19
11-1/4°BEND	3	3	4	5	6	7	8	9
PLUG, BRANCH OF TEE, VALVE	58	82	107	128	151	193	234	273

NOTES:
1. FITTINGS SHALL BE RESTRAINED JOINTS.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. ALL LINE VALVES AND THROUGH RUN OF TEES SHALL BE RESTRAINED.
5. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
   WORKING PRESSURE: 150 PSI
   SOIL DESIGNATION: SM (SAND SILT)
   LAYING CONDITIONS: 3
6. TABLE IS FOR PVC AND WRAPPED DUCTILE IRON.

RESTRAINED PIPE TABLE
WATER & RECLAIMED WATER MAINS
NTS DATE: NOV. 2022



NOTES:
1. Main shall be restrained joint D.I.P. and extend 5' on either side of the drainage ditch.
2. Concrete slab shall be 2' wider than the pipe O.D. and a minimum width of 6 feet.
3. Concrete shall be 2500 PSI compressive strength with fibermesh reinforcement.
4. Per FDEP, isolation valve closest to the water source will have 2 permanent taps and will be in a manhole.

CANAL OR DRAINAGE DITCH CROSSING
NTS DATE: NOV. 2022

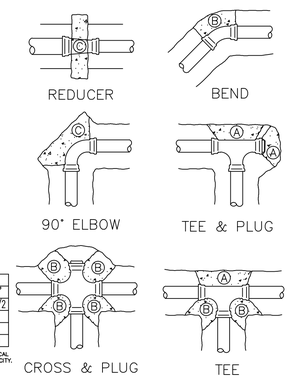
THRUST BLOCK NOTES

1.) WRAP ALL FITTINGS WITH POLYETHYLENE FILM BEFORE POURING THRUST BLOCK, MAKING CERTAIN TO KEEP CONCRETE AWAY FROM ALL BOLTS, GLANDS, AND FLANGES.
2.) THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.
3.) REQUIRED VOLUMES OF BEARING AREAS TO BE AS SHOWN IN CHART. ADJUSTMENTS, IF NEEDED, WILL BE ALLOWED TO CONFORM TO TEST PRESSURE AND ALLOWABLE SOIL BEARING STRESS AS SHOWN IN SPECIFICATIONS.
4.) BEARING AREA FOR TRANSIT BLOCKS ON HORIZONTAL BENDS IS BASED ON A TEST PRESSURE OF 150 P.S.I. AND SOIL BEARING STRESS OF 2,000 P.S.F. THE DEPTH TO THE THRUST BLOCK BASE TO BE EQUAL TO OR GREATER THAN TWICE THE HEIGHT. (EXAMPLE: IF BLOCK IS 2' THICK, THE BASE IS TO BE NO GREATER THAN 4' BELOW GRADE.)
5.) VERTICAL BEND THRUST BLOCKS TO BE THE SAME AS HORIZONTAL BENDS.
6.) BEARING AREA OF THRUST BLOCK TO BE NOT LESS THAN ONE SQUARE FOOT.

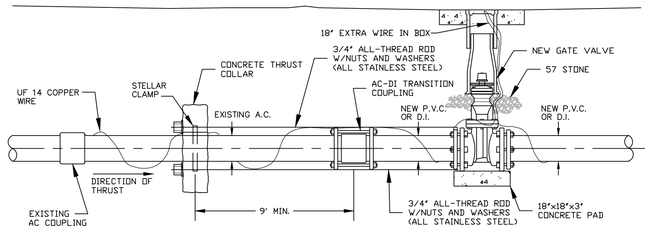
MINIMUM BEARING AREA (SQ. FT.)

LETTER	PIPE SIZE						
	4"	6"	8"	10"	12"	16"	20"
A	1-1/2	2-3/4	5	7-1/4	10-1/4	18	27-1/2
B(22-1/2)	3/4	1	2	3	4	7	11
B (45°)	1	2-1/4	3-3/4	5-1/2	8	13-3/4	21
C	2	4	7	11-1/4	14-1/2	25-1/4	39

THE FIGURES IN THIS TABLE REPRESENT AREA OF CONCRETE BLOCKING AGAINST THE VERTICAL TRENCH WALL OF UNDISTURBED EARTH IN SQUARE FEET AT 2000 P.S.F. SOIL BEARING CAPACITY.

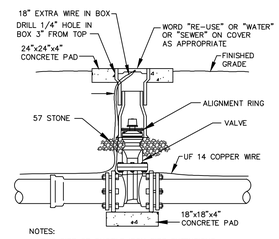


THRUST BLOCK NOTES & DETAILS
NTS DATE: NOV. 2022



NOTE:
IF A.C. COUPLING IS LESS THAN 9 FEET FROM TIE-IN, THEN PLACE THE CONCRETE COLLAR BEHIND THE EXISTING COUPLING. REFER TO "THRUST COLLAR WATER & RECLAIMED" DETAIL.

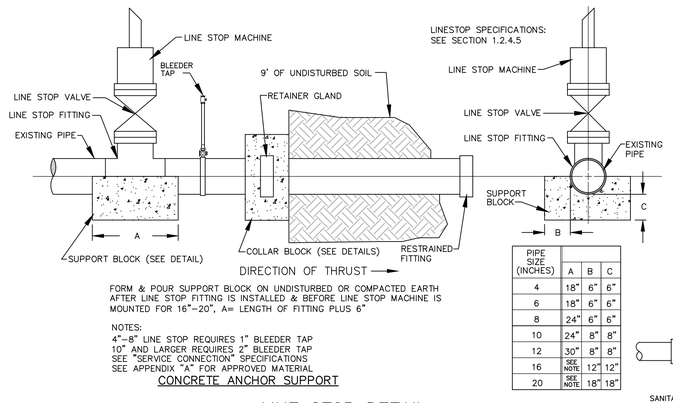
A.C. PIPE TIE-IN
NTS DATE: NOV. 2022



NOTES:
1. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. IF THE DEPTH OF THE VALVE NUT IS GREATER THAN 48" BELOW GRADE, OR 30" BELOW GRADE AND UNDER THE WATER TABLE, A VALVE EXTENTION WILL BE REQUIRED. SEE VALVE EXTENSION STEM DETAIL.
3. PROVIDE A PLASTIC DEBRIS SHIELD/ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 24" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.

THIS DETAIL APPLIES TO ALL BURIED VALVES.

GATE VALVE & VALVE BOX
NTS DATE: NOV. 2022



LINESTOP SPECIFICATIONS: SEE SECTION 1.2.4.5

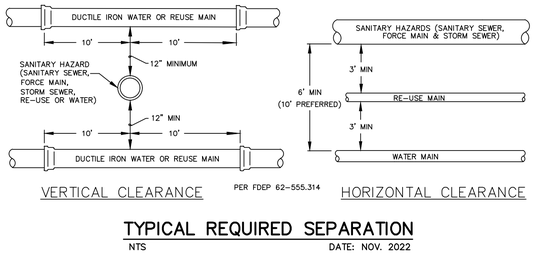
PIPE SIZE (INCHES)	A	B	C
4	18"	6"	6"
6	18"	6"	6"
8	24"	6"	6"
10	24"	8"	8"
12	30"	8"	8"
16	SEE NOTE	12"	12"
20	SEE NOTE	18"	18"

FORM & POUR SUPPORT BLOCK ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED & BEFORE LINE STOP MACHINE IS MOUNTED FOR 16"-20", A= LENGTH OF FITTING PLUS 6"

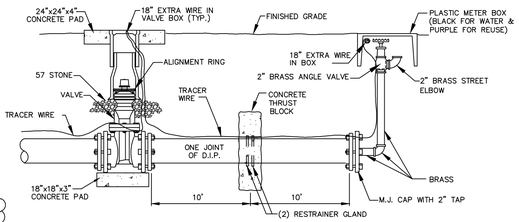
NOTES:
4"-8" LINE STOP REQUIRES 1" BLEEDER TAP
10" AND LARGER REQUIRES 2" BLEEDER TAP
SEE "SERVICE CONNECTION" SPECIFICATIONS
SEE APPENDIX "A" FOR APPROVED MATERIAL

CONCRETE ANCHOR SUPPORT

LINE STOP DETAIL
NTS DATE: NOV. 2022



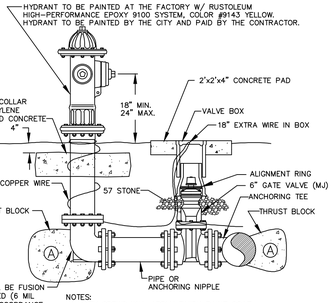
TYPICAL REQUIRED SEPARATION
NTS DATE: NOV. 2022



NOTE: PERMANENT BLOW-OFFS DO NOT REQUIRE A JOINT OF D.I.P. OR A VALVE. ALSO ALL BLOW-OFFS NEED TO BE PLACED AT PROPERTY LINES.

PROPER AMOUNT OF RESTRAINED PIPE UPSTREAM OF VALVE MAY BE USED IN LIEU OF THRUST COLLAR.

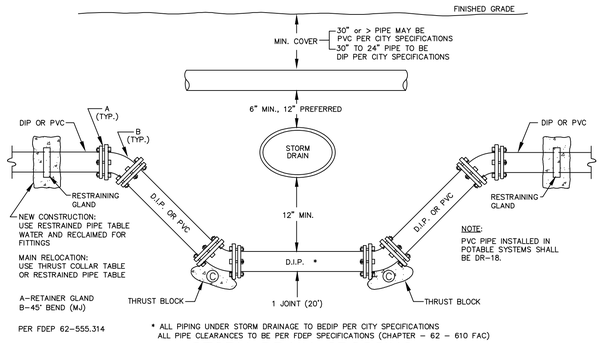
2" BLOW-OFF (10" WATERMAIN & SMALLER)
NTS DATE: NOV. 2022



NOTES:
1. CITY CREWS WILL APPLY FINISH PAINT COAT.
2. HYDRANT RISERS WILL NOT BE PERMITTED.
3. FIRE HYDRANT WILL HAVE 18-8 TYPE 304 STAINLESS STEEL BOLTS AND NUTS (BONNET, TRAFFIC FLANGE AND SHOE).
4. SEE "FIRE HYDRANTS" SPECIFICATIONS.
5. PAINT PAID BY THE CONTRACTOR.

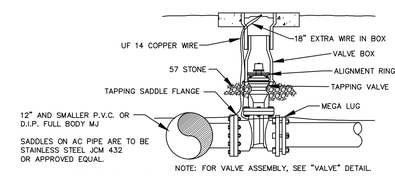
(A) REFER TO THRUST BLOCK NOTES AND DETAILS.

FIRE HYDRANT ASSEMBLY
NTS DATE: NOV. 2022



* ALL PIPING UNDER STORM DRAINAGE TO BEDIP PER CITY SPECIFICATIONS
ALL PIPE CLEARANCES TO BE PER FDEP SPECIFICATIONS (CHAPTER - 62 - 610 FAC)

STORM DRAIN CROSSING
NTS DATE: NOV. 2022



TAPPING SADDLE AND VALVE
NTS DATE: NOV. 2022

NOTES:
1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/DocumentCenter/View/15072/Cocoa-Utilities-Technical-Provisions-2022-Edition.

City of Cocoa, Florida
Utilities Department
Updated November 2022

NO.	DATE	REVISION DESCRIPTION	APPR BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB
DSN BY	LB	DRN BY	LB	CHK BY	SN	APPR BY	MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD WATER DETAILS

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

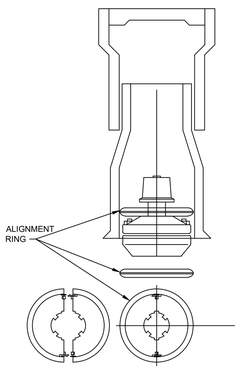
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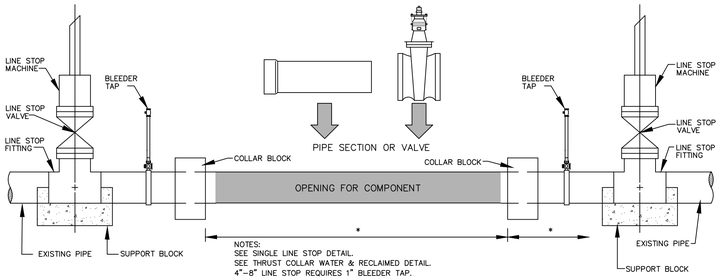
O:\merritt_island\Dwg\eng 4000-4999\4124O1 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 27-34 DETAILS.dwg Plotted: Dec 20, 2023 - 3:47pm by gmatchett



NOTES:
1. FOR ALL VALVES REGARDLESS OF SIZE & DEPTH.

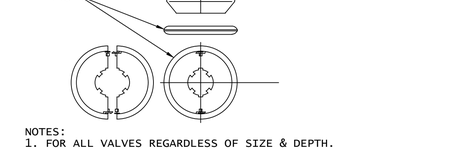
ALIGNMENT RING

NTS DATE: NOV. 2022



DOUBLE LINE STOP DETAIL

NTS DATE: NOV. 2022



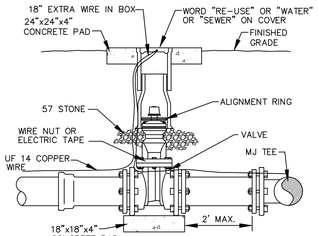
SIZE	MIN. COVER OF PIPE	CONCRETE PAD SIZE FROM LOWEST POINT OF FITTING
4"	24"	16"x16"x6"
6"	26"	18"x18"x6"
8"	30"	20"x20"x6"
*10"	36"	24"x24"x8"
*12"	40"	30"x30"x8"

* NOTE: 10" AND 12" REQUIRE TWO CLAMPS AND FOUR RODS PER SIDE.

VALVES INSTALLED PER MANUFACTURER'S RECOMMENDATION ON DIP AND PVC.

VALVE INSERT FOR A.C. PIPE

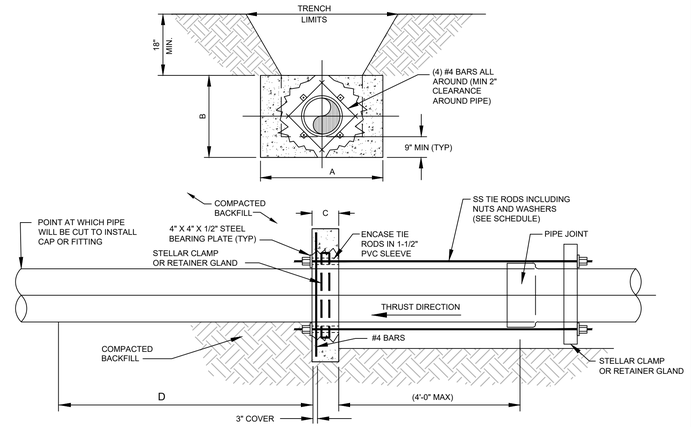
NTS DATE: NOV. 2022



NOTE: PROPER SIZE VALVE BOX SHALL BE INSTALLED. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.

GATE VALVE AND FITTING

NTS DATE: NOV. 2022



SCHEDULE OF DIMENSIONS AND MATERIALS						
PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA. (in.)	NO.
4	2.0	2.0	1.0	2.0	3/4	2
6	2.0	2.0	1.0	4.0	3/4	2
8	3.0	3.0	1.0	5.0	3/4	2
10	4.0	3.0	1.0	8.0	3/4	4
12	5.0	3.0	1.0	10.0	3/4	4
16	*	*	*	*	*	*
20	*	*	*	*	*	*
24	*	*	*	*	*	*

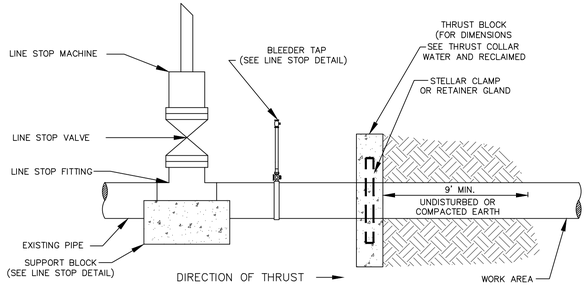
NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING. SOIL DENSITY ASSUMED 120 PCF. SOIL COHESION 20°.

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 PSI.
7. TIE RODS TO BE 3/4" SS 18-8 TYPE 304.

* TO BE DESIGNED BY ENGINEER OF RECORD.

THRUST COLLAR – WATER AND RECLAIMED

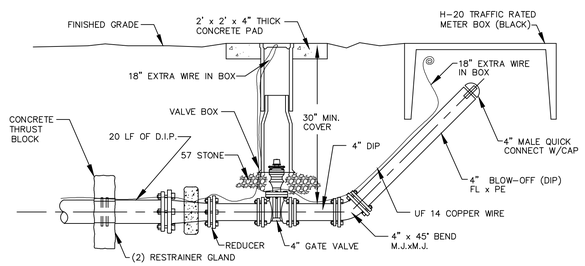
NTS DATE: NOV. 2022



FORM & POUR SUPPORT BLOCK AND THRUST COLLAR ON UNDISTURBED OR COMPACTED EARTH AFTER LINE STOP FITTING IS INSTALLED & BEFORE LINE STOP MACHINE IS MOUNTED.

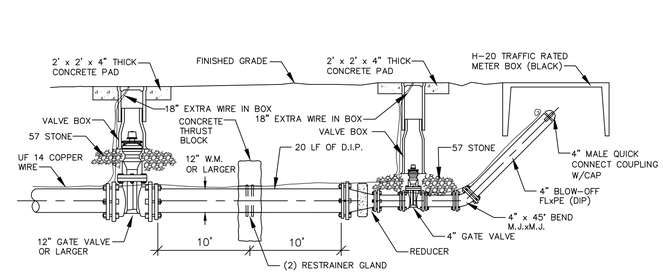
LINE STOP W/THRUST COLLAR

NTS DATE: NOV. 2022



4" PERMANENT BLOW-OFF FOR 12" WATER MAINS & LARGER

NTS DATE: NOV. 2022



4" TEMPORARY BLOW-OFF FOR 12" WATER MAINS & LARGER

NTS DATE: NOV. 2022

NOTES:
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BY	DATE	REVISION DESCRIPTION

DSN BY	DRN BY	CHK BY	APPR BY
LB	LB	SN	MEP

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CITY OF COCOA, FLORIDA

STANDARD WATER DETAILS

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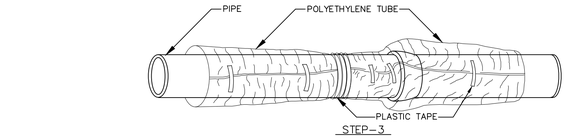
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FIELD INSTALLATION–POLYETHYLENE WRAP

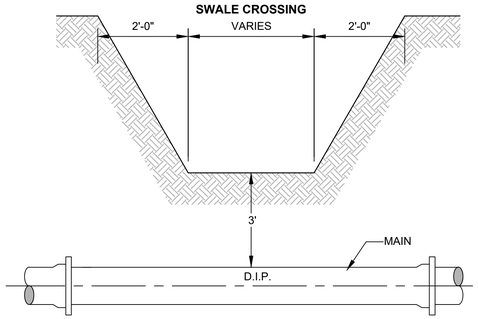
STEP–1 PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH.

STEP–2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF TWO–INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END.

STEP–3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROXIMATELY THREE TO FIVE FOOT INTERVALS.

POLYETHYLENE WRAP

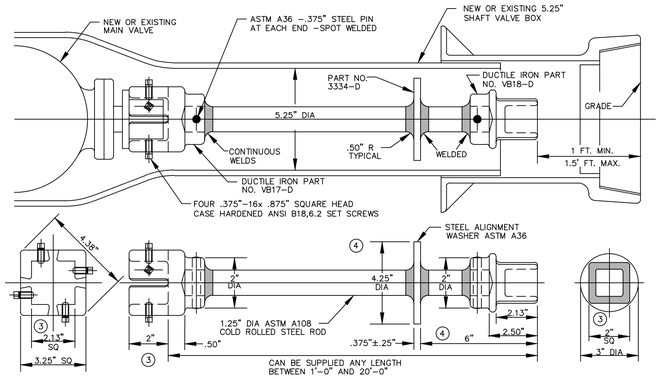
NTS DATE: NOV. 2022



NOTES:
1. MAIN SHALL BE A CONTINUOUS LENGTH OF D.I. PIPE TO EXTEND 2 FEET MINIMUM EITHER SIDE OF THE DRAINAGE SWALE.
2. IF 1 OR MORE JOINTS OF PIPE IS REQUIRED, JOINT MUST BE RESTRAINED.

SWALE CROSSING DETAIL

NTS DATE: NOV. 2022

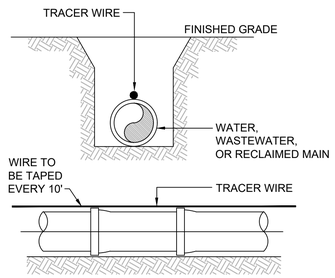


NOTE:
1. DUCTILE PARTS ARE TYPE 80–60–03 80/100,000 PSI TENSILE – ASTM A536
2. ASSEMBLY TO RECEIVE TWO COATS BITUMINOUS BASE BLACK PAINT
3. TOLERANCE + OR – .0625"
4. TOLERANCE + OR – .125"

TYPE "WVR" VALVE EXTENSION STEM
WSSC P&M/1.4 – APPLICABLE STOCK NO. 4840–0001–3

VALVE EXTENSION STEM FOR W.S.S.C. VALVE BOXES

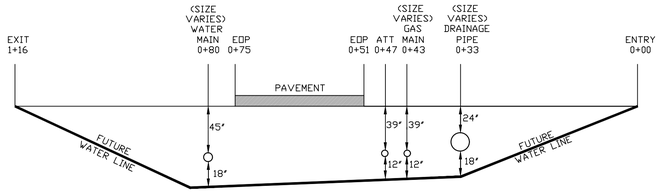
NTS DATE: NOV. 2022



NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (UF 14 COPPER WIRE) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE TAPED EVERY 10' TO TOP CENTERLINE OF THE PIPE.
2. WIRE IS TO BE CONNECTED TOGETHER USING AN UNDERGROUND WIRE NUT WITH A SILICON BASED SEALANT.
3. SEE "TRACER WIRE" SPECIFICATIONS.

TRACER WIRE DETAIL

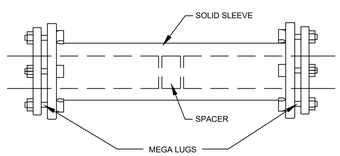
NTS DATE: NOV. 2022



NOTES:
1. BORE PLAN TO SHOW SIZE, DEPTH, AND LOCATION OF ALL UTILITIES.
2. BORE PLAN TO BE IN ACCORDANCE WITH LATEST TECHNICAL PROVISIONS.
3. BORE PLAN MUST BE APPROVED BY ENGINEERING DEPARTMENT PRIOR TO ANY CONSTRUCTION.
4. DEPTH OF BORE PER BREVARD COUNTY OR FDOT JURISDICTION.

TYPICAL BORE PLAN

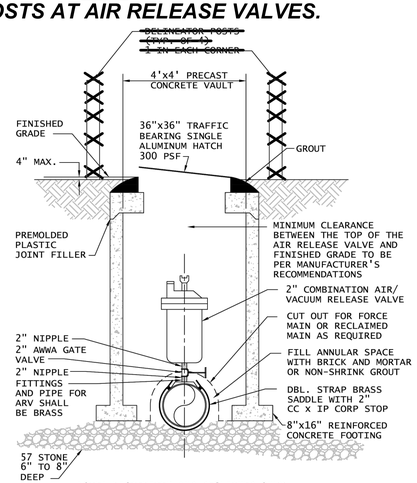
NTS DATE: NOV. 2022



SOLID SLEEVE DETAIL

NTS DATE: NOV. 2022

NOTE: DO NOT CONSTRUCT DELINEATOR POSTS AT AIR RELEASE VALVES.



NOTE: WASTEWATER AND RECLAIMED ONLY

AIR OR COMBINATION AIR/VACUUM RELEASE VALVE

CITY OF COCOA Brevard County, Florida UTILITIES DEPARTMENT ENGINEERING DIVISION	AIR RELEASE VALVE	DRAWN BY: J. WILLIAMS	SCALE: NOT TO SCALE
		CHECKED BY: P. DAVIS	DATE: NOVEMBER 2022
		DESIGN BY:	SHEET: 1 OF 1
		ACAD NAME: AIR RELEASE VALVE	

NOTES:
1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/DocumentCenter/View/15072/Cocoa-Utilities-Technical-Provisions-2022-Edition.

City of Cocoa, Florida
Utilities Department
Updated November 2022

NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY LB | DRN BY LB | CHK BY SN | APPR BY MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD WATER DETAILS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: C 30.0

O:\merritt_island\Dwg\eng 4000–4999\412401 lakes at cocoa grove – 21–0569.000 drmp\21–0540.002 osage utilities plan\21–0540.002 27–34 DETAILS.dwg Plotted: Dec 20, 2023 – 3:47pm by gmatchett

SECTION 1 - GENERAL INFORMATION

1.1 GENERAL

These Technical Provisions and Standard Details identifies design, installation, inspection, and acceptance specifications to be used for water, wastewater, and reclaimed water systems that will be maintained and operated by the City of Cocoa. All potable water, wastewater, and reclaimed water mains and appurtenances must be installed in accordance with this Manual, the City of Cocoa Cross Connection Control Program Manual, the City of Cocoa Utilities Handbook, and the approved plans.

Contractor requirements include:

- Furnishing all labor, materials, tools and equipment necessary or incidental to the construction.
- Obtaining and paying for all permits, inspections, and other official fees in connection with the work.
- Arranging a pre-construction conference with the Engineering Inspection Division. **All fees must be paid prior to the pre-construction meeting.** It is required that the pre-construction meeting be held prior to ordering materials.
- Scheduling materials inspection (24-hour notice), open ditch inspection, pressure/leakage test, and final inspection.
- Provide all documents per the project requirement letter, including but not limited to As Built Drawings, Bills of Sale, Easements, etc.
- Make certain that no public water/wastewater lines are placed on private property.

Technical information provided by the City shall be used for informational purposes only. The Contractor and Engineer of Record are responsible for verifying field conditions.

Any deviation from these requirements must be approved in writing by the Utilities Director or his designee prior to commencement of construction.

Fees charged by the City are set by City Council by resolution and are listed on the appendix "Water Service Rates and Charges" made a part of the Utilities Handbook. Fees are subject to change without notice. The most current fees will be charged.

The Utilities Department and Engineering Division are located at 351 Shearer Blvd., Cocoa, Florida, 32922. The telephone number is (321) 433-8701; facsimile number is (321) 433-8708.

1.2 DEFINITIONS

The term "**approved equal**" is used to mean a part or item that has been approved in writing by the Technical Provision and Standard Details Advisory Committee or the Utilities Director. A written request must be made in order to have an item accepted as an approved equal. Written specifications on the part or item must be furnished with the request.

Approved Tapping/Linestop Contractor - A Contractor who has been approved by the Engineering Division to perform taps or linestops within the Cocoa Water System. A current list is maintained and available through the Engineering Division.

Backflow Preventer Assembly - A backflow preventer assembly, also called a cross connection control (CCC) device, is a mechanical or non-mechanical device used to prevent the flow of water from a non-potable source to the potable water distribution system. Approved backflow preventers are testable assemblies composed of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly, and fitted with properly located resilient seated test cocks.

Canal - A trench, the bottom of which is normally covered by water, with the upper edges of its two sides normally above water.

City - Means the City of Cocoa.

Collection Mains - Wastewater gravity mains.

Competent Person - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Distribution Main - Any water main twelve inches (12") and smaller.

Domestic - Means made or manufactured in the USA.

Drainage Ditch or Irrigation Ditch - A man-made trench which is dug for the purpose of draining water from the land or for transporting water for use on the land and which is not built for navigational purposes.

Force Main - Wastewater main under pressure.

Manual - City of Cocoa Utilities Technical Specification and Standard Details Manual.

Normal Working Day - Monday through Friday, excluding CITY holidays.

Normal Working Hours - Hours are between the hours of 8:00 a.m. to 5:00 p.m. of a NORMAL WORKING DAY.

Passivated - Treated or coated metal to reduce the chemical reactivity of its surface.

Stainless Steel - A steel alloy with a minimum of 10.5% to 11% chromium.

Substantial Completion - The point when the construction project has been finished to the point that the City of Cocoa can use the project for the purpose it was intended.

Swale - A manmade trench which:

A. Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than three feet horizontal to one foot vertical;
B. Contains contiguous areas of standing or flowing water only following a rainfall event;
C. Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake;
D. Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area to prevent erosion and reduce pollutant concentration of any discharge.

Technical Provision and Standard Details Committee - Committee whose members shall consist of the manager, or their designee, of the following UTILITIES staff: Engineering, Inspections, Water Field Operations, and Sewer Field Operations. The committee evaluates and proposes revisions for the design standards, specifications, drawings, products and procedures for the Manual.

Transmission Main - Any water main sixteen inch (16") and larger. Fourteen-inch (14") pipelines are not acceptable.

Utilities - Utilities Department of the City of Cocoa, Cocoa, Florida, and/or its designated representative(s).

Utilities Handbook - The City of Cocoa Utilities Handbook produced by the Customer Service Division of the Finance Department.

Whenever a specification from a specific source is cited, the most current revision of that specification will be used. **The word "shall" is mandatory, and the word "may" is permissive.**

Unless otherwise specified, "**City**" means City of Cocoa; "**Utilities Department**" means City of Cocoa Utilities Department; "**Engineering Division**" means City of Cocoa Utilities Engineering Division, "**Inspections or Inspector**" means City of Cocoa Utilities Engineering Inspections Division.

1.3 ABBREVIATIONS

American Association of State Highway and Transportation Officials - AASHTO
Asbestos Cement - AC
Association of PVC Pipe Manufacturers - Uni-Bell
American National Standards Institute - ANSI
American Society of Civil Engineers - ASCE
American Society of Mechanical Engineers - ASME
American Society for Testing and Materials - ASTM
American Water Works Association - AWWA
American Water Works Association Tapered Thread - CC
American Society of Sanitary Engineers - ASSE
Automatic Transfer Switch - ATS
City of Cocoa - CoC
Copper Clad Steel - CCS
Copper Development Association - CDA
Cross Connection Control - CCC
Dimension Ratio - DR
Double Check Backflow Assembly - DC
Double Check Detector Assemblies - DCDA
Dry Film Thickness - DFT
Ductile Iron Pipe Research Association - DIPRA
Ductile Iron Pipe - DIP
Engineer of Record - EOR
Florida Administrative Code - FAC
Florida Department of Environmental Protection - FDEP
Florida Department of Transportation - FDOT
Florida East Coast Rail Road - FECRR
Foundation for Cross-Connection Control and Hydraulic Research - FCCCHR
Flange - FL
Factory Mutual - FM
High-Density Polyethylene - HDPE
Horizontal Directional Drilling - HDD
Jack and Bore - J&B
Maintenance of Traffic - MOT
Manual on Uniform Traffic Control Devices - MUTCD
National Association of Corrosion Engineers - NACE
National Fire Protection Association - NFPA
National Sanitation Foundation - NSF
National Standard Thread - NST
Non-rising stem - NRS
Original Equipment Manufacturer - OEM
Outside Screw and Yoke - OS&Y
National Pollution Discharge Elimination System - NPDES
Plain End - PE
Polyvinylchloride - PVC
Precautionary Boil Water Notice - PBWN
Portable Changeable Message Signs - PCMS
Pre-stressed Concrete Cylinder Pressure Pipe - PCCP
Project Manager - PM
Pounds per Square Inch - PSI
Raised Pavement Marker - RPM
Reduced Pressure Backflow Assembly - RP
Reduced Pressure Detector Assembly- RPDA
Reinforced Concrete Pressure Pipe - RCP
Stainless Steel - SS
Technical Provision and Standard Details - TPSD
Traffic Control Plan - TCP
Underwriters Laboratories - UL
Unified Numbering System - UNS
Variable Frequency Drive - VFD

SECTION 2 - WATER - POTABLE AND RECLAIMED

2.1 WATER MAIN CROSSINGS

2.1.1 GENERAL

In all cases where sanitary gravity or force mains cross water mains the crossing shall meet the vertical and horizontal separation requirements of FAC Rule 62-555.314. When separation requirements cannot be met, the Engineer of Record must propose an alternative solution that meets the requirements of FAC 62-555.314 for approval by the Engineering Division. The water main should cross above the sanitary main, when the water main must cross below the sanitary main, the minimum separation shall be 12 inches.

2.2 MATERIALS SPECIFICATIONS

2.2.1 PIPE

2.2.1.1 Polyvinyl Chloride Pressure Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (sizes 4" through 12") will be cast iron pipe equivalent outside diameter Class 235 (DR 18) conforming to the American Water Works Association's (AWWA) specification C900 and will be blue or white in color. Pipe will be in standard 20-foot lengths. All joints will be of the elastomeric-gasket type with thickened, integral solid-wall bell or coupling with the same DR as the barrel. All PVC pipe and couplings will bear the UL label and NSF approval for potable water.

2.2.1.2 Fusible Polyvinyl Chloride Pipe, 4" - 12"

Polyvinyl chloride pressure pipe (size 4" through 12") will be cast iron pipe equivalent outside diameter and a pressure rating of 235 PSI (DR 18) conforming to AWWA specification C900 and will be blue or white in color. Fusible PVC pipe shall be supplied by Underground Solutions, Inc. It shall be installed in accordance with the suppliers' specifications. All PVC pipe will bear the UL label and NSF approval for potable water.

2.2.1.3 Ductile Iron Pipe

Ductile iron pipe will be cement-lined pressure Class 350 for 12-inch diameter and smaller and Class 250 for 16-inch and larger conforming to AWWA specification C151. Water main and storm drain crossing conflicts will be properly designed by the project engineer and approved by the Utilities Department prior to installation. Water mains that are less than 10 feet apart from building foundations or other permanent objects will be ductile iron pipe. In no case will water mains be located less than 5 feet from foundations. The above distances will be doubled for water mains larger than 8" in diameter. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be blue for water mains.

2.2.1.4 High Density Polyethylene (HDPE) Pipe

HDPE pipe is generally not accepted in the City of Cocoa water system, except as a carrier pipe for a pressurized utility main.

2.2.1.5 Reclaimed Water

PVC pipe installed in reclaimed water systems will be Class 235 (DR 18) conforming to AWWA specification C900 and will be purple in color. Ductile iron pipe installed in the reclaimed water system will be pressure Class 350 for 12" and smaller and pressure Class 250 for 16" and larger, provided 3 feet of cover can be maintained. Where cover is less than 3 feet, pressure Class 350 is required. Polyethylene sleeve conforming to AWWA specification C105 will be provided for all installations. The polyethylene sleeve will be sealed with tape and shall be purple for reclaimed water mains.

2.2.2 VALVES, VALVE BOXES, AND VALVE EXTENSIONS

2.2.2.1 Resilient Seat Gate Valves, 4" - 36"

Resilient seat gate valves will have mechanical joint ends as manufactured by **American Flow Control; AVK; M&H; U.S. Pipe; Clow; Mueller** or an approved equal. The resilient seat gate valves must conform to AWWA specification C509 or C515 and be manufactured in the U.S.A. Resilient seats will be of natural or synthetic rubber and be fully encapsulated to gate. Valves will have 18-8 Type 304 Stainless Steel bolts and nuts. The interior and exterior of the valve body will be fusion-bonded epoxy coated in accordance with AWWA specification C550 in order to provide a corrosion-resistant seat. The coating must be applied in a manner to withstand the action of line fluids and operation of the sealing gate under long-term service. Valve seats must seal by compression only. Wedging or sliding of the resilient seat is not acceptable. Valves will be supplied with 2"-square operating nuts and be designed to provide a bubble tight seal regardless of direction of flow. Opening the valve will be in the counterclockwise direction. Valves 16" and larger will have Bevel Gear Operators. For gate valves 16" and larger to be stood up straight, the 2" operating nut must have 12" of cover. Engineer of Record or Contractor must demonstrate the 12" of cover over the 2" operating nut can be achieved by showing all pertinent dimensions. Tapping valves shall have a centering ring.

2.2.2.2 Butterfly Valves, 16" and Larger

Butterfly valves shall be used for above ground service. Butterfly valves shall have flanged ends, be rubber seated, 90o tight closing type, short body. The interior and exterior will be fusion-bonded epoxy coated in accordance with AWWA specification C550. The valve shaft will be of 316 Stainless Steel. Body dimensions and minimum shaft diameter will be in accordance with Tables 1 and 3 of AWWA specification C504. The valve seat will be of molded natural or synthetic rubber, will be mechanically secured to the disc or to the valve body, and will mate against a stainless-steel seat surface. The gear ratio will be such as to require not more than 50-foot pounds of input torque to operate the valve against the worst case of a water flow velocity of 10 feet per second at a pressure of 100 psi differential. A torque-limiting device will be supplied if the allowable operator input is less than 450-foot pounds. Butterfly valves will have a factory installed hand wheel. The valve will open when the operator nut is turned counterclockwise. **Butterfly valves will not be used for buried service.**

2.2.2.3 Valves, 2"

Two-inch valves for use with the 2" blow-off gate valve will be rated at 125 SWP or 200 WOG. All 2" gate valves must meet all EPA and DEP requirements regarding lead and zinc contents. Brass fittings and 2" brass wheel valves are shall be used on blow-offs. All valves must be manufactured in the U.S.A.

2.2.2.4 Valve Boxes

Valve boxes and lids must be manufactured in the U.S.A. Boxes and lids must be structurally equal to those produced by East Jordan Iron Works or Tyler and must have 5-1/4" minimum inside diameter. Cast iron valve boxes will consist of a circular cast iron top and bottom section. The depth must be determined, and the appropriate valve box must be installed. No PVC or Ductile is permitted in the valve box. Boxes must be set flush with finished ground surface in such a manner as to permit easy use of a valve wrench and to prevent surface loads from being transmitted to the valve or pipe. Box sections must be telescopic and adjustable. Valve box lids should have the word "WATER" or "SEWER" or "REUSE", as appropriate, cast on the top. A concrete pad (24" L x 24" W x 4" D) will be poured around all boxes at finished grade level unless the valve is located in a paved roadway or parking lot. A Valve identification plate engraved to indicate the type, size, and number of turns will be securely anchored to the concrete pad. Valve identification plates for valves 12" and larger will also indicate the torque necessary for actuation.

2.2.2.5 Valve Extensions

If the depth of the valve nut is greater than 48" below grade, or 30" below grade and under the water table, a valve extension stem will be required. The extension will have a centering collar and will be mechanically attached to the valve operating nut, such as extensions manufactured by the General Engineering Company, Model #4840-0001-3, or an approved equal to be determined by the Engineering Supervisor or his/her designee.

2.2.2.6 Valve Box Debris Shield

All buried valves 4-inch through 12-inch requiring a valve box shall be furnished with a valve box shield (alignment device). The device shall minimize debris infiltration and center the valve box over the operating nut. The device shall be of HDPE or plastic and colored white or black. It shall be furnished in two pieces that will lock together under the operating nut without requiring the removal of the operating nut. The device shall not affect the operation of the valve. No one-piece device will be accepted. The device shall be **Box Lok, American** or approved equal.

2.2.2.7 Insert Valve Specification

The Insert Valve shall conform to the following:

The Ductile Iron 250 p.s.i.g. Insert Valve shall be a Resilient Wedge Gate Valve designed for use in potable water, raw water, reclaimed water, wastewater and backflow control systems. The host pipe shall not be a permanent component of the Insert Valve. The ductile iron body, bonnet, and wedge provide strength and a pressure rating that meets or exceeds the requirements of AWWA C515. Insert Valve shall be ductile iron construction meeting ASTM A536 Grade 65-45-12.Sizes 12" and smaller must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, IPS PVC, C900 and C909 PVC, Steel, AC pipe diameters without changing either top or bottom portion of split valve body. The Insert Valve shall have a 250 psig maximum working pressure. The pressure rating markings must be cast into the body of the insert valve. The construction of the Resilient Wedge shall comply with AWWA C509 requirements. The ductile iron wedge shall be fully encapsulated with EPDM rubber by a high pressure and high temperature compression or injection mold process. The resilient wedge shall seat on the valve body and not the pipe to obtain the optimum seating and flow control results. The resilient wedge shall be totally independent of the carrier pipe. The resilient wedge shall not come into contact with the carrier pipe or depend on the carrier pipe to create a seal. The Resilient wedge must ride inside the body channels to maintain wedge alignment throughout its travel. The insert valve is fully epoxy coated on the interior and the exterior. Valve shall be coated with a minimum of 10 mils epoxy in compliance with AWWA C550 and certified to ANSI/NSF-61. The stuffing box, operating stem and resilient wedge (complete bonnet and all moving parts) shall be removable, repairable and or replaceable under pressure.

See "Appendix A" Approved Materials for approved Insert Gate Valves.

2.2.3 BACKFLOW PREVENTERS

2.2.3.1 General

All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly as required in the "City of Cocoa Cross Connection Control Program Manual". Backflow preventer assemblies shall be in accordance with AWWA specification C510, ASSE 1048, UL 1469, and as listed in "Appendix A" of this document. All backflow preventers shall be installed per Standard Details in "Appendix B". Backflow preventers on fire line and commercial services shall have test certifications submitted and approved prior to final inspection.

Backflow preventers will have interior fusion bonded epoxy coating 5 to 12 mils and will be installed above grade in accordance with manufacturer's recommendations on a concrete slab adjacent to the meter. Check valves must have bronze seats.

Commercial Services: Cross connection control device required for commercial service, including multi-family residences, shall be a reduced pressure (RP) backflow preventer unless otherwise approved by the Engineering Division.

Residential Services: Cross connection control device required for residential service shall be a dual check backflow preventer.

Construction Sites: Cross connection control device required for temporary construction jumpers shall be a double check backflow preventer. The Contractor shall provide test certifications on the jumper backflow preventer before the jumper is placed into service.

2.2.3.2 Fire Services

Cross connection control devices for fire line systems shall be double check detector assemblies (DCDA) or reduced pressure detector assemblies (RPDA). DCDA and RPDA shall meet the requirements of the Florida Building Code and must be supplied with a ¾-inch or larger bypass assembly. DCDA will be accepted as a complete approved assembly in accordance with the section on "Backflow Prevention and Cross-Connection Control" in the Utilities Handbook. The Engineering Division will inspect the interior of the DCDA prior to installation. DCDA must be installed horizontally above ground in a grassed or non-traffic area. The DCDA will be installed with 24" minimum and 30" maximum clearance from finished grade. "N" shaped DCDA will be accepted on a case-by-case basis. Fire lines requiring an RPZ will be handled on a case-by-case base. The Engineering Division shall paint the DCDA, to be paid for by the Developer/Contractor.

2.2.3.3 Meter Station Backflow Preventer

Backflow Preventers for the large meter stations (3-inch and larger) are a Reduced Pressure Zone Assembly and manufactured in accordance with AWWA C511. The assembly will be installed so as the relief valve opening will be a minimum of 12" above concrete slab. If the meter station is in a planter, the top of the planter is considered the flood rim and the relief valve opening shall be 12" above the concrete slab. The Engineering Division shall paint the meter station assembly, to be paid for by the Developer/Contractor.

2-inch meter stations may be allowed on a case-by-case basis as approved by the Engineering Division.

2.2.3.4 Backflow Preventer Certification Test

The Contractor will provide test certifications on the jumper backflow preventer before jumper is placed into service. Backflow preventers on fire-line and meter stations will have test certifications submitted and approved prior to final inspection.

2.2.4 FITTINGS

All fittings must be of the mechanical joint type with an approved joint restraint, or push-on joint with a gasket joint field restraint system. All fittings must be manufactured in the U.S.A.

2.2.4.1 Cast Iron

Cast iron fittings will be AWWA specification C110; Class 250, cement lined with inside seal coating. The fittings will be bituminous coated on the outside and be wrapped with 6 mil polyethylene (sealed with tape). Cast iron fittings are only to be used in larger applications where ductile iron fittings are not available.

2.2.4.2 Ductile Iron, 4" - 16"

Ductile iron compact fittings (sizes 4" through 16") must conform to AWWA specification C153. Ductile iron compact fittings will be mechanical joint with an interior cement lining with seal coating and an exterior bituminous coating. All fittings will be wrapped with 6 mil polyethylene (sealed with tape).

2.2.4.3 Bolts

All buried mechanical joint bolts and nuts must be CORTEN Steel. All above ground bolts and nuts for flanged fittings must be 18-8 Type 304 stainless steel. Never-seize/Anti-seize shall be applied to all SS bolts and nuts.

2.2.4.4 Tapping Sleeve

Tapping sleeves on mains 4" to 12" in diameter will be all Stainless Steel Sleeves.

The All Stainless Steel Sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and full circumferential gasket to provide 360° seal around the pipe. The tapping sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage.

Sleeves on mains 16" to 24" in diameter will be fabricated steel with O-ring seal, fusion bonded, epoxy coated with 304 stainless steel nuts and bolts or M.J. ductile iron body. Sleeves on mains larger than 24" will be handled on a case-by-case basis.

Tapping Sleeves for reinforced concrete mains will be handled on a case-by-case basis. The sleeves will have a fusion-bonded epoxy coating on the entire body and throat assembly. The straps and bolts shall be 18-8 Type 304 stainless steel.

The tapping valve must have centering ring and conform to Section 2.2.2.1 "Resilient Seat Gate Valves" in these Technical Provisions.

Tapping saddles to be placed on asbestos concrete (AC) pipe shall be an **JCM A432** All Stainless Steel Sleeve or equal.

2.2.4.5 Line Stop Sleeve Specifications

Sizes 4" through 12"

Sleeve/Body
The entire Line Stop sleeve shall be fabricated from 304 Stainless Steel. They shall have a pass through bolt design and provide 360° seal around the pipe. The line stop sleeve is to be fully passivated to return the stainless steel to its highest corrosion resistance stage. Outlet on sleeve will be full port, i.e. on 8" sleeve, outlet will be 8", on 6" sleeve, outlet will be 6".

Bolts, Nuts & Washers
18-8 Type 304 Stainless Steel, the bolts shall be track head type and furnished with permanently lubricated heavy-hex nuts and stainless washers.

Gasket
The full circumferential gasket shall be molded of synthetic rubber compounded for use with water salt solutions, mild acids, bases and sewage. The gasket shall have a gridded surface, be a full 1/4" thick with 304 stainless steel bridge plates molded flush into the gasket and have a raised hydromechanical outlet seal to seal against line surges and water hammer.

Pressure Rating
The sleeves shall be rated at 150 PSI hydrostatic with a test pressure of 200 PSI on pipe with a full circumferential break.

Line Stop Sleeves shall be a **JCM A440 Line Stop Sleeve** or approved equal.

2.2.5 FIRE HYDRANTS

Fire hydrants must be manufactured in accordance with AWWA specification C502. Hydrants must have bronze-to-bronze main seat threading surfaces. They will be traffic type with drain holes plugged at the factory. Fire hydrants will have 18-8 Type 304 Stainless Steel bolts and nuts (bonnet, traffic flange and shoe).

Hydrants will have a minimum 5-1/4" main valve opening, with one 4-1/2" pumper nozzle, and two 2-1/2" hose nozzles. Nozzles to have NST threads. Stem couplings are to be cast iron or stainless steel. The upper valve plate must be bronze. The hydrant shoe will be coated inside with fusion-bonded epoxy, 6 mil minimum. All hydrants will be painted at the factory with Rustoleum high-performance epoxy 9100 system, non-lead, dry film thickness 5 to 8 mils, color #9143 Yellow. City crews will apply finish paint to each new fire hydrant after the Contractor has paid the appropriate fees.

Finish grade is to be established and the proper length hydrant is to be installed by the Contractor prior to acceptance by the City. All nozzles will be a minimum of 18" and a maximum of 24" above finished grade. A 6" mechanical joint hydrant connection will be provided using a hydrant valve-anchoring tee with integrally cast standard mechanical joint gland on 6" plain end branch. The Contractor will not be allowed to install risers on hydrants. At final inspection, if it is determined that a fire hydrant is not at grade, the Contractor shall purchase a proper length hydrant and install it under the direction of the Engineering Division.

2.2.6 SERVICE CONNECTIONS, 3/4"-2"

All service connections will be single connections. Services that are 3/4" and 1" are to be type K annealed temper soft copper. All connections are to be of the flare type. 1-1/2" and 2" services are to be of type K drawn temper in straight lengths or annealed temper if furnished in coils. Absolutely no lead-based solder joints will be accepted. Any repairs of service lines will be by flare-to-flare coupling. No compression fittings will be accepted. Taps in the pipe will be the same nominal diameter as the service line. Service taps in PVC pipe will be drilled with a shellcutter designed to cut PVC pipe, and the PVC plug will be removed.

Brass goods furnished under this specification shall be new and unused. All fittings shall conform to ANSI/AWWA Standard C800, latest revision.

All brass components in contact with potable water must be made from either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of .25% by weight. Brass alloys not listed in ANSI/AWWA C800 Paragraph 4.1.2 are not approved. All service fittings shall be certified as suitable for contact with drinking water by an ANSI accredited organization in accordance with ANSI/NSF Standard 61. All fittings shall be stamped or embossed with a mark or name indicating that the product is manufactured from the low-lead alloy as specified above.

Brass saddles shall be made from CDA/UNS C83600 and are exempt from the "no lead" requirement.

2.2.6.1 Saddles

Saddles must be used for all connections to PVC, AC and D.I. pipe. Saddles must be all brass with "CC" threads as manufactured by **Mueller Company**, or **Ford Meter Box Company**. The pipe sizes for these manufacturers are noted below (approved materials are also listed in "Appendix A"):

MUELLER: For ductile iron pipe sizes 4" to 12", for 3/4" and 1" services, the single strap design must be used. For 1-1/2" and 2" services, the BR 2 B double strap design must be used.

FORD: For pipe sizes 4" to 12", for 3/4" and 1" services, the style 101B single strap design must be used. For 1-1/2" and 2" services, the style 202B double strap design must be used. For pipe sizes 16" and larger, for 3/4", 1", 1-1/2," and 2" services, the style 202B double strap design must be used.

An approved equal may be used in lieu of any of the above-listed designs/models.

2.2.6.2 Curb Stops, 3/4" - 2"

Curb stops 3/4" and 1" in size will be flare-by-meter coupling. **Curb stops must have locking wings and a swivel meter nut**. Curb stops that are 1-1/2" or 2" will be flare-by-meter flange with locking wing or an approved equal. All curb stops shall be centered in the meter box and installed in a horizontal position.

2.2.6.3 Corporation Stops, 3/4" - 2"

All corporation stops for water service ¾" thru 2" will be brass and have "CC" inlet threads and copper flare outlet. 2" Corporation stops for "jumpers" will be "CC"-by- F.I.P.

2.2.6.4 Meter Boxes

Meter boxes for radio-read meters must have a lid compatible with City's AMR meter antennae (4-1/2" round). Service locations will be permanently cut and painted on concrete curb or the street with a blue "W" for potable water or a purple "R" for reclaimed. Reclaimed services will be located at the opposite lot corner from water services where practical or with five feet minimum separation.

For larger 1-1/2 and 2-inch meters, 17" x 30" meter boxes shall be used.

Meter boxes shall have the appropriate ANSI/SCTE 77 load rating for their intended location: Meter boxes, located within paved ares subject to deliberate heavy vehicular traffic such as roadways, driveways, and parking lots shall be AASHTO H-20 load rated; otherwise, meter boxes shall be Tier 15 load rated.

Reclaimed Water services will be set in purple meter boxes of materials per above. They are also required to have a 3" x 5" permanent plastic tag, secured to the curb stop with a nylon tie wrap, which will be supplied. Tags will be inscribed, "RECLAIMED WATER DO NOT DRINK."

2.3 PROTECTION OF PROPERTY AND OBSTRUCTIONS

2.3.1 PROTECTION

Temporary supports and/or adequate protection and maintenance must be provided on all underground and surface structures encountered in the progress of the work. Structures that have been disturbed will be restored to a condition equal to their original state upon completion of the work.

2.3.2 OBSTRUCTIONS

All utility owners must be notified prior to beginning construction. Any known obstructions will be shown on the plans; however, Contractor is solely responsible for field verifying existing conditions. The utmost caution will be taken in all operations to avoid damage to existing obstructions whether or not shown on the plans. Damage to other utilities will be at the Contractor's expense.

If the Contractor encounters any unforeseen obstructions during construction, the Contractor shall immediately cease work in that area and notify the Engineer of Record (EOR). The EOR shall design and provide detailed drawings to correct the situation. The drawings shall be submitted to the Engineering Division for approval. After approval by the Engineering Division, a set of approved drawings will be given to the contractor and they may resume work.

2.3.3 EXISTING ASBESTOS CEMENT WATERMAINS

In areas where asbestos cement water mains are existing, water main relocations or replacements may be necessary. If new construction of facilities is over, under, or near asbestos cement water mains, it shall require that the asbestos cement water main be changed out to polyvinyl chloride pipe or ductile iron pipe. All asbestos cement pipe that is replaced shall be removed and disposed of by the contractor unless specifically directed in writing by the City to abandon in place. New pipe material shall depend upon the type and location of the facilities being constructed. The Developers Engineer shall design the replacement and submit it for the Engineering Division approval. The Developer is responsible for all design, materials, labor, equipment, testing, and costs for the replacement. Contractor shall remove and dispose of AC pipe in accordance with FAC Codes 62-204.800 and 62-257.

2.3.4 ABANDONMENT OF ASBESTOS CEMENT PIPE

Where asbestos cement water mains have been directed by the City to be abandoned in place they shall be filled with a sand/cement grout by the contractor. Grout shall be injected within the pipe sections to be abandoned where the ends of the sections shall be capped and or plugged. The grouting program shall consist of pumping sand-cement grout with suitable chemical additives at pressures necessary to fill the pipe sections to prevent the potential for future collapse. The rate of pumping shall not exceed six (6) cubic feet per minute. The pumping pressures shall be in the range of 100 to 150 psi.

The Contractor shall provide standpipes and/or additional means of visual inspections as required by the City to determine if adequate grout material has filled the entire pipe section(s).

2.4 TRENCH PREPARATION

2.4.1 EXCAVATION

A trench will be opened so that the pipe can be installed to the alignment and depth required. It will be excavated only so far in advance of pipe placement as necessary. The trench will be excavated to the depth required to provide a uniform and continuous bearing support for the pipe or undisturbed ground. Bell holes will be provided at each joint to permit jointing to be made and inspected properly.

During excavation, if ashes, cinders, muck or other organic material considered unsuitable is discovered at the bottom of the trench at sub-grade, unsuitable material will be removed and backfilled with approved material. This material will be compacted in layers to provide a uniform and continuous bearing characteristic of that area's soil condition. Where the bottom of the trench at sub-grade consists of unstable material to such a degree that it cannot be removed and replaced with an approved material to support the pipe properly, a suitable foundation must be constructed. Excavated material will be piled in such a manner that it will not endanger work or obstruct natural watercourses, sidewalks or driveways. Fire hydrants under pressure, valve boxes, or other utility controls will be left unobstructed and accessible at all times. Gutters will be kept clear or other satisfactory provisions will be made for street drainage.

2.4.2 SHORING AND BRACING

Open cut trenches must be sloped, shored or braced as required by all governing State law, municipal ordinances, OSHA Standards, and as may be necessary to protect life, property, or the work. Trench bracing may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal. The use of a trenching box may be used in place of sheeting and bracing where appropriate. The Contractor is required to have a Competent Person designated and in charge at all times while workers are in the trench.

2.4.3 DE-WATERING

Excess water must not be allowed in the trench at any time. An adequate supply of well points, headers or pumps, all in first-class operating condition, may be used to remove the water. The use of gravel and pumps will also be an acceptable means of removing the water. The trench will be excavated no more than the available pumping facilities are capable of de-watering. Discharge from pumps will be accommodated in accordance with the St. Johns River Water Management District's requirements. The Contractor is responsible for obtaining all de-watering permits such as NPDES permit.

2.5 PIPE LINE CONSTRUCTION

2.5.1 GENERAL

All water mains, service lines, and appurtenances must be installed as specified on the approved plans and in accordance with the Standard Detail Sheet. Installation will conform to AWWA specification C600 except as modified herein.

Domestic water service can only come from a Distribution main. When water service is requested and the only water main available is a Transmission main, a large tap and section of pipe shall be installed on the Transmission Main for the water service.

The minimum size tap on a Transmission Main shall be a six (6) inch.

2.5.2 MATERIAL HANDLING

2.5.2.1 Precautions

Every precaution will be taken to prevent damage to pipe and piping materials during transportation and delivery to the work site. Under no condition will pipe be dropped, bumped, dragged or picked up by inserting forks into end of pipe. Pipe lifted by placing forks into pipe shall be removed from job site.

2.5.2.2 Damaged Materials

If in the process of transportation, unloading or handling, any pipe or fitting is damaged, it will be rejected and removed from the site.

2.5.2.3 Storage

Pipe fittings and specials will be stored in a manner which will assure the protection of the material from damage and which will keep it clean.

2.5.3 INSPECTION OF MATERIALS

Materials delivered to the job site will be subject to inspection by the Engineering Division prior to installation. Contractor shall notify Inspections 24 hours in advance. All materials found to be defective or not meeting specifications during inspection or during the progress of the work will be rejected and removed from the job site without delay. All materials delivered to the job site will be in accordance with the materials specifications. Materials not inspected by the Engineering Division prior to installation will be uncovered by the Contractor at their expense to verify compliance with these specifications. The Contractor will furnish copies of the packing list(s) for materials upon demand.

2.5.4 PIPE PLACEMENT

The bottom of the trench will not be excavated below the specified grade. If undercutting occurs, the bottom of the trench will be brought up to the original grade with approved material and thoroughly compacted, as directed by the Engineering Division. Before placing pipe into the trench, the outside of the spigot and the inside of the bell will be wiped clean, dry, and free from oil and grease. Every precaution will be taken to prevent foreign material from entering the pipe. During placement operation, no debris, tools, clothing or other material will be placed in the pipe.

All mechanical joints will be made up in strict accordance with the manufacturer's specifications. Beveled ends will be removed from PVC pipe entering a mechanical joint. The bell will be carefully cleaned before the gasket is inserted. Gaskets must be evenly seated, the gland placed in position with the bolts, and evenly tightened. All slip joints will be made up in strict accordance with the manufacturer's specifications.

After placing a length of pipe in the trench, the spigot end will be centered in the bell, the pipe forced home, brought to correct alignment, and covered with an approved backfill material. Ductile iron pipe will be backfilled to the centerline of the pipe and compacted to ninety-five percent (95%) of standard Proctor T-99.

PVC pipe will be backfilled in accordance with the manufacture's recommendations for the laying conditions.

Pipe will be installed with 30" minimum cover. Maximum cover of 42" will be accepted. Cover depth will be determined from proposed finish grade as indicated on the plans. At times when pipe placement is not in progress, the open ends of pipe must be closed by a watertight plug or other approved means. This provision will apply during the lunch hour as well as overnight. If water is in the trench, the seal will remain in place until the trench is pumped completely dry.

All underground water main shall meet the horizontal and vertical separation requirements in FAC 62-555.314 as related to sanitary force main and gravity main, reclaim mains, and storm water gravity and force mains.

Pipe installed under swales shall be D.I. and have 3 feet minimum cover. D.I. pipe to be centered on swale. If more than one joint of pipe is necessary, restrained joint pipe is required. See "Swale Crossing" detail and definitions.

Pipe installed under canal or drainage ditch shall conform to all FDEP requirements. Pipe shall be restrained joint D.I. pipe with gate valves on both sides of canal/ditch. D.I. pipe shall have 5 feet minimum cover with a concrete cap. See "Canal or Drainage Ditch Crossing" detail and definitions.

2.5.5 TRACER WIRE

For the purpose of electronically locating pipe after it is buried, tracer wire will be installed with all potable, reclaimed, and wastewater mains in accordance with the Standard Detail Sheet. The color of the wire insulation shall be the same color as the color code for the pipe being installed. Insulation color shall be blue for potable, purple for reclaimed, and green for wastewater.

Tracer wire for pipe installed by direct burial will meet the following requirements: #12 AWG (0.0808" diameter) fully annealed copper wire, rated at 30 volts, insulated with a 30 mil, high density, high molecular weight polyethylene (HDPE) insulation, rated for direct burial use.

Tracer wire for pipe installed by directional drilling or jack & bore will meet the following requirements: #10 AWG (0.1019" diameter) fully annealed, high carbon 1055 grade steel, high strength solid copper-clad steel conductor (HS-CCS) rated at 30 volts, insulated with a 45 mil, high density, high molecular weight polyethylene (HDPE) insulation rated for horizontal directional drill use, average with minimum break load of 1,940 pounds.

Branch connections and tracer wire splices shall be connected together using a direct-bury wire connector filled with a dielectric silicone sealant.

Tracer wire shall be properly grounded at all dead ends and shall be achieved by use of a 1.5 pound drive-in magnesium grounding anode rod specifically manufactured for this purpose.

The tracer wire shall be installed in such a manner as to be able to properly trace all pipelines without the loss or deterioration of signal or without the transmitted signal migrating off the tracer wire. The tracer wire shall be installed as a continuous single wire. Except for approved spliced-in repair or replacement connections, tracer wire shall be continuous and without splices from each tracer wire access point.

Tracer wire shall be installed in the same trench and inside bored holes and casing with pipe during pipe installation. It shall be secured and taped to the top of the pipe and 10' intervals. Protect wire insulation from damage during installation and backfilling. Wire insulation that is broken, cut or damaged shall be replaced. If the pipe requiring tracer wire is over 8' deep, special circumstances exist and the installation method must be submitted to the Engineering Division for approval.

Provide no less than 18" of coiled wire at access points and valve boxes. A run of tracer wire must run from the main to each fire hydrant and each fire hydrant must have one wrap of the wire around the barrel located at final grade.

Where existing tracer wire is encountered on an existing utility that is being extended or tied into, the new and existing tracer wire splice shall be connected using a direct-bury wire connector. At all main end caps, a minimum of 6' of tracer wire shall be extended beyond the end of the pipe, coiled and secured to the cap for future connections and shall be properly grounded.

After all of the trench backfill operations are successfully completed, and prior to final paving, the Contractor shall perform continuity and trace tests on all newly installed tracer wire in the presence of an Inspector. If the tracer wire is found to not be continuous after testing, the Contractor shall repair or replace the failed segment of the wire and retest for continuity. Tracer wire exposed during testing shall have the insulation restored with 30 mil rubber splicing tape. The Contractor shall be responsible for all costs to confirm, locate and repair any breaks in the tracer wire identified in the continuity test.

2.5.6 SERVICE LINE LOCATION

Service lines will be located at alternating lot lines outside the sidewalk within two feet of the right-of-way line as shown on approved plans or in a grassed area behind the curb if located in other than a subdivision.

Reclaimed service line is to be located adjacent to sewer cleanouts.

2.5.7 BACKFILLED MATERIAL AND INSPECTION

All backfilling material will be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks, stones, or other material which is considered unsuitable. When backfill material is not specified on the plans, backfilling with the excavated material may be acceptable provided that such material is suitable for backfilling. Pipe should be backfilled as soon as possible to minimize the length of open trench. Pipe joints, valves, fittings, and thrust blocks will be left uncovered until inspection by the Engineering Division has been completed.

2.5.8 VALVES AND FITTINGS

All valves and fittings will be set and joined to the pipe in the proper location as shown on the plans. Valves should be installed outside of the pavement where practical. A roadway valve box will be provided for every valve. This valve box must not transmit shock or stress to the valve. Valve will have alignment ring installed and valve box centered and plumb over the wrench nut of the valve. The box cover is to be flush with the surface of the finished pavement or grade level as specified in the plans. A 24"-square concrete pad 4" in thickness will be poured around the valve box when it is located outside of pavement. A bronze or stainless steel disc will be cast into the pad for all valves 12" or larger. Valve nomenclature to be stamped into the disc will include the valve size, type, manufacturer's initials, number of turns, and direction to open the valve. (Example: 12" G.V. U.S.P. 20 c.c.w.)

All valves will be located within two feet of the tee, see detail "Gate Valve and Fitting."

When solid sleeves or couplings are used to join/tie-in pipelines, a Spacer Piece shall be installed if there is a gap in the pipeline.

2.5.9 FIRE HYDRANTS

All fire hydrants (hydrants) will be located as shown on the plans and marked on the pavement with a blue reflector. On unpaved streets, a blue reflector will be affixed to a post and placed as close to the edge of the road as feasible to be easily visible. The hydrants will be located in such a manner as to provide complete accessibility and in a manner so that the possibility of damage from vehicles or injury to pedestrians will be minimized. All hydrants must stand plumb and the bury line of the hydrant at the finished grade. Hydrants installed in State highway rights-of-way will be placed in accordance with any F.D.O.T. requirements. Contractors shall not turn or add risers to hydrants. All hydrants will be connected to the main in the manner shown on the Standard Detail Sheet. If the installation of the hydrant requires the hydrant to be greater than 40 ft. away from the fire hydrant valve, an additional valve shall be installed. If the fire hydrant valve ends up in asphalt of a major road (not subdivision) an additional hydrant valve regardless of distance shall be installed.

Continued on next sheet...

City of Cocoa, Florida
Utilities Department
Updated July 2021

NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB
DRN BY: LB
CHK BY: SN
APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD TECHNICAL PROVISIONS

DO NOT SCALE THIS DRAWING — DIMENSIONS AND NOTES TAKE PREFERENCE

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Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: C 31.0

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O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 osage utilities plan-0540.002 27-34 DETAILS.dwg Plotted: Dec 20, 2023 - 3:48pm by gmotchett

2.5.10 RESTRAINED PIPE JOINTS
The Engineer of Record shall provide a restrained joint detail on drawings submitted to the City for approval. Restraining is to apply to all new fittings installed as part of the job, including tapping saddles.

2.5.11 THRUST BLOCKS AND COLLARS
Restrained joint systems are the preferred method. Thrust blocks may only be used with the City's prior approval at bends, fire hydrants, and as specified on the plans, in accordance with the Standard Detail Sheet. Metal harnesses, tie rods, or clamps of adequate strength to prevent movement may be installed at locations where thrust blocks are not practical. Rods and clamps will be stainless steel. A 20-foot length of ductile iron pipe will be installed at all main endings and a concrete thrust collar will be poured around the pipe at a distance of 10 feet from the end of the joint. In lieu of concrete thrust collar, restrained pipe upstream of the proposed concrete thrust collar may be used.

2.5.12 JACK AND BORE, PIPE INSTALLED IN CASINGS
Pipe to be installed under pavement where open trenching is not permitted will be installed through a steel casing that has been jacked and bored. The casing pipe will be six to eight inches larger than the outside diameter of the bells on the Ductile Iron pipe. The Engineer of Record will design the casing and bore to meet FDOT or FECRR requirements.

Ductile Iron pipe of the appropriate Class will be installed in the casing. Water mains must be pushed or pulled through the casing on stainless steel casing spacers with polyethylene skids attached to the pipe with stainless steel straps. The stainless steel casing spacers with polyethylene skids will be placed in accordance with manufacturer's recommendations. Casing spacers must be manufactured by Cascade or an approved equal. Restrained joints are required on mains installed inside casings.

JACK AND BORE
J&B installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards. J&B installed under FECRR shall conform to FECRR requirements.

2.5.13 HORIZONTAL DIRECTIONAL DRILLING
Only DIP and Fusible PVC may be horizontal directional drilled (HDD) under pavement or surface waterway crossings. The HDD pipe shall only extend to 10 feet on each side of the crossing. Then the piping will change to the standard piping material.

HDD installed under FDOT roadways shall conform to the latest FDOT Road and Bridge Construction design standards.

ENGINEERING PROCEDURE HORIZONTAL DIRECTIONAL DRILLS

PRECONSTRUCTION CONFERENCE

1. A preconstruction conference will be required. The preferred attendees for the preconstruction shall be but not limited to:

   - The directional bore contractor (preferably the Field Superintendent)
   - The permitting agency
   - Engineer of Record
   - City Engineering Division Representative
   - Inspector for the project

ENGINEER OF RECORD

1. The EOR must include a scaled drawing showing the details of the directional drill on the construction drawings (i.e. profile, depth, location of existing utilities, maximum deflection angle).

2. If during construction it is determined a directional drill is required (and was not previously approved), the EOR is required to update the construction drawings and receive approval.

HDD CONTRACTOR

1. Approval required prior to the HDD, the HDD contractor shall submit a bore plan (see sample drawing in "Appendix B") to the Engineering Division for approval. The bore plan shall be a scaled drawing or computer generated drawing showing the following information but not limited to: (see drawing "Typical Bore Plan")

   - The entrance and exit location
   - Profile of the bored pipe
   - Proposed deflection angle for approach and exit
   - Documentation on the allowable max. & min. deflection for the particular pipe being used
   - All utilities including their depths and clearances from reamer
   - Width of the right of way
   - Pavement width
   - Length of the bore
   - The bore plan shall be signed by the responsible person in charge of the bore.

2. The HDD contractor shall follow the minimum clearances as shown below from the bottom of the water main to the top of the reamer:

   - Water mains 12" and greater minimum clearance is 18"
   - Water mains 10" and less minimum clearance is 12"

3. The HDD contractor will be responsible for obtaining locates for all utilities in accordance with Chapter 556 of the Florida Statutes.

4. The HDD contractor shall notify the City of Cocoa Inspection Division 48 hours in advance of the bore and notify the appropriate permitting agency per the conditions of the permit.

ENGINEERING INSPECTOR

1. An approved copy of the bore plan will be given to Engineering Inspection Division.

2. The Inspector for the project will have a copy of the bore plan at the project site.

3. Prior to the HDD the Inspector shall verify that the materials at the project site for the directional bore are in accordance with the City of Cocoa's latest technical provisions and standard details.

4. The Inspector shall verify the following prior to the commencement of the HDD:

   a. Verify that the HDD contractor has obtained his/her utility locates;
   b. Verify that all utilities have been visually spotted by the HDD contractor;
   c. Verify that the permitting agency has been notified of the HDD; and
   d. Witness the calibration of the sonde.

5. The Inspector shall remain at the project site until completion of the HDD. Any discrepancies shall be immediately reported to the Engineering Division. Once the corrective action is determined, the proper authority will be notified.

COMPLETION OF THE BORE

1. A bore log shall be submitted to the Engineering Division after completion of the bore.

2.5.14 BLOWOFFS
Flushing blow-offs are to be installed and constructed as shown on the Standard Detail Sheet. Blow-off materials include 2" brass for nipples, brass threaded fittings, 2" brass angle wheel valve, and plastic meter box (purple for reclaimed). The plastic meter box is to be installed at grade over the wheel valve. The angle wheel valve will be within six inches of finished grade and will be plugged with a brass plug. 4" blow-offs will be required on both potable water and reclaimed water mains 12" and larger and must be constructed as shown on the Standard Detail Sheet. A reclaimed tag will be installed on reclaimed main blow-offs in a reclaimed meter box.

Brass used in potable water shall meet the low lead requirements as set forth in Section 2.1.6, "Service Connections."

2.6 TIE-INS TO EXISTING SYSTEMS

2.6.1 GENERAL
The Contractor is not to operate any valve or remove any thrust block from City-owned mains except under direct supervision of an Inspector of the Engineering Division. The Contractor may need a post restraining the existing piping for the tie-in as required by the Engineering Division. All Contractors must follow the procedures listed below for connecting new mains to existing water systems.

2.6.1.1 Mains 8" and smaller
Existing tie-in valves will be operated and pressure tested to verify water tightness prior to the proposed tie-in. Existing system valves that are not water tight, shall have a new valve installed immediately adjacent (within 2') to the existing valve. The Contractor will provide a 2" tap on the new main and a 2" tap on the existing main at the tie-in valve. A 2" jumper equipped with a City supplied meter and contractor supplied backflow preventer (double check) will be installed. The jumper will be utilized for filling the main, flushing the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The proposed tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. The Engineer of Record will be required to provide an executed FDEP certificate of completion prior to clearance. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of Engineering Division.

2.6.1.2 Mains 10" and Larger
The same procedure as noted for mains 8" and smaller will be used for mains 10" and larger except that the jumper will be utilized only for filling the main, providing water for bacteriological sampling, and maintaining pressure in the main after a successful bacteriological test. The tie-in valve can be opened for flushing and during chlorination only under the supervision of the Engineering Inspection Division. The tie-in valve is not to be operated and the jumper is not to be removed until clearance has been obtained from FDEP and the City. After clearance, the tie-in valve will be opened, the jumper removed, and the main thoroughly flushed under the supervision of the Inspector. All other existing valves closed as part of the job will be opened by the contractor under the supervision of the Inspector.

2.7 TESTING

2.7.1 GENERAL
All newly installed pipe and services that have been backfilled must be tested in accordance with AWWA specification C651.

2.7.2 JUMPER METER ASSEMBLY
All filling, and flushing, must be accomplished through a jumper meter assembly. The jumper meter assembly shall consist of a meter (provided by the City, paid for by the Developer/Contractor), and a double check backflow preventer and galvanized piping (provided by the Contractor). The jumper meter assembly shall be installed by the Contractor under the direct supervision of the Engineering Division. After installation, the Contractor shall have the backflow preventer certified by a backflow technician, and a copy of the test report shall be provided to the Engineering Division.

1. A temporary jumper connection is required at ALL connections between existing active water mains and proposed new water main improvements, per the City of Cocoa Utilities Handbook. The only exception is the installation of a new fire hydrant involving a tap and using an anchoring/swivel nipple. In this case, all fittings and fire hydrant SHALL be swabbed with a 100 ppm chlorine solution prior to installation.

2. The details for filling any water main from existing active water mains and for flushing of new mains up to 8" diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size can be found in **Section 2.7.3-Flushing and Swabbing**. The jumper connection shall be maintained until after filling, flushing, testing, and disinfection of the new main has been successfully completed and clearance for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies has been received. The jumper connection shall also be used to maintain pressure in the new mains all the time after disinfection and until the FDEP clearance letter is obtained. Adequate thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651. The tapping sleeve and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per Section II of AWWA C561.

3. Flushing of 10" diameter and larger water mains may be done through the tie-in valve, under the direct supervision of the Engineering Division. The Engineering Division will be notified in writing 48 hours prior to the flushing of said mains.

   The following procedures shall be followed:

   A. The existing tie-in valves shall be operated and pressure tested in the presence of the Engineering Division or Engineer to verify water tightness prior to the proposed tie-in. Valves which are not watertight shall be replaced or a new valve installed immediately adjacent to the leaking valve.

   B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.

   - Flushing shall not be attempted during peak demand hours of the existing water main.
   - All downstream valves in the new system must be open prior to opening the tie-in valve.
   - Provide for and monitor the pressure at the tie-in point, the pressure in the existing main must not drop below 35 psi.
   - Tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is always greater than 10 psi.

4. The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation. The test shall be performed by a qualified backflow prevention technician.

5. Except as required to flush lines of greater than 8" in diameter, the tie-in valve shall remain closed. The tie-in valve shall remain closed until the new system has been cleared for use by FDEP and all other pertinent agencies.

6. Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the jumper connection. The corporation stops are to be closed and plugged with 2" brass plugs.

7. All installation and maintenance of the temporary jumper connection and associated backflow prevention device fittings, valve, etc., shall be the responsibility of the contractor.

2.7.3 FLUSHING AND SWABBING
The City will provide an adequate volume of water for the filling, flushing, and testing of mains. The Contractor will notify the Engineering Division prior to flushing or filling mains. The pressure in the City's system will be monitored during the flushing; at no time should the pressure in the City's system be allowed to drop below 35 psi. Water used during flushing will be billed to the Contractor.

The City of Cocoa Engineering Division requires all new mains regardless of size or material to be pigged/swabbed. In an effort to make sure all footages of a pipeline are pigged, the following procedures are to be used as a guide and in no way to be construed as means and methods.

The following terminology may be used in the discussion or operation of the pigging procedure.

Pigs shall be manufactured of a 2 pounds per cubic foot density open cell polyurethane foam body (swab) complete with rear polyurethane drive seal.

Pig launching station may be a "wye", "tee", or simply inserting the pig at the very beginning of the pipeline. The beginning of the pipeline is defined at the jumper assembly location.

Pig retrieval point or cannon is a "wye", "tee" or open end of pipe at which point the pig will exit the pipeline.

The pipeline will be filled through the jumper assembly the day before of the pigging operation.

The pig will be advanced through the pipeline at a rate of 2 feet per second, 80 gpm for 4"; 180 gpm for 6", 320 gpm for 8". Flow rates and jumper assemblies for mains 10" and larger will be determined by the Engineer of Record and approved by the City of Cocoa Engineering Division.

The pig retrieval point or cannon will project at least one foot above the surrounding grade. The water from the pig retrieval station discharge and its location to discharge shall be approved by the Engineering Division. The contractor will be responsible for following the National Pollutant Discharge Elimination System (NPDES) requirements to remove chlorine from discharge as well as protect retrieval area from erosion. Retrieval cannons will not be left in place. After pigging and flushing are complete, the cannon will be removed and capped below ground in accordance with Engineer of Record details or City of Cocoa Standard Details.

The contractor may insert the pig into the first section of pipe between the isolation valve and the downstream point of jumper assembly. By inserting the pig between the isolation valve and the downstream jumper assembly point it will allow the pipeline to be filled without moving the pig down the pipeline. If the pig is moved during filling operation another pig will be inserted into the pipeline. The isolation valve may be cracked open for a few seconds under the direction of the Engineering Division to move the pig past the jumper assembly downstream point so the jumper assembly can advance the pig through the pipeline.

When the pig exits the pipeline, the flushing will continue until the water is clear. A simple way to determine if water is running clear is to capture some water in a WHITE cup. If water is clear and no particles in cup then flushing is complete; if not, flushing will continue until water is clear.

2.7.4 HYDROSTATIC TEST
A blow-off or fire hydrant will be installed at the end of the pipeline under test. The line being tested will be slowly filled with water to the specified test pressure. Before applying the specified test pressure, all air will be expelled from the test section including service connections. If fire hydrants or blow-offs are not available at high elevations, taps at points of highest elevation will be made to facilitate air removal and testing. When testing is complete, the service lines installed for air removal must be removed.

The line must hold the 150-psi test pressure for a two-hour test period and must be performed under the direct supervision of the Engineering Division. Sufficient human resources are to be employed to ensure inspection. If the line fails to meet the test, it will be repaired and re-tested until the test requirements are satisfied. Line pressure will be maintained to within 5 psi of the test pressure at all times.

2.7.5 LEAKAGE TEST
A leakage test at 150 psi will be performed on all newly installed sections of pipe in accordance with AWWA C600 or C605 after installation of all service connections. Any leakage observed must be less than the following per thousand feet of pipe:

Size (in)	Allowable Leakage (gal/hour)
2	0.20
4	0.33
6	0.50
8	0.67
10	0.83
12	1.06
14	1.16
16	1.32

$L = (SD\sqrt{P}) / 148{,}000$

L = testing allowance (makeup water), in gallons per hour
S = length of pipe in feet
D = nominal diameter of pipe, in inches
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge). P has the square root taken.

On small main extensions where the allowable leakage loss cannot be reasonable measured (.25 gallons or less), NO LOSS OF PRESSURE shall be allowed.

2.8 DISINFECTION AND BACTERIOLOGICAL TESTING

2.8.1 GENERAL
The Contractor must flush potable mains and arrange for complete disinfection by chlorination in coordination with the Engineering Division. Work will conform to applicable provisions of AWWA specification C651-14, "Disinfecting Water Mains". Water with a chlorine concentration of 50 ppm will be evenly distributed throughout the pipe system and allowed to remain in the pipe for twenty-four hours. Transmission mains may be chlorinated using the "slug method". If the slug method is used, a detailed written procedure shall be submitted for approval. The main shall be dechlorinated to zero ppm chlorine before any flushing is performed. The method for dechlorination shall be approved by the Engineer of Record. After flushing, the water shall remain in the pipe for 24 hours before sampling. Service connections and tie-ins made before testing must be disinfected in accordance with AWWA specification C651. Samples will be taken by an Engineering Division approved laboratory. Two consecutive day samples are required for potable water mains. Water mains shall not be flushed between samples. The Contractor will be responsible for ALL bacteriological testing fees. Sample points are determined by the Engineer of Record and approved by FDEP. If samples taken do not demonstrate satisfactory results, re-chlorination and retesting of all sample locations is required at the Contractors expense.

CONTRACTORS WORKING ON EXISTING MAINS
When existing water mains are taken out of service by contractors, and water service to existing customers is interrupted causing a precautionary boil water notice (PBWN), the water main will be taken out of service on Monday or Tuesday. If for some reason the water main cannot be taken out of service on Monday or Tuesday, then the contractor at their expense shall have the laboratory perform bacteriological testing after normal working hours. This procedure is to lessen the time water customers are under a PBWN.

2.9 WET TAP CONNECTIONS TO EXISTING SYSTEM

2.9.1 GENERAL

Tap Being Performed	Parties Allowed to Perform the Tap
Taps 2" and smaller	• Approved tapping and line stop contractor • Contractor approved to tap mains solely for their own project - Contractor must perform 5 successful taps under the supervision of the inspection team and demonstrate possession of proper tapping equipment
Taps 2"-16"	• Approved tapping and line stop contractor
Taps 16" and greater	• Approved tapping and line stop contractor - Each tap requires independent review and approval - The tap must be performed under direct supervision of the engineering division
Taps on concrete transmission mains	• Contractor approved for taps on City of Cocoa transmission mains - Tapping plan must be submitted by the contractor prior to the tap

- On transmission mains, the approved tapping and line stop contractor will install the tapping saddle and valve. For all connections from 4"-12" the contractor may install tapping saddles under direct supervision of the Engineering Division.
- For all water main connections, the Contractor must obtain all required permits, provide a dry pit area, provide pit preparation including shoring and bracing, provide maintenance of traffic, provide all right-of-way restoration, and notify all utilities prior to construction. Connections must be completed under direct supervision of the Engineering Division.
- The list of approved contractors may be found on pg. 158.

Tapping saddles and valves supplied by the Contractor will be inspected by the Engineering Division prior to installation. The installed tapping saddle and valve must be tested with water at 100 psi for 15 minutes prior to tapping to ensure a watertight installation. Saddles installed on concrete pressure pipe will be tested 10% over line pressure. The pressure test will be performed by the Contractor and supervised by the Engineering Division. After the pressure test of the saddle has been completed, an Approved Tapping Contractor can tap the main.

2.9.2 TAPPING AND LINESTOP PROCEDURES
- ALL TAPS or LINESTOPS on City of Cocoa potable, reclaimed, and wastewater mains will be performed by an Approved Tapping Contractor.*
- Absolutely NO taps or linestops will be performed on Friday or any day preceding a holiday.
- Approved Contractors must disinfect tapping machine with AWWA approved disinfectant. This will be witnessed by the Inspector.
- The Contractor's tapping or linestop machines will be in good working order with appropriate bits and shell cutters for the type of pipe being worked on (i.e. shellcutter for PVC).**
- When taps or linestops are installed on Transmission Mains (> 12"), a preconstruction meeting will be held with the tapping contractor prior to ANY work being performed. The meeting may be held at the job site.
- Taps and linestops on the Utilities concrete pressure mains will be a two (2) day process and will require a pre-construction meeting. Grout submittal will need to be submitted for approval prior to work. Day one the saddle is installed and grouted, Day two tighten straps, cut pre-stressing wires, install throat and valve. Pressure test on saddle is 10% over line pressure for 30 minutes. After successfully completing pressure test, tap can be made.
- Toggle bolts will be required for PCCP taps to assure the entire coupon remains intact. The coupon must be provided to the City.
- ALL excavations must conform to current OSHA Trench Safety Act.
- The City of Cocoa reserves the right to remove any contractor from the approved list for any work considered substandard.

* Tap or linestop to include: Material, installation, labor, drilling, and testing

** Bit, boring bar, and adaptor

2.10 FINAL CLEAN-UP AND ACCEPTANCE

2.10.1 GENERAL
Upon completion of the work and before acceptance by the Engineering Division, the Contractor will meet all permit conditions, remove all debris, and complete sodding, sprigging, or seeding if required by the plans. The Contractor will leave all areas affected by operations in a neat and presentable condition.

Acceptance of completed work by the City will be contingent on the following work items completed to the satisfaction of the Engineering Division.

- Pressure Test
- Bacteriological Testing
- Restoration
- Payment of fees
- Approved As-Builts
- Easements
- Bill of Sale
- Fire line DCDA certification, as needed
- Final Inspection

2.11 FIRE SERVICE

2.11.1 GENERAL
All Fire Lines shall be installed by a licensed Fire Line Contractor in accordance with Florida Statute Chapter 633 and Rule Chapter: 69A-46. Where wet pipe sprinkler service is used, an RPDA or DCDA will be installed in accordance with the "Backflow Prevention and Cross-Connection Control" Section of the Utilities Handbook and as described in the "City of Cocoa Cross Connection Control Program Manual".

Fire line backflow preventer assemblies shall be installed in non-traffic areas. Four to six bollards may be required.

2.12 CONNECTION OF BUILDINGS OVER FOUR FLOORS

2.12.1 GENERAL
Connection of domestic water supply systems serving buildings over four floors in height to the City's water distribution system will be subject to the following requirements:

- A fixture unit analysis will be performed by the Owner's engineer to determine peak domestic flow requirements. This analysis is to be provided to the Engineering Division.
- A water meter and a reduced pressure backflow preventer, sized in accordance with the domestic flow requirements, will be installed above ground at the developer's expense.
- Upon written request, the City will provide the site engineer with the minimum expected system pressure. The site engineer will be responsible for providing this information to the architect and building owner. Means for providing an adequate supply of domestic water and fire protection to all parts of the building during periods of minimum pressure will be the responsibility of the building Architect or Engineer of Record.
- Repair costs for damage to the water meter caused by flows exceeding its rated capacity will be charged to the customer.

2.13 BACKFLOW PREVENTERS

2.13.1 GENERAL
All connections to the City of Cocoa potable water system shall contain a backflow preventer assembly per the Standard Details in "Appendix B." Backflow preventer requirements for each service type are described in the "City of Cocoa Cross Connection Control Program Manual" and are summarized in Paragraph 2.1.3, "Backflow Preventers" and "Appendix A" of this document.

2.14 RECORD DRAWINGS

2.14.1 GENERAL
Record drawings are required for all systems to be accepted by the Engineering Division. Record drawings will be prepared by a surveyor or an engineer registered in the State of Florida and will contain the following information:

- Location of all valves, service lines, fittings, and fire hydrants using at least two ties to permanent points (manholes, curbs, or storm water inlets). An acceptable station and offset system may be used for service lines and fittings only.
- Location of mains from property easement lines or edge of pavement at intervals of 300 feet.
- Elevations to the top of the water line at intervals of 300 feet and at all drainage and sewer main crossings. Benchmark to be shown on record drawings.
- Separation between reclaimed water or force mains and water mains, if they are installed within 10 feet of water mains.
- Water main material and distance of mains from buildings or structures within 20 feet of the water main.
- Distance from hydrant to hydrant valve.
- Pertinent easement information.
- A minimum of two benchmarks with northings and eastings in NAD83 or NAVD88 that are clearly labelled on each individual sheet. The benchmarks shall be placed away from the center of the drawing in opposite corners.
- Certification by the surveyor or Engineer of Record accepting responsibility for accuracy of information supplied on the record drawings and a statement certifying that all mains are within easements and/or public right-of-way.
- Certification by the EOR certifying that the potable water and reclaimed system has been constructed in substantial conformance with approved construction plans and specifications and that all mains are within easements and/or public rights-of-way.
- The name "City of Cocoa" must appear on all record drawings survey information.
- The page number in the format "page *x* of *y*" needs to be on each page where *x* is the specific page number and *y* is the total number of pages.

Record drawings will be drawn at an engineering scale that is legible and readable as determined by City staff. Areas requiring additional detail may be enlarged as necessary. Right-of-way, easements, and lot lines will be accurately shown. After the surveyor or engineer has certified the locations, the engineer will certify on DEP Form 62-555.900(9) that the system depicted on the record drawing was constructed in substantial conformance with approved plans and will function as intended. Lot, block numbers, and street names will be included. Provide two (2) sets of signed and sealed record drawings and one (1) digital file including all reference files in .DWG format (AutoCAD 2013 or higher).

NOTES:
1. All potable water & reclaimed water construction shall comply with the City of Cocoa Utilities Technical Provisions & Standard Details, latest edition.
2. Not all details may be required. Refer to the plan sheets for project specific requirements.
3. All materials are to be in accordance with City of Cocoa Utilities Department Technical Provisions and Standard Details, Appendix A: Approved Materials, which can be found on the City of Cocoa website: www.cocoafl.org/250/Engineering

City of Cocoa, Florida
Utilities Department
Updated July 2021

NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STANDARD TECHNICAL PROVISIONS

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: **C 32.0**

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

GENERAL

1. ALL CONSTRUCTION SHALL CONFORM TO FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION (LATEST EDITION), BREVARD COUNTY UTILITY SERVICES CRITERIA FOR WATER AND SANITARY SEWER SYSTEMS, AND BREVARD COUNTY CODE OF ORDINANCES.

2. ISSUANCE OF CERTIFICATE OF COMPLETION: UPON COMPLETION OF CONSTRUCTION OF THE PROJECT AND PRIOR TO SCHEDULING OF THE FINAL INSPECTION, THE APPLICANT OR THEIR AUTHORIZED REPRESENTATIVE, SHALL PROVIDE THE FOLLOWING DOCUMENTATION TO BREVARD COUNTY PUBLIC WORKS ENGINEERING:

   a. A CERTIFICATE OF COMPLETION - REQUEST FOR FINAL INSPECTION FORM. THE FORM MUST BE FROM A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA WITH THEIR SEAL AFFIXED. THE FORM CERTIFIES THAT THE IMPROVEMENTS HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS.

   b. A COMPLETE SET OF TESTING REPORTS FOR ALL TESTS PERFORMED ON THE PROJECT WITHIN THE COUNTY RIGHT-OF-WAY AND/OR FOR ALL SUBDIVISION CONSTRUCTION REGARDLESS OF PUBLIC OR PRIVATE.

   c. THREE SETS OF AS-BUILT DRAWINGS MEETING THE REQUIREMENTS OF SECTION 61G17, F.A.C., AND SIGNED AND SEALED BY A SURVEYOR LICENSED IN THE STATE OF FLORIDA. AT A MINIMUM, ALL AS-BUILT DRAWINGS MUST INCLUDE:

      i. ROAD/PAVEMENT ELEVATIONS; ROADWAY CROSS SLOPES; PAVEMENT WIDTH; PAVEMENT SPOT ELEVATIONS NECESSARY TO CONFIRM STORMWATER DRAINAGE PATTERNS AT INTERSECTIONS AND SIDEWALKS; CURB SLOPES;

      ii. STORMWATER PIPE SIZES AND INVERT ELEVATIONS; LOCATION OF OUTFALL STRUCTURE(S) WITH AS-BUILT ELEVATIONS FOR ALL CONTROL STRUCTURE & SKIMMER ELEVATIONS SHOWN ON THE APPROVED PLANS TOP OF BANK, GRADE BREAKS, BOTTOM ELEVATIONS FOR ALL STORMWATER PONDS OR BERM AREAS;

      iii. ANY OTHER ADDITIONAL AS-BUILT DATA THAT IS APPLICABLE TO THE PROJECT TO ENSURE COMPLETION IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.

   d. PIPE INSPECTION VIDEO PER FDOT REQUIREMENTS. (IF APPLICABLE PER NOTE 4 OF DRAINAGE NOTES).

   e. IF A MUNICIPALITY IS ACCEPTING A PUBLIC WATER AND/OR SEWER SYSTEM, THERE MUST BE DOCUMENTATION INDICATING MUNICIPAL ACCEPTANCE OF THE CONSTRUCTION OF THE WATER AND/OR SEWER SYSTEM.

   f. PUBLIC WORKS ENGINEERING WILL NOT SIGN OFF ON A TEMPORARY CERTIFICATE OF OCCUPANCY (TCO) FROM THE BREVARD COUNTY BUILDING DEPARTMENT UNTIL THE AS-BUILT DRAWINGS AND OTHER DOCUMENTATION LISTED ABOVE HAVE BEEN SUBMITTED AND REVIEWED BY PUBLIC WORKS ENGINEERING.

   g. PROJECTS CONNECTED TO THE BREVARD COUNTY WATER, SANITARY SEWER, AND/OR RECLAIMED WATER SYSTEMS MUST OBTAIN FINAL APPROVAL FOR THE PROJECT DIRECTLY FROM BREVARD COUNTY UTILITY SERVICES AS OUTLINED IN THE BREVARD COUNTY CRITERIA FOR WATER AND SANITARY SEWERAGE SYSTEMS.

3. UPON APPROVAL OF FINAL INSPECTION, AN ENGINEER'S CERTIFIED COST ESTIMATE WILL BE REQUIRED ALONG WITH A 2-YEAR MAINTENANCE BOND FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT-OF-WAY AS REQUIRED BY CHAPTER 86 OF THE BREVARD COUNTY CODE OF ORDINANCES. THE MAINTENANCE BOND SHALL BE 25% OF THE ENGINEER'S CERTIFIED COST ESTIMATE.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO THE COUNTY INFRASTRUCTURE DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE STRUCTURAL INTEGRITY OF THE ROADWAY ASPHALT, BASE, AND STABILIZED SUB-BASE, SIDEWALKS, STORMWATER DRAINAGE SYSTEM, DRAINAGE STRUCTURES, CURBS, GROUND COVER, WATER SYSTEMS, SANITARY SEWER SYSTEMS, AND RECLAIMED WATER SYSTEMS. ALL REPAIRS SHALL BE COMPLETED IN ACCORDANCE WITH FDOT AND BREVARD COUNTY STANDARDS. ALL REPAIRS SHALL BE COMPLETED PRIOR TO THE FINAL INSPECTION OF THE PROJECT. SIDEWALK PATCHING WILL NOT BE ACCEPTABLE.

5. A VISUAL OR MECHANICAL INTERIOR INSPECTION OF EXISTING CULVERTS WILL BE REQUIRED PRIOR TO THE FINAL INSPECTION.

6. ALL DISTURBED AREAS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE SODDED. SEED & MULCH IS NOT ACCEPTABLE. SOD SHALL MATCH EXISTING SOD TYPE. BAHIA SOD SHALL BE USED IN AREAS ADJACENT TO VACANT PROPERTY. DISTURBED AREAS OUTSIDE THE CONSTRUCTION LIMITS WILL BE SODDED AT THE CONTRACTOR'S EXPENSE.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL SURVEY MONUMENTATION. ANY SURVEY MONUMENTATION DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A FLORIDA LICENSED SURVEYOR PRIOR TO ISSUANCE OF A CERTIFICATE OF COMPLETION FOR THE PROJECT.

8. REGARDLESS OF PRIVATE OR PUBLIC DEDICATION, THERE SHALL BE NO UTILITY CONNECTIONS OR METER BOXES WITHIN PROPOSED OR EXISTING SIDEWALKS OR DRIVEWAY AREAS.

9. ALL DIRECTIONAL BORES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 555, DIRECTIONAL BORES AND THE FDOT UTILITIES ACCOMMODATION MANUAL.

10. ALL DIRECTIONAL BORES MUST EXTEND A MINIMUM OF EIGHT (8) FEET PAST THE EDGE OF PAVEMENT OF ANY ROADWAY OR COMMERCIAL DRIVEWAY. FOR RESIDENTIAL DRIVEWAYS AND SIDEWALKS, THE BORE MUST EXTEND THREE (3) FEET PAST THE EDGE ON EITHER SIDE.

11. THE CONTRACTOR SHALL CONTROL DUST GENERATED BY THIS PROJECT AT ALL TIMES, SHALL PROVIDE STREET SWEEPING AS REQUIRED, AND PREVENT SEDIMENT FROM ENTERING INTO THE EXISTING DRAINAGE SYSTEM AT ALL TIMES.

12. THE CONTRACTOR SHALL NOT EXCEED NOISE LEVELS AS SPECIFIED IN BREVARD COUNTY CODE OF ORDINANCES SECTION 62-2271.

13. ALL STRIPING AND PAVEMENT MARKINGS IN THE COUNTY RIGHT-OF-WAY SHALL BE THERMOPLASTIC AND SHALL NOT BE APPLIED UNTIL A MINIMUM OF 30 DAYS AFTER THE PLACEMENT OF THE FINAL ASPHALT SURFACE. IN THE INTERIM, STRIPING SHALL BE PAINT AND ANY REQUIRED RPM'S INSTALLED PER THE PLANS. DO NOT STRIPE ACROSS MANHOLE LIDS OR DRAINAGE GRATES.

14. REFLECTIVE PAVEMENT MARKINGS (RPM'S) SHALL BE INSTALLED IN ALL LOCATIONS AS REQUIRED BY FDOT DESIGN STANDARD (LATEST EDITION).

15. ANY PAVEMENT MARKINGS AND RPM'S THAT ARE DESTROYED, DAMAGED, OR DIMINISHED BY CONSTRUCTION ACTIVITIES FOR UP TO 500 FEET IN EITHER DIRECTION BEYOND THE LIMITS OF CONSTRUCTION SHALL BE REPLACED OR REFURBISHED BY THE CONTRACTOR.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE COUNTY RIGHT-OF-WAY FOR THE DURATION OF CONSTRUCTION. AT A MINIMUM, THE CONTRACTOR SHALL MOW THE RIGHT-OF-WAY ON AN AS NEEDED BASIS AND MAINTAIN THE DRAINAGE CONVEYANCE SYSTEM. ADDITIONAL MAINTENANCE MAY BE REQUIRED ON A CASE BY CASE BASIS.

TRAFFIC CONTROL

1. MOT PLAN REVIEW: A PROJECT-SPECIFIC MAINTENANCE OF TRAFFIC (MOT) PLAN OR ROADWAY CLOSURE MOT/DETOUR PLAN MUST BE SUBMITTED TO BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) FOR APPROVAL A MINIMUM OF TWO (2) WEEKS PRIOR TO START OF CONSTRUCTION. THE MOT PLAN SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARD INDEX 600 SERIES,(LATEST EDITIONS). PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS OR VMS) MAY BE REQUIRED TO SUPPLEMENT THE STANDARD MOT SIGNAGE.

2. ROAD CLOSURES: THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY, FOR EACH PHASE OF CONSTRUCTION, IF APPLICABLE. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. CERTAIN LOCATIONS MAY REQUIRE WORK IN THE RIGHT-OF-WAY TO BE PERFORMED AT NIGHT ONLY.

3. LANE CLOSURES: THE CONTRACTOR SHALL NOTIFY BREVARD COUNTY TRAFFIC OPERATIONS (321-633-2077) A MINIMUM OF ONE (1) WEEK IN ADVANCE OF THE PROPOSED START DATE OF CONSTRUCTION WITHIN THE RIGHT-OF-WAY. CONSTRUCTION SHALL NOT BEGIN UNTIL THE MOT PLAN IS APPROVED AND NOTIFICATIONS HAVE BEEN SENT TO AFFECTED AGENCIES. NO LANE CLOSURES WILL BE PERMITTED DURING PEAK HOUR TRAFFIC VOLUMES.

4. ALL TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF THE MUTCD FOR STREETS AND HIGHWAYS, FDOT STANDARDS (LATEST EDITIONS), AND BREVARD COUNTY LAND DEVELOPMENT EXHIBIT #26.

DRAINAGE - ROADWAYS

1. ALL DRAINAGE SYSTEM CONSTRUCTION SHALL CONFORM TO FDOT STANDARD SPECIFICATIONS AND FDOT DESIGN STANDARDS, (LATEST EDITIONS).

2. ALL RETICULINE STEEL GRATES SHALL BE HOT DIPPED GALVANIZED AND HAVE A TRAFFIC BEARING H-20 LOAD RATING.

3. ALL GRATES UTILIZED WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE TRAFFIC BEARING H-20 LOADING.

4. ALL STORMWATER PIPING WITHIN THE ROAD RIGHT-OF-WAY, REGARDLESS OF PUBLIC OR PRIVATE, OR STORMWATER PIPING THAT CONVEYS STORMWATER UNDER THE ROADWAY BETWEEN STORMWATER TREATMENT PONDS, SHALL BE INSPECTED PER SECTIONS 430-4.8, 430-4.8.1, AND 430-4.8.2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION). A COPY OF THE PIPE VIDEO SHALL BE PROVIDED TO THE COUNTY AS PART OF THE SUBMITTAL OF THE CERTIFICATION OF COMPLETION REQUEST FOR FINAL INSPECTION. THE COUNTY SHALL BE NOTIFIED ONE WEEK PRIOR TO THE START OF THE PIPE VIDEO INSPECTION PROCESS.

5. ALL OPEN CUTS SHALL CONFORM TO LAND DEVELOPMENT EXHIBIT #25. FOR ALL OPEN CUTS, THE FLOWABLE FILL AND TEMPORARY ASPHALT SHALL BE INSTALLED WITHIN TWO (2) DAYS OF THE EXCAVATION (UNLESS OTHERWISE APPROVED IN WRITING BY BREVARD COUNTY PUBLIC WORKS ENGINEERING). PERMANENT ASPHALT INCLUDING MILLING AND RESURFACING, IF NEEDED, SHALL BE COMPLETED WITHIN THIRTY (30) DAYS OF EXCAVATION.

6. THE CONTRACTOR SHALL REMOVE THE SHOULDER OF THE ROADWAY TO A POINT WHERE THE BASE MATERIAL OF THE EXISTING ROADWAY MEETS THE MINIMUM THICKNESS OF THE PROPOSED ROADWAY/COMMERCIAL DRIVEWAY CONNECTION.

CONCRETE PAVING AND SIDEWALK

1. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER FDOT INDEX 515 AND/OR BREVARD COUNTY STANDARD EXHIBITS UNLESS OTHERWISE NOTED.

2. ALL CONCRETE SHALL MEET FDOT DESIGN MIX AND SPECIFICATIONS. CURING METHOD SHALL BE IN ACCORDANCE WITH THE FDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,(LATEST EDITION).

3. ALL SIDEWALKS WITHIN THE COUNTY RIGHT-OF-WAY OR WITHIN A PUBLIC SIDEWALK EASEMENT SHALL BE CONSTRUCTED OF 6-INCH THICK, 3000-PSI CONCRETE WITH FIBER MESH REINFORCEMENT. CONCRETE SIDEWALKS (OR PEDWAYS) AND CONCRETE DRIVEWAY APRONS SHALL BE CONSTRUCTED OVER SOILS COMPACTED TO 98% DENSITY, OF AASHTO T -180. SHOULD EXISTING SOILS BE FOUND UNSUITABLE FOR COMPACTION, ADDITIONAL COMPATIBLE MATERIALS SHALL BE BROUGHT TO THE SITE FOR USE AS SUBGRADE. ALTERNATE METHODS OF COMPACTION MAY BE REQUIRED TO AVOID DAMAGE TO SURROUNDING PROPERTIES.

4. CONSTRUCT SIDEWALK JOINTS PURSUANT TO FDOT INDEX 310 (LATEST EDITION). EXPANSION JOINTS SHALL BE EVERY 50 FEET, AND BETWEEN NEW AND OLD CONCRETE.

5. TWO BY FOUR FORM BOARDS SHALL NOT BE USED FOR SIDEWALK/DRIVEWAY CONSTRUCTION. FORM BOARDS SHALL MATCH PROPOSED CONCRETE THICKNESS. SLIP FORMS SHALL NOT BE USED FOR SIDEWALK CONSTRUCTION. FIXED FORMWORK SHALL BE REQUIRED PER FDOT INDEX 300.

6. THE CONTRACTOR SHALL PROVIDE A 3-FOOT CURB TRANSITION AT ALL CURB TERMINATIONS.

7. ALL SIDEWALK AND ACCESS RAMP CONSTRUCTION SHALL COMPLY WITH THE DEPARTMENT OF JUSTICE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, FDOT DESIGN STANDARDS (LATEST EDITION), AND BREVARD COUNTY DEVELOPMENT REQUIREMENTS.

ASPHALT PAVING AND TESTING

THE FOLLOWING TESTING REQUIREMENTS APPLY TO:

   a. ALL PUBLIC AND PRIVATE SUBDIVISION PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT;

   b. ALL SITE PLAN PROJECTS PERMITTED THROUGH BREVARD COUNTY PLANNING AND DEVELOPMENT REQUIRING WORK IN THE COUNTY RIGHT-OF-WAY;

   C. ALL PROJECTS PERMITTED THROUGH BREVARD COUNTY PUBLIC WORKS FOR WORK WITHIN THE COUNTY RIGHT-OF-WAY.

SECTIONS WITHIN THE FDOT STANDARD SPECIFICATIONS LIMITING TESTING REQUIREMENTS BASED ON LOT SIZE, SUB-LOT SIZE, TONNAGE, MINIMUM THICKNESS, OR SPREAD RATE WILL NOT APPLY TO THE PROJECTS LISTED ABOVE. AT A MINIMUM, ONE SET OF TESTS WILL BE REQUIRED FOR ALL PAVING PROJECTS LARGER THAN 50 TONS TOTAL AND ADDITIONAL TESTING MAY BE REQUIRED ON A CASE BY CASE EVALUATION OF THE PROJECT. TESTING REQUIREMENTS AT THE ASPHALT PLANT WILL NOT APPLY.

FOR S-TYPE ASPHALT AS SPECIFIED IN THE 2000-2004 FDOT STANDARD SPECIFICATION:

1. THE CONTRACTOR SHALL PROVIDE A DESIGN MIX SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA AND APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 331-4 (2000). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE EXTRACTION/GRADATION TESTS IN ACCORDANCE WITH SECTION 331-4.4.2 (2000).
3. THE CONTRACTOR SHALL PROVIDE MARSHALL STABILITY TESTING IN ACCORDANCE WITH SECTION 331-5.5.1 (2000).
4. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-13 (2000).
5. THE CONTRACTOR SHALL PROVIDE SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-13.3 (2000).
6. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS PER SECTION 330-2.2 ROADWAY, (2004) AND DENSITY PER SECTION 330-11, TABLE 330-3 (2000).
7. ASPHALT TEST RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.

FOR SUPERPAVE (SP) ASPHALT AS SPECIFIED IN THE 2017 FDOT STANDARD SPECIFICATION:

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 334-2 & 334-3 (2017). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 334-5 (2017) HOWEVER, THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 334-3, 334-4, 334-5, AND 334-5.2.3 (2017).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2017) WILL NOT BE ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2017).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2017).

FOR FRICTION COURSE FC-5 AS SPECIFIED IN THE 2017 FDOT STANDARD SPECIFICATION:

1. THE CONTRACTOR SHALL PROVIDE PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2017). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2017). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2017).
4. QUALITY CONTROL CORE BORINGS SHALL BE OBTAINED FOR THICKNESS TESTING USING SECTION 334-5.2.3 (2017).
5. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH SECTION 330-12 (2017).

FOR FRICTION COURSES FC-9.5 & FC-12.5 AS SPECIFIED IN THE 2017 FDOT STANDARD SPECIFICATIONS:

1. THE CONTRACTOR SHALL PROVIDE AN FDOT APPROVED DESIGN MIX, APPROVED BY THE ENGINEER OF RECORD FOR THE PROJECT, TO PUBLIC WORKS ENGINEERING FIVE BUSINESS DAYS PRIOR TO PAVING. THE MIX DESIGN SHALL MEET FDOT MINIMUM REQUIREMENTS AS OUTLINED IN SECTION 337-4 (2017). DESIGN MIXES BY FDOT CERTIFIED MIX DESIGNERS THAT ARE NOT FDOT APPROVED WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL PROVIDE GRADATION AND BINDER CONTENT TESTING IN ACCORDANCE WITH SECTION 337-5 & 337-6 (2017). THE SAMPLE(S) MAY BE TAKEN AT THE PROJECT LOCATION IN LIEU OF AT THE ASPHALT PLANT, AS SPECIFIED. RESULTS MUST BE PROVIDED TO THE COUNTY WITHIN ONE WEEK AFTER THE COMPLETION OF PAVING.
3. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL, DENSITY, AND THICKNESS TESTING IN ACCORDANCE WITH SECTIONS 337-1, 337-3, 337-4, 337-6, 337-8, AND 334-5.2.3 (2017).
4. ASPHALT TESTING RESULTS FOR EACH CORE TAKEN ARE REVIEWED ON AN INDIVIDUAL BASIS FOR THICKNESS AND DENSITY. THICKNESS AND DENSITY AVERAGES, AS NOTED IN TABLE 334-5, NOTE 2, OF SECTION 334-5 (2017) WILL NOT ACCEPTED. NO UNDER TOLERANCE FOR THE THICKNESS OF EACH ASPHALT CORE WILL BE ALLOWED.
5. PAVEMENT SURFACE SHALL MEET ALL REQUIREMENTS SPECIFIED IN SECTION 330-12 (2017).
6. THE CONTRACTOR SHALL PROVIDE QUALITY CONTROL SURFACE TOLERANCE TESTING FOR ROADWAYS WITH DESIGN SPEEDS OF 35 MPH OR GREATER IN ACCORDANCE WITH 330-12 (2017).

CONCRETE BOX CULVERT NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH FDOT DESIGN STANDARDS (LATEST EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND BREVARD COUNTY STANDARDS.
2. PRIOR TO START OF CONSTRUCTION, THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STRUCTURAL ENGINEERING DRAWINGS (SIGNED & SEALED BY A PROFESSIONAL ENGINEER LICENSED & REGISTERED IN THE STATE OF FLORIDA) FOR ALL COMPONENTS OF THE CONCRETE BOX CULVERTS, INCLUDING WINGWALLS, TOE SLAB & CUTOFF WALLS, AND HEADWALLS. THE DRAWINGS SHALL INCLUDE QUANTITIES TABULATIONS FOR CLASS IV CONCRETE (CUBIC YARDS), AND REINFORCING STEEL (POUNDS). THE DESIGN MUST BE BASED ON FDOT'S LOAD & RESISTANCE FACTOR DESIGN (LRFD) PROGRAM . SEPARATE DRAWINGS ARE REQUIRED FOR ALL WINGWALLS, TOE SLABS & CUTOFF WALLS, AND HEADWALLS, WHICH MUST BE CAST-IN-PLACE PER FDOT SPECIFICATIONS.
3. ALL BOX CULVERT MATERIALS THAT ARE TO BE INSTALLED UNDER ROADWAYS AND/OR DRIVEWAYS ARE TO BE DELIVERED TO SITE (AND PASS INITIAL INSPECTIONS) PRIOR TO START OF DEMOLITION OF EXISTING SYSTEM.
4. CONCRETE (PRECAST OR CAST-IN-PLACE) REQUIREMENTS: CLASS IV (5500 PSI).
5. REINFORCING STEEL REQUIREMENTS: ASTM A615 GRADE 60 DEFORMED BAR UNLESS OTHERWISE NOTED, WITH A MINIMUM CLEARANCE OF 3" (THREE INCHES), UNLESS OTHERWISE SHOWN. EQUAL AREA SUBSTITUTION OF WELDED WIRE (WWR) REINFORCEMENT IS PERMITTED.
6. REFER TO FDOT INDEX 292 FOR PRECAST CONCRETE BOX CULVERT SLAB & WALL THICKNESSES, REINFORCEMENT AREAS, GENERAL NOTES (SHEET 2 OF 14), AND WELDED WIRE REINFORCEMENT BENDING DIAGRAMS (SHEET 14 OF 14).
7. REFER TO FDOT INDEX 289 FOR CONCRETE BOX CULVERT DETAILS RELATED TO LRFD.
8. REFER TO FDOT INDEX 291 FOR SUPPLEMENTAL DETAILS FOR PRECAST CONCRETE BOX CULVERTS.
9. IF REQUIRED, BY-PASS PUMPING AND/OR PIPING SHALL BE APPROVED BY BREVARD COUNTY PUBLIC WORKS PRIOR TO THE START OF CONSTRUCTION.

PROJECT NAME.DWG	DATE:	REVISION:	BY:
DESIGNED/DRAWN BY: JB	1.	FOR DISTRIBUTION 10-10-12	
CHECKED BY: RBS	2.		
	3.		
	4.		

PREPARED BY: PUBLIC WORKS DEPARTMENT
ENGINEERING PROGRAM
BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS
2725 JUDGE FRAN JAMIESON WAY, RM. 204, BLDG. A, VIERA, FL 32940
Ph. (321) 637-5437, Fx. (321) 633-2083

DATE: OCTOBER 2012

APPROVED BY:
RICHARD B. SZPYRKA, P.E.
ENGINEERING PROGRAM MANAGER

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

SHEET 1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

BREVARD COUNTY PUBLIC WORKS ENGINEERING STANDARD DEVELOPMENT NOTES

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

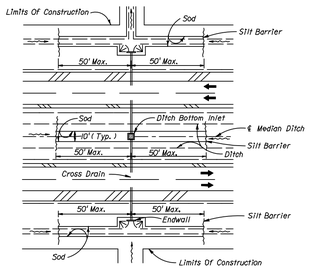
DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM
DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

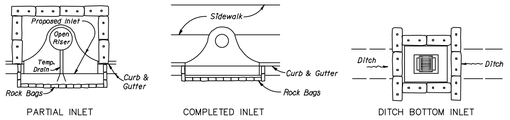
Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: C 33.0

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 27-34 DETAILS.dwg Plotted: Dec 20, 2023 - 3:48pm by gmotchett

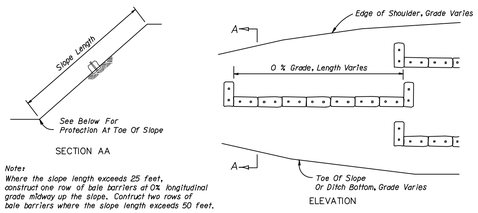


DITCH INSTALLATIONS AT DRAINAGE STRUCTURES

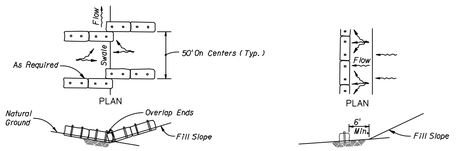


PARTIAL INLET COMPLETED INLET DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

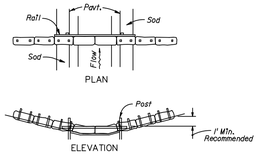


ALONG FILL SLOPE

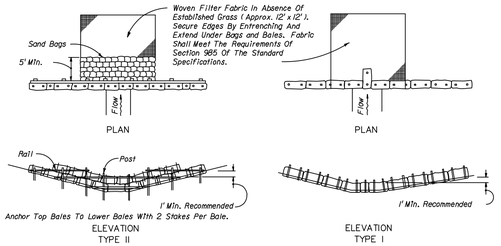


AT TOE OF SLOPE

BARRIERS FOR FILL SLOPES



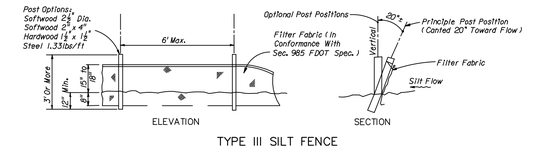
SYNTHETIC BALES OR BALE TYPE BARRIERS FOR PAVED DITCHES



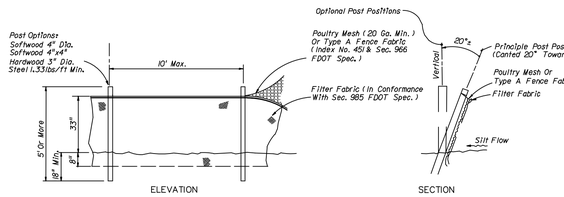
SYNTHETIC BALES OR BALE TYPE BARRIERS FOR UNPAVED DITCHES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

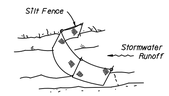
1. *Type I and II Synthetic Barrier should be spaced in accordance with Chart 1, Sheet 1.*
2. *Bales shall be anchored with 2 - 1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.*
3. *Rails and posts shall be 2" x 4" wood. Other materials providing equivalent strength may be used if appoved by the engineer.*
4. *Adjacent bales shall be butted firmly together.*
5. *Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.*
6. *Bales to be paid for under the contract unit price for Synthetic Bales, L.F. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sand bags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.*



TYPE III SILT FENCE



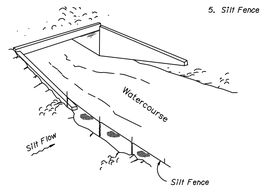
TYPE IV SILT FENCE

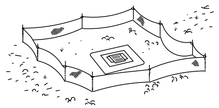


Silt fence protection in ditches with intermittent flow

NOTES FOR SILT FENCES

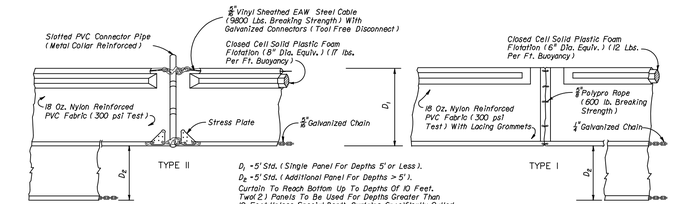
1. *Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt Fence shall be in accordance with Chart 1, Sheet 1.*
2. *Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detailed water may back into travel lanes or off the right of way.*
3. *Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.*
4. *Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.*
5. *Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).*





Silt fence protection around ditch bottom inlets

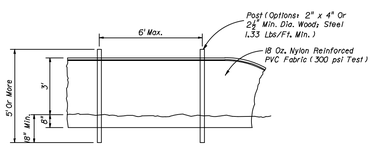
SILT FENCE APPLICATIONS



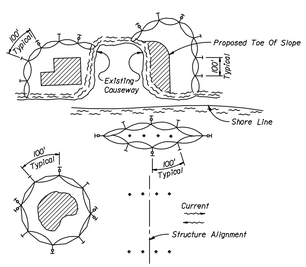
D_1 - 5' Std. (Single Panel For Depths 5' or Less).
D_2 - 5' Std. (Additional Panel For Depths > 5').
Curtain To Reach Bottom Up To Depths Of 10 Feet. Twol 2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

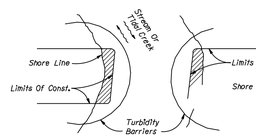


STAKED TURBIDITY BARRIER



LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

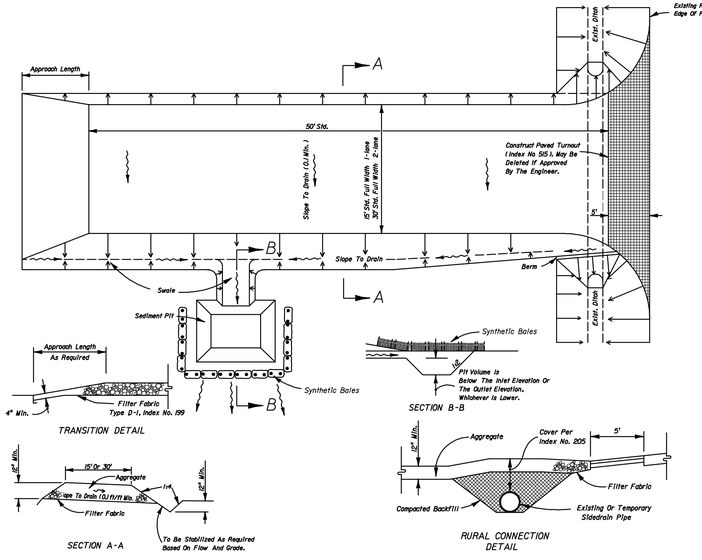


NOTES FOR TURBIDITY BARRIERS

1. *Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.*
2. *Number and spacing of anchors dependent on current velocities.*
3. *Deployment of barrier around pile locations may vary to accommodate construction operations.*
4. *Navigation may require segmenting barrier during construction operations.*
5. *For additional information see Section 104 of the Standard Specifications.*

Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay Item (s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS



GENERAL NOTES

1. *A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where offsite tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.*
2. *The Contractor may propose an alternative technique to minimize offsite tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.*
3. *All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.*
4. *Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size "1". If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.*
5. *The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:*

   15' x 50' = 100 ft³ 30' x 50' = 200 ft³

   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, hay bales or silt fence shall be placed along the entire length.
6. *The swale ditch draining the STPD shall have a 0.2% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.*
7. *Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.*
8. *The STPD shall be maintained in a condition that will allow it to perform its function. To prevent offsite tracking, the STPD shall be rinsed daily when in use (to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.*
9. *A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD, including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or bale type shall be paid for under the contract unit price Synthetic Bales, L.F. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.*
10. *The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and exiting vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.*

SOIL TRACKING PREVENTION DEVICE TYPE A

NOTE
Contractor to provide erosion and sediment control in conformance with the "Erosion and Sediment Control Designer and Reviewer Manual" by FDOT/FDEP (July 2013).

NOTE
Contractor is responsible for obtaining the FDEP-NPDES Notice of Intent for the Temporary Construction Discharge Permit, including preparation of the SWPP Plan, and for conducting all required inspections and completing all reports associated with this construction permit.

NO.	DATE	REVISION DESCRIPTION	BY
7	12/20/23	COCOA UTILITIES COMMENTS	GM
6	06/15/23	BREVARD COUNTY COMMENTS	GM
5	05/16/23	BREVARD COUNTY COMMENTS	GM
4	03/09/23	INTERNAL REVIEW	GM
3	02/13/23	COCOA UTILITIES COMMENTS	GM
2	12/15/22	COCOA UTILITIES COMMENTS	GM
1	11/03/22	COCOA UTILITIES COMMENTS	LB

DSN BY: LB | DRN BY: LB | CHK BY: SN | APPR BY: MEP

CONSTRUCTION PLANS FOR
OSAGE/ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA, FLORIDA

STORMWATER POLLUTION PREVENTION PLAN

DO NOT SCALE THIS DRAWING - DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
100 Parnell Street Suite A, Merritt Island, FL 32953
Phone:321.453.0010 WWW.DRMP.COM

DRMP, Inc.

JUAN JOSE GONZALEZ LICENSE No. 84538 STATE OF FLORIDA PROFESSIONAL ENGINEER

Juan Jose Gonzalez, P.E.
State of Florida # 84538

PROJECT NUMBER: 21-0540.002
SCALE: AS SHOWN
DATE: July 22, 2022
SHEET: **C 34.0**

O:\merritt_island\Dwg\eng 4000-4999\412401 lakes at cocoa grove - 21-0569.000 drmp\21-0540.002 osage utilities plan\21-0540.002 27-34 DETAILS.dwg Plotted: Dec 20, 2023 - 3:48pm by gmatchett

CITY OF COCOA

QUOTE TABULATION SHEET

QUOTE DUE DATE: February 7, 2024 3:00 P.M.

Osage-Angelica Utilities Improvement Project

VENDOR	00300 Quote Form TOTAL QUOTE	Quote Form Attached	00330 Listing of Subcontractors	00675 Florida Trench Safety Act	E-Verify Affadavit	Receipt of Addenda #1
Atlantic Development of Cocoa, Inc. 2185 West King Street Cocoa, Florida 32926	$3,717,385.30	Y	Y	Y	Y	Y
Danus Utilities, Inc. 2320 Beardall Avenue Sanford, Florida 32771	$4,110,400.70	Y	Y	Y	Y	Y
Hinterland Group, Inc. 5580 State Road 524 Cocoa, FL 32926	Did Not Submit a Response					

Task Order Request Form

P-Form 2021.09 Revised 07/14/2023

Engineering, Design, Permitting, & Services for Utility Conveyance Systems Upgrades & Expansions	2024-26
Name of CSA (Continuing Service Agreement)	TASK ORDER NUMBER

Date: 02/22/24 City Bid Number: RFQ-17-16-COC Amendment #4 AMOUNT: $ 97,925.00

Vendor Name: DRMP, Inc Quote/Proposal Number: 21-0540.002

Dept. Number/Division Name: 421-4055

Project Name: FRIDAY ROAD UTILITIES EXTENSTION Project Number: WS24WP

Please use this section only if you are revising the original task order, which will generate a change order.

AMENDMENT

Amendment to Original Task Order No. : Requested Amendment Amount:

Original Task Order Amount: Total Revised Amount including all Amendments:

Total number of Amendments including this one:

Scope of Services; Justification for Amendment

This Task Order is for the Friday Road Segment of the Lakes at Cocoa Groves project. In February 2021, Council approved Task Order 2021-21 for the design of the Utility Extensions (water, sewer, reclaim) with Bussen Mayer Engineering Group (currently DRMP, Inc.). The design was completed as two separate design segments, Friday Road Extension and the Osage/Angelica Extension. The project was split into two separate segments as they are not contiguous segments and also allow for flexibility in the timing/schedule of construction based on the needs of the overall project. The designs were completed in December of 2023.This TO is for Engineering Services During Construction will consist of providing construction administration, submittal review, inspections, RFI and Change Order assistance as-needed, review of testing results, as-builts, and permitting assistance for this project.

Design is Construction Related: ☑ YES ☐ NO ☐ N/A Good Faith Estimate of Construction Value: $ 2,130,760.00

Documentation for Good Faith Estimate Attached and Valid: ☑ YES ☐ NO ☐ N/A

Reference if applicable: Florida Statutes 287.055, Consultants Competitive Negotiation Act (CCNA)

Requestor Department Director

********** DO NOT WRITE BELOW THIS LINE - AUTHORIZED PERSONNEL ONLY **********

Task Order : ☑ Approved ☐ Disapproved

Refer to this Task # on all documentation: 2024-26

Council Approval Required: ☑ YES ☐ NO

Reason Disapproved:

Purchasing & Contracts Division Manager

City Manager (Purchases not to exceed $75K)

Mayor (Purchases that exceed $75K)

1) Requestor: Completes form and forwards all supporting documentation to Department Director.

2) Dept. Director reviews and approves, forwards Task Order and all supporting documentation to purchasing@cocoafl.org. (Subject Line to read: TO-VENDOR NAME Task # (if previously requested) PRICE-DEPT-DIV.)

3) Purchasing assigns Task Order Number and emails link that contains Task Order and all supporting documentation to the Purchasing Manager.

4) Purchasing Manager reviews and approves, uploads approved Task Order Form.

5) Task Order and all supporting documentation is forwarded to the City Manager for review and approval for Purchases not exceeding $75K. Approved Task Order by City Manager will be returned back to purchasing@cocoafl.org. If over $75K, Task Order and all documentation is forwarded back to Requestor who must then initiate an agenda item for City Council Approval. Once approved by City Council the City Clerk will have the Mayor sign both the Task Order Form and the Proposal if applicable and forward copies to purchasing@cocoafl.org.

6) Purchasing logs, the Task Order in the database and forwards fully executed Task Order and all supporting documentation back to Requestor.

Atlantic Development of Cocoa, Inc.

City of Cocoa

Osage/Angelica Utilities Improvements

Glenn S. Grignon
ggrignon@atlanticdevelopmentofcocoa.com
C: (321)403-4896

2185 West King Street
Cocoa, FL 32926
P: (321) 639-8788 | F: (321) 632-3655

SECTION 00300
QUOTE FORM
Osage/Angelica Utilities Improvements
City of Cocoa

Proposal of Atlantic Development of Cocoa, Inc.
(Name)
2185 West King St., Cocoa, FL 32926
(Address)

to furnish all materials, service, equipment, and labor required, for Friday Road Utilities Improvements as specified in Contract Documents.

The undersigned has carefully examined the Contract Documents and is familiar with the nature and extent of the work and materials and labor required. The undersigned agrees to do all of the work called for by said specifications, in the manner prescribed therein, in accordance with the Contract Documents, for the prices stated in the spaces herein provided.

NOTE THE CONTRACT WILL BE AWARDED BASED ON THE TOTAL QUOTE.

TOTAL QUOTE	$ 3,717,385.30

Three million seven hundred seventeen thousand three hundred eight five dollars and thirty cents Dollars
(Total Written in words)

FAILURE TO COMPLETE THE ABOVE WILL RESULT IN THE QUOTE BEING DECLARED NON-RESPONSIVE.

The undersigned also agrees as follows:

1) The undersigned agrees that the quote shall remain firm for a period not to exceed ninety (90) calendar days from the due date of the quote. The undersigned also agrees to commence the work with an adequate force and equipment within thirty (30) calendar days after the issue date of Notice to Proceed or Original Purchase Order. The work shall be substantially completed within three hundred and sixty-five (365) calendar days of Notice to Proceed or Purchase Order. The work shall be finally completed, ready for Final Payment within thirty (30) calendar days after the actual date of Substantial Completion. The Contractor agrees to reimburse the City of Cocoa, Florida, liquidated damages per the terms and conditions of RFQ 20-18-COC, Agreement for Utilities General Construction Contractor.

2) The Contractor shall procure and shall maintain the insurance requirement during the life of this Contract.

Atlantic Development of Cocoa, Inc.
(Company or Corporation Name)

2185 West King St.
(Street or P.O. Box)

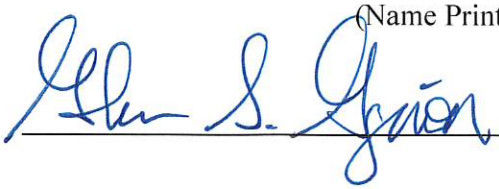
Cocoa, FL 32926
(City, State and Zip Code)

(321) 639-8788
(Area Code and Phone Number)

(321) 632-3655
(Area Code and Fax Number)

ggrignon@atlanticdevelopmentofcocoa.com
(Email Address)

By: Glenn S. Grignon - Vice President
(Name Printed and Title)



(Signature)

City of Cocoa
Osage/Angelica Utilities Improvements

Quote Schedule
Quoter will complete the Work in accordance with the Contract Documents for the following prices:

Item #	Item	Qty	UN	Unit $	Extended $
Miscellaneous					
101-1	Mobilization	1	LS	$ 128,500.00	$ 128,500.00
101-2	Pre & post construction video	1	LS	$ 7,500.00	$ 7,500.00
101-3	Record drawings	1	LS	$ 91,455.00	$ 91,455.00
102-1	Maintenance of traffic	1	LS	$ 10,825.00	$ 10,825.00
104-30	Eroison & sediment control	1	LS	$ 8,500.00	$ 8,500.00
110-1-1	Clearing and grubbing (selective)	1	LS	$ 12,500.00	$ 12,500.00
121-70	Flowable Fill	20	CY	$ 655.00	$ 13,100.00
334-1-13	Superpave asphalt, SP-12.5, traf. C	20	TN	$ 825.00	$ 16,500.00
570-1-3	Sod, Bahia	3,600	SY	$ 5.75	$ 20,700.00
570-1-4	Sod, St. Augustine (Contingency)	100	SY	$ 25.00	$ 2,500.00
700-1	Signing and pavement markings	1	LS	$ 5,000.00	$ 5,000.00
Potable Water					
1050-31-208	8" PVC C900 DR18	50	LF	$ 105.00	$ 5,250.00
1050-31-212	12" PVC C900 DR18	1,600	LF	$ 118.35	$ 189,360.00
1050-41-214	Direct bore 14" HDPE	3,252	LF	$ 248.00	$ 806,496.00
1055-1	Fittings	4.02	TN	$ 32,865.00	$ 132,117.30
1080-11-304	6" Gate valve	10	EA	$ 3,250.00	$ 32,500.00
1080-11-402	8"x8" Wet tap	1	EA	$ 12,500.00	$ 12,500.00
1080-11-403	12"x8" Wet tap	1	EA	$ 13,985.00	$ 13,985.00
1080-11-404	12" Gate valve	6	EA	$ 10,320.00	$ 61,920.00
1080-11-405	30"x12" Wet tap	1	EA	$ 35,700.00	$ 35,700.00
1644-116-08	Fire hydrant	10	EA	$ 9,750.00	$ 97,500.00
Force Main					
2050-31-208	8" PVC C900 DR18	885	LF	$ 105.00	$ 92,925.00
2050-41-210	Direct bore 10" HDPE	4,695	LF	$ 215.25	$ 1,010,598.75
2055-1	Fittings	1.65	TN	$ 43,200.00	$ 71,280.00
2080-11-402	8" Gate valve	4	EA	$ 6,800.00	$ 27,200.00
2080-11-403	12"x8" Wet tap	1	EA	$ 18,650.00	$ 18,650.00
2080-11-406	Air/vac assembly	7	EA	$ 21,255.00	$ 148,785.00
Reclaimed Water Main					
3050-31-212	12" PVC C900 DR18	290	LF	$ 135.00	$ 39,150.00
3050-41-214	Direct bore 14" HDPE	2,160	LF	$ 248.00	$ 535,680.00
3055-1	Fittings	1.05	TN	$ 32,865.00	$ 34,508.25
3080-11-403	12"x12" Wet tap	1	EA	$ 13,560.00	$ 13,560.00
3080-11-404	12" Gate valve	2	EA	$ 10,320.00	$ 20,640.00
				Grand Total Bid	$ 3,717,385.30

Quoter acknowledges that the estimated quantities indicated in the Quote Schedule are not guaranteed, and are solely for the purpose of comparison of quotes, and final payment for all unit price quote items will be based on actual quantities, determined as provided in the Contract Documents.

Submitted by: Glenn S. Grignon

Contractor: Atlantic Development of Cocoa, Inc.

Address: 2185 West King St. Cocoa, FL 32926

Telephone: (321) 639-8788

State of Florida Certified General Contractor or Underground Contractor (Required Information)

Licensee: Tyler Isaac Sirios

License No.: CUC1226120

Ron DeSantis, Governor

Melanie S. Griffin, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE UNDERGROUND UTILITY & EXCAVATION CO HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

SIROIS, TYLER ISAAC

ATLANTIC DEVELOPMENT OF COCOA, INC
2185 WEST KING STREET
COCOA FL 32926

LICENSE NUMBER: CUC1226120

EXPIRATION DATE: AUGUST 31, 2024

Always verify licenses online at MyFloridaLicense.com

ISSUED: 12/18/2023

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

SECTION 00330
LISTING OF SUBCONTRACTORS

The Contractor proposes that the following subcontractors are qualified to performed the referenced work and have successfully done so on recent projects similar in nature and size. Upon approval of subcontractors listed the successful quoter shall not substitute subcontractors without approval from the Engineer and Owner.

DESCRIPTION OF WORK	COMPANY NAME ADDRESS & PHONE NUMBER	REFERENCES
Survey	Name: Morgan & Associates	1. 30" DIP WM Well 17 Project
	Address: 504 N. Harbour City Blvd.	2. Michigan Ave. Force Main Repair Project
	City: Melbourne	
	State: FL zip: 32935	
	Phone: (321) 751-6088	3. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
Directional Drill	Name: K3 Directional Drilling, Inc.	1. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
	Address: 8526 SW Kansas Ave.	2. Sea Ray Dr. Sykes Creek 36" Water Main Crossing Project
	City: Stuart	
	State: FL zip: 34997	
	Phone: (771) 600-7118	3.
Wet Tapping	Name: Rangeline Tapping Services	1. Michigan Ave. Force Main Repair Project
	Address: PO Box 210155	2. N. Courtenay 24" Valve Repair Project
	City: Royal Palm Beach	
	State: FL zip: 33421	
	Phone: (800) 346-5971	3. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
Jack and Bore	Name: Wakefield Road Boring	1.
	Address: 9223 Balsamo Dr.	2.
	City: Palm Beach Gardens	
	State: FL zip: 33412	
	Phone: (561) 718-4703	3.
SOD	Name: Bonnie's Sod	1. Pluckebaum Rd and Marlin Manor Water Main & Force Main Improvements Project
	Address: 4440 Nail Farm Rd.	2.
	City: Melbourne	
	State: FL zip: 32934	
	Phone: (321) 403-3021	3.

SECTION 00675

SECTION IK - FLORIDA TRENCH SAFETY ACT CERTIFICATION AND DISCHARGE STATEMENT MANDATORY

Contractor acknowledges that included in the various items of the proposal and in the Total Quote Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The contractor further identifies the costs to be summarized below.

	ITEM	TRENCH SAFEY MEASURE (DESCRIPTION)	UNIT OF MEASURE	UNIT	UNIT COST	EXTEDED COST
A		Trench Box	LS	1	$36,660.00	$36,660.00
B						
C						
D						

These units, costs, and the unit prices inferred shall be disclosed solely for the purpose of compliance with the procedural requirements of the Florida Trench Safety Act.

This amount disclosed as the cost of compliance with the applicable trench safety requirement does not constitute the extent of the Contractor's obligation to comply with said standards. Contractor shall expend additional sums, at no additional cost to the OWNER (except as may otherwise be provided), which are necessary to so comply.

Acceptance of the Quote to which this certification and disclosure applies in no way represents that the OWNER or its representatives have evaluated and thereby determined that the above costs are adequate to comply with the applicable trench safety requirements nor does it in any way relieve the Contractor, of its sole responsibility to comply with the applicable trench safety requirements.

Atlantic Development of Cocoa, Inc.
Name of Firm

Authorized Signature

Date: 02/06/2024

This document shall be submitted with the Quote packet. Failure to complete the above may result in the Quote being declared non-responsive.

QUOTE ADDENDUM NO. 1
OSAGE ANGELICA UTILITIES IMPROVEMENTS
CITY OF COCOA
February 1, 2024

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions, and/or revisions to, and shall take precedence over, the original documents.

A. Attached to Addendum #1 is the E-Verify Contractor Affidavit. This affidavit is required to be filled out, signed, and submitted with the bid proposal.

B. All other Bidding/Contract Documents and Specifications remain unchanged.

The undersigned acknowledges receipt of this addendum to the bid documents.

Bidder/Contractor Name:
Atlantic Development of Cocoa, Inc.

Mailing Address:
2185 West King Street, Cocoa, FL 32926

Glenn S. Grignon
Authorized Signatory

Glenn S. Grignon
Printed Name

Vice President
Title

02/06/2024
Date

PLEASE COMPLETE AND SUBMIT WITH YOUR RESPONSE
Failure to submit this form may be grounds for disqualification of your submittal

CONTRACTOR E-VERIFY AFFIDAVIT

I hereby certify that Atlantic Development of Cocoa, Inc. [insert contractor company name] does not employ, contract with, or subcontract with an unauthorized alien, and is otherwise in full compliance with, section 448.095, Florida Statutes.

All employees hired on or after January 1, 2021 have had their work authorization status verified through the E-Verify system.

A true and correct copy of Atlantic Development of Cocoa, Inc. [insert contractor company name] proof of registration in the E-Verify system is attached to this Affidavit.

Glenn S. Grignon

Print Name: Glenn S. Grignon

Date: 02/06/2024

STATE OF FLORIDA

COUNTY OF Brevard

The foregoing instrument was acknowledged before me by means of ☒ physical presence or ☐ online notarization, this 02/06/2024 (date) by Glenn S. Grignon (name of officer or agent, title of officer or agent) of Atlantic Development of Cocoa, Inc. (name of corporation acknowledging), a Florida (state or place of incorporation) corporation, on behalf of the corporation. He/she is personally known to me or has produced _____ (type of identification) as identification.

Dennis R. Johnson

[Notary Seal] Notary Public

Dennis R. Johnson

Name typed, printed or stamped

My Commission Expires: 01/18/2026

DENNIS R JOHNSON
Notary Public - State of Florida
Commission # HH 181141
My Comm. Expires Jan 18, 2026
Bonded through National Notary Assn.

E-Verify

E-VERIFY IS A SERVICE OF DHS AND SSA

Company ID Number: 774066

Approved by:

Employer	
Atlantic Development of Cocoa Inc.	
Name (Please Type or Print) Glenn S Grignon	**Title**
Signature Electronically Signed	**Date** 04/16/2014
Department of Homeland Security – Verification Division	
Name (Please Type or Print) USCIS Verification Division	**Title**
Signature Electronically Signed	**Date** 04/16/2014

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA; AUTHORIZING THE CITY MANAGER TO APPROVE AND EXECUTE CHANGE ORDERS TO THE PRIMARY CONSTRUCTION CONTRACT AND ANY ADDITIONAL SERVICE CONTRACTS RELATED TO THE OSAGE/ANGELICA UTILITIES IMPROVEMENTS PROJECT, PROJECT NO. WS21CG, IN AN AMOUNT NOT TO EXCEED THE TOTAL AMOUNT BUDGETED FOR THE PROJECT BY THE CITY COUNCIL INCLUSIVE OF THE 10 PERCENT CONTINGENCY SET ASIDE FOR THE PROJECT; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Section 2-4 of the City Code provides that with respect to construction contracts approved by the City Council, the City Council may authorize by resolution the City Manager to approve change orders to the primary construction contract and any additional service contracts related to the completion of the construction project authorized by the City Council in excess of the spending authority limits under this section provided the amount is within the unexpended construction budget approved by the City Council for the project including any contingency funds approved by the City Council for said contract; and

WHEREAS, on February 27, 2024, the City Council authorized the City Manager to proceed with the Osage/Angelica Utilities Improvements Project, Project No. WS21CG, subject to certain terms and conditions and budget adjustments approved by the City Council; and

WHEREAS, in conjunction with this authorization, the City Council desires to streamline the approval of change orders and any additional service contracts to the extent necessary in order to expedite the construction of the project; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to authorize the City Manager to approve the aforementioned change orders and any additional service contracts consistent with the terms of this Resolution and Section 2-4 of the City Code even if said amounts exceed the City Manager's general spending authority approved by the City Council.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1.

(A) Pursuant to Section 2-4 of the City Code, the City Manager is hereby authorized to approve any change orders to the primary construction contract and any additional

service contracts related to the construction project regarding the Osage/Angelica Utilities Improvements Project, Project No. WS21CG, provided the total amount of approved change orders and any additional service contracts do not exceed the construction budget. The construction budget is $3,717,385.30, with an additional 10% contingency in the amount of $371,738.53 set aside for possible change orders, for a total of $4,089,123.83 for the project. This grant of spending authority shall be interpreted and construed in accordance with the provisions of Section 2-4 of the City Code.

(B) Pursuant to Section 2-4 of the City Code, the City Manager shall also provide notice of any such approved change orders and any additional service contracts to the City Council in the form of an agenda item at the next scheduled City Council meeting or as soon as practicable thereafter.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, in a regular meeting assembled on February 27, 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, City Clerk

RESOLUTION NO. 2024-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA, AMENDING THE CITY OF COCOA BUDGET FOR FISCAL YEAR 2024; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT RESOLUTIONS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Cocoa adopted the final budget for the fiscal year commencing on October 1, 2023, and ending on September 30, 2024, at a Regular meeting held on September 26, 2023; and

WHEREAS, in accordance with Article XII, Section 5 of the City of Cocoa Charter, whereby the Council may, at any time by resolution, transfer any unused and unencumbered appropriation or portion thereof from one office or department to another; and

WHEREAS, the City Council deems it to be in the best interest of the City of Cocoa to amend its budget as provided in this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COCOA, as follows:

SECTION 1. The 2023-2024 fiscal year budget shall be amended as detailed in the attached sheets.

SECTION 2. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 3. This resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, in a Regular meeting assembled on the 27th day of February 2024.

_____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, City Clerk

Osage/Angelica Road Utility Improvement - Lakes at Cocoa BAF#24-058-IFT 2-27-24 Agenda 24-058

Revenue

Adjustment Amount	Account	Project Number	Account Name	
$ 1,687,506	424-0000-381.91-21		Interfund Transfer From 421	(Sewer)
$ 733,251	424-0000-381.91-42		Interfund Transfer From 422	(Sewer)
$ 733,251	422-0000-389.99-50		Fund Balance - Impact Fees 422	(Sewer)
$ 1,668,368	422-0000-389.99-50		Fund Balance - Impact Fees 422	(Water)
$ 1,668,368	424-0000-381-91.42		Interfund Transfer From 422	(Water)
$ 6,490,744	**Total Revenue Fund 424**			
	Total Sewer	**$ 2,420,757**		
	Total Water	**$ 1,668,368**		
		$ 4,089,125		

Expense

$ (1,687,506)	421-4055-536.63-00	WS21CG	Infrustructure	(Sewer)
$ 1,687,506	421-4010-581-91.24		Interfund Transfer To 424	(Sewer)
$ 1,687,506	424-4055-536.63-00	WS24LC	Infrustructure	(Sewer)
$ 733,251	422-4010-581.91-24		Interfund Transfer to R&R (424)	(Sewer)
$ 733,251	424-4055-536.63-00	WS24LC	Infrustructure	(Sewer)
$ 1,668,368	422-4010-581.91-24		Interfund Transfer to R&R (424)	(Water)
$ 1,668,368	424-4055-536.63-00	WS24LC	Infrustructure	(Water)
	Total Infrustructure Fund 424			
	Total Sewer	**$ 2,420,757**		
	Total Water	**$ 1,668,368**		
		$ 4,089,125		
$ 6,490,744				

City of Cocoa Budget Adjustment Form FY 2024 - 24-058-IFT

SELECT ADJUSTMENT TYPE: INTERFUND TRANSFER | REQUESTING DEPARTMENT #: UT | DATE PREPARED: 02/22/24

'REVENUE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 1,687,506		WS24LC	See Tracking Sheet	$ 0	$ 0	$ 1,687,506	$ 0
$ 733,251		WS24LC		$ 0	$ 0	$ 733,251	$ 0
$ 1,668,368		WS24LC		$ 0	$ 0	$ 1,668,368	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 4,089,125	TOTAL						

'EXPENSE' ACCOUNT(S)

ADJUSTMENT AMOUNT	ACCOUNT NUMBER	PROJECT NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	AMENDED BUDGET	ADJUSTED BUDGET	UNENCUMBERED BALANCE
$ 1,687,506		WS24LC	See Tracking Sheet	$ 0	$ 0	$ 1,687,506	$ 0
$ 733,251		WS24LC		$ 0	$ 0	$ 733,251	$ 0
$ 1,668,368		WS24LC		$ 0	$ 0	$ 1,668,368	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 0				$ 0	$ 0	$ 0	$ 0
$ 4,089,125	TOTAL						

REASON/JUSTIFICATION FOR ADJUSTMENT:

This inter-fund transfer is moving funds to the Osage-Angelina Utility Improvement Project WS24LC formally known as WS21CG Cocoa Grove Utility Ext. to the Renewal and Replacement Fund (424). The use of Funds: Sewer Impact Fees $733,251, (421) Original Budget $1,687,506 and Water Impact Fees (422)$1,668,368, for a total of $4,089,125 for Construction and 10% Contingency (rounded up due to the separate funding sources).

Agenda 24-058

Council/Board APPROVAL REQUIRED? *YES* (●) *NO* ( ) *DATE APPROVED:* 02/27/24 *RESOLUTION #:*

City Council approval is needed for all transfers greater than $75,000 and transfers between Departments / Funds. All CRA adjustments are required to go their respective boards.

Lora Howell — Digitally signed by Lora Howell Date: 2024.02.22 16:16:50 -05'00'
Date — Requestor's Signature

Dave Radford — Digitally signed by Dave Radford Date: 2024.02.23 08:44:58 -05'00'
Date — Finance Approval Signature

Date — Finance Director's Signature

John "Jack" Walsh — Digitally signed by John "Jack" Walsh Date: 2024.02.22 16:24:05 -05'00'
Date — Department Director's Signature

Lora Howell — Digitally signed by Lora Howell Date: 2024.02.22 16:17:09 -05'00'
Date — Deputy Fin. Director's Signature

Date — City Manager's Signature

FINANCE USE ONLY:

Date Entered: _____ Entered By: _____ Group #: _____

Approved 07/13

Revised eform 8/3/23 - IT

Legislation Details (With Text)

File #:	24-031	**Version:**	1	**Name:**	
Type:	Agenda			**Status:**	Agenda Ready
File created:	1/10/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Conduct a Public Hearing to review the affordable housing real property inventory list and approve a Resolution identifying certain real property within the City to which the City holds fee simple title that is appropriate for permanent affordable housing. (Community Services Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Inventory List - City Property for Affordable Housing - Held for Resale 1-24-24 (FINAL).pdf City Properties for Affordable Housing 2024.pdf Resolution 2024 - XXX (affordable housing surplus property).pdf FS 166-0451 (Disposal of Vacant Property).pdf FT-38771343-proof.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: January 10, 2024
Agenda Date: February 27, 2024
Prepared By: Charlene Neuterman, Community Services Director
Through: Stockton Whitten, City Manager
Requested Action:
Conduct a Public Hearing to review the affordable housing real property inventory list and approve a Resolution identifying certain real property within the City to which the City holds fee simple title that is appropriate for permanent affordable housing.

BACKGROUND:

Florida Statutes, Section 166.0451, provides that by October 1, 2023, and every 3 years thereafter, each municipality shall prepare an inventory list of all real property within its jurisdiction to which the municipality holds fee simple title that is appropriate for use as affordable housing. The inventory list must include the address and legal description of each such property and specify whether the property is vacant or improved. The governing body of the municipality must review the inventory list at a public hearing and may revise it at the conclusion of the public hearing. Following the public hearing, the governing body of the municipality shall adopt a resolution that includes an inventory list of such property that is appropriate for permanent affordable housing.

In the future, the properties identified as appropriate for use as permanent affordable housing on the inventory list adopted by the City may be offered for sale and the proceeds may be used to purchase

land for the development of affordable housing or to increase the local government fund earmarked for affordable housing, or may be sold with a restriction that requires the development of the property as permanent affordable housing, or may be donated to a nonprofit housing organization for the construction of permanent affordable housing. Alternatively, the City may otherwise make the property available for use for the production and preservation of permanent affordable housing. Approval of the inventory list does not preclude the Council from revising the list in the future if a property (or properties) is determined to be needed for municipal purposes.

The term “affordable” has the same meaning as in F.S. 420.004(3) “Affordable” means that monthly rents or monthly mortgage payments including taxes, insurance, and utilities do not exceed 30 percent of that amount which represents the percentage of the median adjusted gross annual income for the households.

Municipalities are encouraged to adopt best practices for surplus land programs, including,, but not limited to:

- Establishing eligibility criteria for the receipt or purchase of surplus land by developers;
- Making the process for requesting surplus land publicly available;
- Ensuring long-term affordability through ground leases by retaining the right of first refusal to purchase property that would be sold or offered at market rate and by requiring reversion of property not used for affordable housing within a certain timeframe.

In January 2023, the City presented an updated list of real property appropriate for use as affordable housing. In accordance with the *2023 Florida Statues 166.0451 Disposition of municipal property for affordable housing*, the City has prepared an inventory list of all real property within its jurisdiction to which the City holds fee simple title that is appropriate for use as affordable housing. The inventory list includes the address and legal description of each such property and specifies whether the property is vacant or improved. All **43** properties are listed within Exhibit “A” as vacant. It should be noted that the 20 lots within the Michael C. Blake Subdivision must be developed for the purposes of permanent workforce housing. One property was added in 2023 after Brevard County deeded a parcel located at 727 Bernard to the City. Additionally, it should be noted that the five homes currently being constructed on lots in the Michael C. Blake subdivision will remain on the Inventory List until the homes are completed and sold. There are two lots currently owned by the Diamond Square Community Redevelopment Agency that are also included on this list and will be disposed of per the program developed by the City.

Staff are requesting Council conduct a public hearing to review the inventory list. The City may offer the properties for sale and the proceeds may be used to purchase land for the development of affordable housing or to increase the City’s fund earmarked for affordable housing; or may be sold by negotiated agreement with a buyer with a restriction that requires the development of the property as permanent affordable housing and such other terms and conditions required by the City Council; or may be donated to a nonprofit housing organization for the construction of permanent affordable housing. Alternatively, the City may otherwise make the property available for use of the production and preservation of permanent affordable housing. As stated previously, City Council reserves the right at any time to revise Exhibit “A” as deemed necessary.

As part of the recommendation to adopt best practices for surplus land programs, the City is developing a program that will meet the requirements of Florida Statute 166.0451 and the Live Local Act. This program will be presented to Council for approval at a later date. Since there has been some interest in various parcels, staff intends to present to the City Manager several parcels that the

City may want negotiate terms and conditions of the disposition of the properties described on Exhibit “A” subject to the City Council’s approval.

Upon approval of Resolution ##-####, it will be published as required on the City’s website.

STRATEGIC PLAN CONNECTION:

Community Development (Redevelopment of the City’s Core) - Supporting the development of permanent affordable housing in the City will raise the quality of life for its residents, especially those underserved and disadvantaged.

BUDGETARY IMPACT:

If any of the parcels are sold outright, the City would use the sale proceeds for development of additional affordable housing.

PREVIOUS ACTION:

May 2020, Agenda 20-228, Staff presented the Inventory List of Surplus Property.
January 2023, Agenda 23-55, Staff presented the Inventory List of Surplus Property.

RECOMMENDED MOTION:

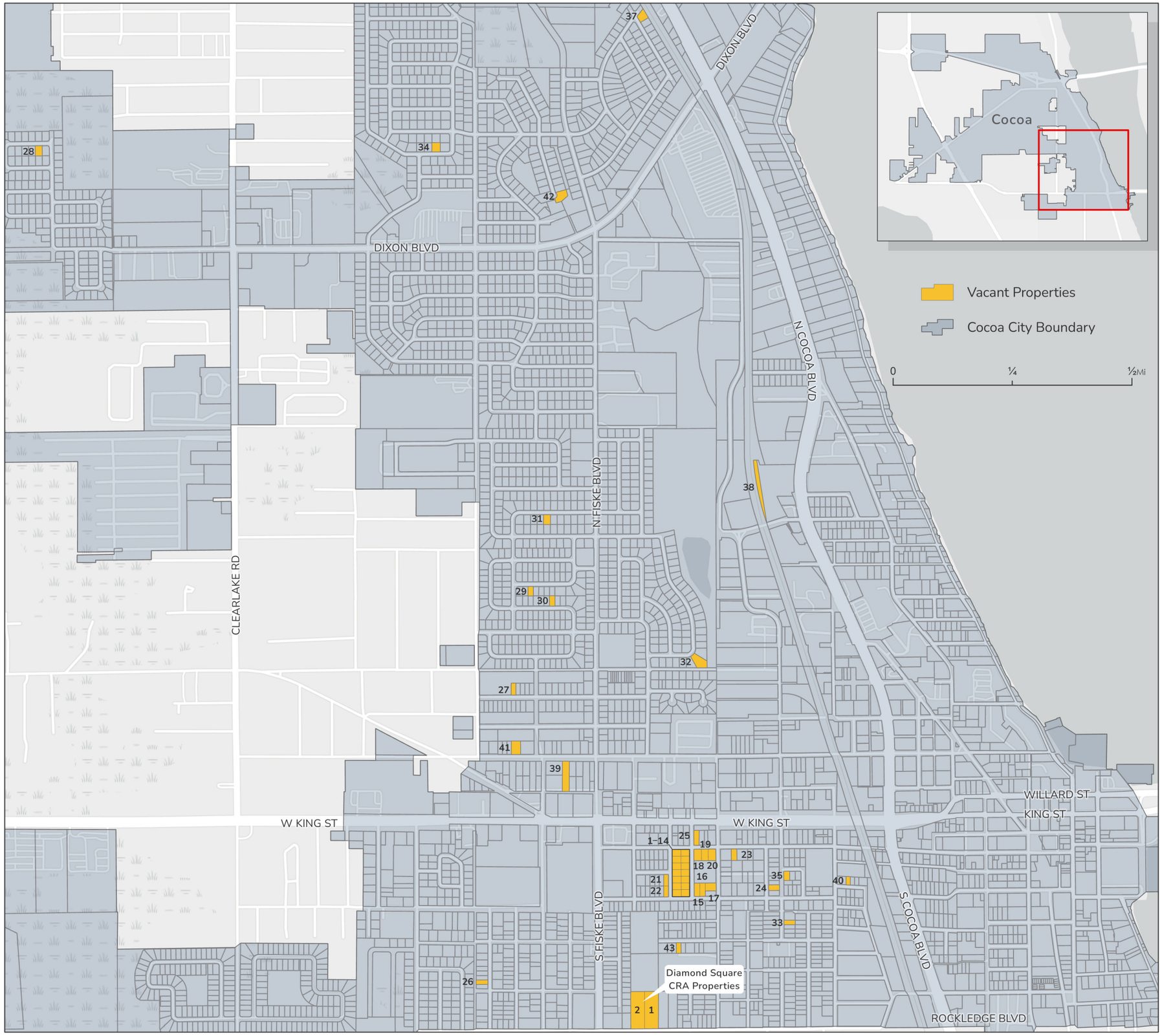
Conduct a Public Hearing to review the affordable housing real property inventory list and approve a Resolution identifying certain real property within the City to which the City holds fee simple title that is appropriate for permanent affordable housing.

City of Cocoa Properties						
Line	Tax Parcel	Address	Legal Description	Subdivision Name/Vacant or Improved	Parcel ID	Notes
1	3019557	Not assigned	Michael C Blake Lot 1	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-1	Not for resale
2	3019558	Not assigned	Michael C Blake Lot 2	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-2	Not for resale
3	3019559	Not assigned	Michael C Blake Lot 3	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-3	Not for resale
4	3019560	Not assigned	Michael C Blake Lot 4	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-4	Not for resale
5	3019561	Not assigned	Michael C Blake Lot 5	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-5	Not for resale
6	3019562	Not assigned	Michael C Blake Lot 6	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-6	Not for resale
7	3019563	Not assigned	Michael C Blake Lot 7	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-7	Not for resale
8	3019564	Not assigned	Michael C Blake Lot 8	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-8	Not for resale
9	3019565	Not assigned	Michael C Blake Lot 9	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-9	Not for resale
10	3019566	Not assigned	Michael C Blake Lot 10	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-10	Not for resale
11	3019567	Not assigned	Michael C Blake Lot 11	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-11	Not for resale
12	3019568	Not assigned	Michael C Blake Lot 12	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-12	Not for resale
13	3019569	Not assigned	Michael C Blake Lot 13	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-13	Not for resale
14	3019570	Not assigned	Michael C Blake Lot 14	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-14	Not for resale
15	3019571	Not assigned	Michael C Blake Lot 15	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-15	Not for resale
16	3019572	Not assigned	Michael C Blake Lot 16	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-16	Not for resale
17	3019573	Not assigned	Michael C Blake Lot 17	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-17	Not for resale
18	3019574	Not assigned	Michael C Blake Lot 18	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-18	Not for resale
19	3019575	Not assigned	Michael C Blake Lot 19	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-19	Not for resale
20	3019576	Not assigned	Michael C Blake Lot 20	MICHAEL C. BLAKE/ Vacant	24-36-32-07-*-20	Not for resale
21	2461518	805 Temple St	Lot 7 BLK 13 Plat Book 0005 Page 0072 COLLEGE PARK AMENDED MAP	College Park Amended Map/ Vacant	24-36-32-CC-13-7	Zoning RU-1-7
22	2461745	804 Barbara Jenkins St	Lot 14 BLK 13 Plat Book 0005 Page 0072 COLLEGE PARK AMENDED MAP	College Park Amended Map/ Vacant	24-36-32-CC-13-14	Zoning RU-1-7
23	2425286	619 Stone St	LOTS 3 BLK 11PLAT BOOK 0005 PAGE 72	College Park Amended Map/ Vacant	24-36-33-CC-11-3	Zoning RU-1-7
24	2425302	320 Loquat Ave	Lot 9 Block 12A Plat Book 0005 Page 0072	College Park Amended Map/ Vacant	24-36-33-CC-12. A-9	Zoning RU-1-7
25	2424059	712 Stone Street	Plat Book/Page 0008/0050, Sub Name: COLLEGE PARK Re Amended Map of Lt 1, Blk 3.	College Park Re Amended Map Of/ Vacant	24-36-32-CB-3-1	Zoning RU-1-7
26	2424816	629 S. Georgia Avenue	Lot 9, Block 4, VIRGINIA PARK SUBDIVISION, according to Plat Book 5, Page 10	VIRGINIA PARK/ Vacant	24-36-32-75-4-9	Zoning RU-1-7
27	2424282	1110 Grove Avenue	Lot 20, Block |, Replat No. 2, Cocoa Annex Re-subdivision according to Plat book | 9 Page 36	Cocoa Annex Replat No 2/ Vacant	24-36-32-02-1-20	Zoning RU-1-7
28	2414965	1970 Furman Court	Lot 11, Block K, COLLEGE MANOR NO. ONE,according to the plat thereof, as recorded in Plat book 14, Page 104	College Manor No 1/ Vacant	24-36-19-BS-K-11	Zoning RU-1-7
29	2422721	1059 Olive Street	Lot 140, BROADMOOR ACRES,according to the plat thereof, as recorded in Plat Book 10, Page 45	Broadmoor Acres Subd/ Vacant	24-36-29-78-*-140	Zoning RU-1-7

Line	Tax Parcel	Address	Legal Description	Subdivision Name/Vacant or Improved	Parcel ID	Notes
30	2422693	1050 Bellefonte Avenue	Lot 112, BROADMOOR ACRES,according to the plat thereof, as recorded in Plat Book 10, Page 45	Broadmoor Acres Subd/ Vacant	24-36-29-78-*-112	Zoning RU-1-7
31	2422533	1101 Avon Place	Lot 98, COCOA MODERN MANOR, according to the plat thereof as recorded in Plat Book 11, Page 95	Cocoa Modern Manors/ Vacant	24-36-29-77-*-98	Zoning RU-1-7
32	2422352	801 Eden Street	Lot 7, Block F, ROYAL GARDEN HOMES SECTION ONE, according to the plat thereof, as recorded in Plat Book 11, Page96	Royal Garden Homes/ Vacant	24-36-29-75-F-7	Zoning RU-1-7
33	2426110	514 S. Wilson	Davidsons Unrecorded Subd Part of NW 1/4 of SW 1/4 As Des In DB 410 Pg 59 Known As Davidsons Unrec SD Lot 3 BLK E.	Davidsons Unrecorded Subd/ Vacant	24-36-33-53-E-3	Zoning RU-1-7
34	2415581	1204 Cambridge	Lot 9 Block No 3 Plat Book 0012 Page 0100	Pineridge Unit No 3/ Vacant	24-36-20-BO-3-9	Zoning RU-1-7
35	2425305	437 Satsuma	Lot 1, Block 12C, Amended Map of College Park, according to the Pat thereof as recorded in Plat Book 5, Page 72	College Park Amended Map/ Vacant	24-36-33-CE-12,C-1	Zoning RU-1-7
37	2415726	1408 Donna Avenue	COCOA HILLS SUBD LOT 2	Cocoa Hills Subd/ Vacant	24-36-20-BV-*-2	Zoning RU-1-7
38	2421045	Not assigned	Part Of NW 1/4 Of SW 1/4 Adj To New Rr R/W As Des In Orb 870 Pg 216	/ Vacant	24-36-28-00-502.2	Parcel of land adjacent to RR tracks (East side of tracks) - not a buildable lot, recommend selling to adjacent property owner
39	2424298	1043 Peachtree St	Barlows Subd Lot 6 Subd	Barlows Subd/ Vacant	24-36-32-03-*-6	Zoned C-W: needs to be sold as commercial
40	2425487	352 Pomolo St	Part Of SE 1/4 Of NW 1/4 As Des In Orb 243 Pg 51	/ Vacant	24-36-33-00-267	Not a buildable lot, recommend selling to adjacent property owner
41	2424266	1112 Peachtree St.	Cocoa Annex Replat #2	Cocoa Annex Replat No 2/ Vacant	24-36-32-02-G-20	Zoning C-N (commercial neighborhood)
42	2421351	Not assigned	Cocoa Hills SUBD Replat of lot 230	Cocoa Hills SUBD Replat of lot 230 Vacant	24-36-29-BW-*-230	Zoning RU-1-7
43	2424159	727 Bernard St.	Part of NE 1/4 of SE 1/4 as Des in DB 314 PG 571	vacant	24-36-32-00-766	Zoning RU-1-7
Diamond Square CRA Properties						
1	2424165	Unknown - Rosa L Jones Dr	Part Of W 1/2 Of NE 1/4 Of SE 1/4 As Des In Db 251 Pg 45 Ex Db 382 Pg 120,w 365.6 Ft & Rd R/W Known As Par B	/ Vacant	24-36-32-00-773	between 826 & 918 Rosa L Jones Dr (Zoned RU-2-15)
2	2424166	Unknown - Rosa L Jones Dr	Part Of W 1/2 Of NE 1/4 Of SE 1/4 As Des In Db 251 Pg 45 Ex Db 382 Pg 120 & W 365.6 Ft Known As Par A	/ Vacant	24-36-32-00-773.1	between 826 & 918 Rosa L Jones Dr (Zoned RU-2-15)

Line	Tax Parcel	Address	Legal Description	Subdivision Name/Vacant or Improved	Parcel ID	Notes

Updated 1-24-24 CTN



COCOA
FLORIDA

City Properties for Affordable Housing

February 02, 2024

CS20240130-108001.0

Line	Tax ID	Address	Subdivision Name/Vacant or Improved	Parcel ID
1	3019557	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-1
2	3019558	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-2
3	3019559	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-3
4	3019560	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-4
5	3019561	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-5
6	3019562	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-6
7	3019563	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-7
8	3019564	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-8
9	3019565	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-9
10	3019566	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-10
11	3019567	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-11
12	3019568	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-12
13	3019569	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-13
14	3019570	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-14
15	3019571	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-15
16	3019572	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-16
17	3019573	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-17
18	3019574	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-18
19	3019575	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-19
20	3019576	Not assigned	MICHAEL C. BLAKE/Vacant	24-36-32-07-*-20
21	2461518	805 Temple St	College Park Amended Map/Vacant	24-36-32-CC-13-7
22	2461745	804 Barbara Jenkins St	College Park Amended Map/Vacant	24-36-32-CC-13-14
23	2425286	619 Stone St	College Park Amended Map/Vacant	24-36-33-CC-11-3
24	2425302	320 Loquat Ave	College Park Amended Map/Vacant	24-36-33-CC-12. A-9
25	2424059	712 Stone Street	College Park Re Amended Map Of/Vacant	24-36-32-CB-3-1
26	2424816	629 S. Georgia Avenue	VIRGINIA PARK/Vacant	24-36-32-75-4-9
27	2424282	1110 Grove Avenue	Cocoa Annex Replat No 2/Vacant	24-36-32-02-1-20
28	2414965	1970 Furman Court	College Manor No 1/Vacant	24-36-19-BS-K-11
29	2422721	1059 Olive Street	Broadmoor Acres Subd/Vacant	24-36-29-78-*-140
30	2422693	1050 Bellefonte Avenue	Broadmoor Acres Subd/Vacant	24-36-29-78-*-112
31	2422533	1101 Avon Place	Cocoa Modern Manors/Vacant	24-36-29-77-*-98
32	2422352	801 Eden Street	Royal Garden Homes/Vacant	24-36-29-75-F-7
33	2426110	514 S. Wilson	Davidsons Unrecorded Subd/Vacant	24-36-33-53-E-3
34	2415581	1204 Cambridge	Pineridge Unit No 3/Vacant	24-36-20-BO-3-9
35	2425305	437 Satsuma	College Park Amended Map/Vacant	24-36-33-CE-12,C-1
37	2415726	1408 Donna Avenue	Cocoa Hills Subd/Vacant	24-36-20-BV-*-2
38	2421045	Not assigned	Vacant	24-36-28-00-502.2
39	2424298	1043 Peachtree St	Barlows Subd/Vacant	24-36-32-03-*-6
40	2425487	352 Pomolo St	Vacant	24-36-33-00-267
41	2424266	1112 Peachtree St.	Cocoa Annex Replat No 2/Vacant	24-36-32-02-G-20
42	2421351	Not assigned	Cocoa Hills SUBD Replat of lot 230 Vacant	24-36-29-BW-*-230
43	2424159	727 Bernard St.	Vacant	24-36-32-00-766
			Diamond Square CRA Properties	
1	2424165	Unknown - Rosa L Jones Dr	Vacant	24-36-32-00-773
2	2424166	Unknown - Rosa L Jones Dr	Vacant	24-36-32-00-773.1

RESOLUTION 2024-XXX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, PROVIDING FOR REPEAL OF PRIOR RESOLUTIONS, IDENTIFYING CERTAIN REAL PROPERTY OWNED BY THE CITY WHICH MAY BE USED FOR AFFORDABLE HOUSING PROGRAMS IN THE CITY OF COCOA; PROVIDING A SURPLUS PROPERTY DETERMINATION AND FOR THE DISPOSITION OF SAID PROPERTY FOR THE BENEFIT OF AFFORDABLE HOUSING IN THE CITY OF COCOA; PROVIDING FOR THE REPEAL OF PRIOR, INCONSISTENT RESOLUTIONS; SEVERABILITY; AND AN EFFECTIVE DATE.

WHEREAS, Florida Statutes, Section 166.0451, provides that each City shall prepare an inventory list of all real property within its jurisdiction to which the City holds fee simple title that is appropriate for use as affordable housing;

WHEREAS, the inventory list must include the address and legal description of each such property and specify whether the property is vacant or improved;

WHEREAS, the City Council must review the inventory list at a public hearing and may revise it at the conclusion of the public hearing;

WHEREAS, the City Council may offer the properties for sale and the proceeds may be used to purchase land for the development of affordable housing or to increase the City's fund earmarked for affordable housing, or may be sold with a restriction that requires the development of the property as permanent affordable housing, or may be donated to a nonprofit housing organization for the construction of permanent affordable housing;

WHEREAS, City Council may otherwise make the property available for use for the production and preservation of permanent affordable housing.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF COCOA CITY COUNCIL, COCOA as follows:

SECTION 1. All prior resolutions or prior resolutions inconsistent with this resolution are hereby repealed to the extent of the conflict.

SECTION 2. It is hereby deemed, determined and declared that the properties more particularly described in **Exhibit "A",** attached hereto and incorporated herein by this reference, may be used by the City for affordable housing purposes, as the term "affordable" is defined in section 420.0004(3), Florida Statutes, and as provided in Section 3 of this Resolution. The City Council reserves the rights to revise Exhibit "A" as deemed necessary.

SECTION 3. It is hereby declared that the City may offer the properties for sale and the proceeds may be used to purchase land for the development of affordable housing or to increase the City's fund earmarked for affordable housing; or may be sold by negotiated agreement with a buyer with a restriction that requires the development of the property as permanent affordable housing and such other terms and conditions required by the City Council; or may be donated to a nonprofit housing organization for the construction of permanent affordable housing.

SECTION 4. The City Manager may negotiate terms and conditions of the disposition of the properties described on Exhibit "A" subject to the City Council's approval.

SECTION 5. No provision of this Resolution shall be construed or interpreted to require the City to require that the properties described in Exhibit "A" be used for affordable housing.

SECTION 6. This Resolution shall become effective immediately upon its adoption by the City Council of the City of Cocoa, Florida.

ADOPTED by the City Council of the City of Cocoa, Florida, in a regular meeting assembled on the 27th day of February 2024.

CITY OF COCOA, FLORIDA

By: _____
Michael C. Blake, Mayor

ATTEST:

_____
Monica Arsenault, CMC, City Clerk

SECTION 0451 - Disposition of municipal property for affordable housing.

[1]166.0451 Disposition of municipal property for affordable housing.—

(1) By October 1, 2023, and every 3 years thereafter, each municipality shall prepare an inventory list of all real property within its jurisdiction to which the municipality or any dependent special district within its boundaries holds fee simple title which is appropriate for use as affordable housing. The inventory list must include the address and legal description of each such property and specify whether the property is vacant or improved. The governing body of the municipality must review the inventory list at a public hearing and may revise it at the conclusion of the public hearing. Following the public hearing, the governing body of the municipality shall adopt a resolution that includes an inventory list of such property. Each municipality shall make the inventory list publicly available on its website to encourage potential development.

(2) The properties identified as appropriate for use as affordable housing on the inventory list adopted by the municipality may be used for affordable housing through a long-term land lease requiring the development and maintenance of affordable housing, offered for sale and the proceeds used to purchase land for the development of affordable housing or to increase the local government fund earmarked for affordable housing, sold with a restriction that requires the development of the property as permanent affordable housing, or donated to a nonprofit housing organization for the construction of permanent affordable housing. Alternatively, the municipality or special district may otherwise make the property available for use for the production and preservation of permanent affordable housing. For purposes of this section, the term “affordable” has the same meaning as in s. **420.0004**(3).

(3) Municipalities are encouraged to adopt best practices for surplus land programs, including, but not limited to:
(a) Establishing eligibility criteria for the receipt or purchase of surplus land by developers;
(b) Making the process for requesting surplus lands publicly available; and
(c) Ensuring long-term affordability through ground leases by retaining the right of first refusal to purchase property that would be sold or offered at market rate and by requiring reversion of property not used for affordable housing within a certain timeframe.
History.—s. 4, ch. 2006-69; s. 7, ch. 2023-17.
[1]Note.—Section 43, ch. 2023-17, provides:

“(1) The Department of Revenue is authorized, and all conditions are deemed met, to adopt emergency rules under s. 120.54(4), Florida Statutes, for the purpose of implementing provisions related to the Live Local Program created by this act. Notwithstanding any other law, emergency rules adopted under this section are effective for 6 months after adoption and may be renewed during the pendency of procedures to adopt permanent rules addressing the subject of the emergency rules.

“(2) This section expires July 1, 2026.”

NOTICE OF PUBLIC HEARING
CITY OF COCOA
INVENTORY LIST OF ALL REAL PROPERTY FOR AFFORDABLE HOUSING
ADOPTION OF RESOLUTION

Notice is hereby given that the City of Cocoa will conduct a public hearing in accordance with the *2023 Florida Statues 166.0451 Disposition of municipal property for affordable housing* to review an inventory list, for all real property within its jurisdiction which the City holds a fee simple title that is appropriate for use as affordable housing. The inventory list includes the address and legal description of each such property and specifies whether the property is vacant or improved. City Council will review the inventory list at the public hearing and may revise it at the conclusion of the public hearing. Following the public hearing, City Council shall adopt a resolution that includes an inventory list of such property, for use as permanent affordable housing.

Upon adoption of the resolution, the City may offer the properties for sale and the proceeds may be used to purchase land for the development of affordable housing or to increase the City's fund earmarked for affordable housing; or may be sold by negotiated agreement with a buyer with a restriction that requires the development of the property as permanent affordable housing and such other terms and conditions required by the City Council; or may be donated to a nonprofit housing organization for the construction of permanent affordable housing. The City Manager may negotiate terms and conditions of the disposition of the properties subject to the City Council's approval.

Notice is hereby further given that the inventory list will be presented to the City of Cocoa Council for approval on following date:

DATE: February 27, 2024

TIME: 6:00 P.M.

LOCATION: City Hall Council Chambers, 65 Stone Street, Cocoa, FL 32922

In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons with disabilities needing special accommodations to participate in these meetings should notify the Housing Program Coordinator at 321-433-8520 or 321-433-8525 no later than 48 hours prior to the meeting.

FT-38771343

Legislation Details (With Text)

File #:	24-089	**Version:** 1	**Name:**		
Type:	Ordinance		**Status:**	Agenda Ready	
File created:	2/16/2024		**In control:**	City Council	
On agenda:	2/27/2024		**Final action:**		
Title:	Approve on First Reading an Ordinance authorizing the inclusion of the Winward Preserve and Lakes at Cocoa Grove projects located within the City of Cocoa into the Brevard County District 1 Road and Bridge Municipal Service Taxing Unit. (City Attorney)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Ordinance No. __-2024 - Establishing MSTU.pdf Exhibit A - Subject Properties.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 19, 2024
Agenda Date: February 27, 2024
Prepared By: Anthony Garganese, City Attorney
Through: Stockton Whitten, City Manager
Requested Action:
Approve on First Reading an Ordinance authorizing the inclusion of the Winward Preserve and Lakes at Cocoa Grove projects located within the City of Cocoa into the Brevard County District 1 Road and Bridge Municipal Service Taxing Unit.

BACKGROUND:

On January 26, 2024, the City Council of the City of Cocoa entered into an Interlocal Agreement with Brevard County, Florida, recorded in the Official Records of Brevard County, Book 9978, Page 1677, whereby the City has agreed to consent to and authorize the inclusion of certain lands lying within the City of Cocoa in a Municipal Service Taxing Unit (“MSTU”) established by Brevard County, known as the Brevard County District 1 Road and Bridge MSTU, for the purpose of funding improvements to County-owned and maintained facilities in the immediate area of those certain lands as described herein.

The proposed Ordinance is in furtherance of the commitment made by the City Council in the Interlocal Agreement. The lands are generally known as the Winward Preserve and Lakes at Cocoa Grove projects.

Pursuant to Section 125.01(1)(q), Florida Statutes, the County is required to obtain the City Council’s consent, by ordinance, to operate a County MSTU within the incorporated area of the municipality,

and this Ordinance, and the above-referenced Interlocal Agreement, are in furtherance of satisfying this statutory requirement.

The subject properties will benefit from the improvements provided through the MSTU, including improvements to County roadways and drainage infrastructure within the City which is anticipated to be affected by new development and growth.

STRATEGIC PLAN CONNECTION:

The Intergovernmental Coordination Element of the Comprehensive Plan and Chapter 163, Florida Statutes, encourage local governments to cooperate on the basis of mutual advantage to provide services that will influence the needs of local communities.

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

January 26, 2024, the City Council of the City of Cocoa entered into an Interlocal Agreement with Brevard County, Florida, recorded in the Official Records of Brevard County, Book 9978, Page 1677 agreeing to adopt an Ordinance within 60 days to include the subject property into the MSTU.

RECOMMENDED MOTION:

Approve on First Reading an Ordinance authorizing the inclusion of the Winward Preserve and Lakes at Cocoa Grove projects located within the City of Cocoa into the Brevard County District 1 Road and Bridge Municipal Service Taxing.

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ORDINANCE NO. __-2024

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF COCOA, FLORIDA; CREATING A NEW ARTICLE IV, DIVISION 1, OF CHAPTER 19, *TAXATION*, OF THE CITY OF COCOA CODE OF ORDINANCES; AUTHORIZING THE INCLUSION OF CERTAIN PROPERTY LOCATED WITHIN THE CITY IN THE DISTRICT 1 ROAD AND BRIDGE MUNICIPAL SERVICE TAXING UNIT, CREATED AND ESTABLISHED BY BREVARD COUNTY, FLORIDA; PROVIDING IDENTIFICATION OF PROPERTY WITHIN THE CITY OF COCOA AUTHORIZED FOR INCLUSION IN SAID UNIT; PROVIDING FOR THE REPEAL OF PRIOR INCONSISTENT ORDINANCES AND RESOLUTIONS, SEVERABILITY, AND AN EFFECTIVE DATE.

WHEREAS, the City is granted the authority, under Section 2(b), Article VIII, of the State Constitution, to exercise any power for municipal purposes except when expressly prohibited by law; and

WHEREAS, on January 26, 2024, the City Council of the City of Cocoa entered into an Interlocal Agreement with Brevard County, Florida, recorded in the Official Records of Brevard County, Book 9978, Page 1677, whereby the City has agreed to consent to and authorize the inclusion of certain lands lying within the City of Cocoa in a Municipal Service Taxing Unit ("MSTU") established by Brevard County, known as the Brevard County District 1 Road and Bridge MSTU, for the purpose of funding improvements to County-owned and maintained facilities in the immediate area of those certain lands as described herein; and

WHEREAS, the Board of County Commissioners of Brevard County, Florida, has the authority to establish a Municipal Service Taxing Unit pursuant to Section 125.01(1)(q), Florida Statutes, and other controlling law; and

WHEREAS, pursuant to Section 125.01(1)(q), Florida Statutes, the County is required to obtain the City Council's consent, by ordinance, to operate a County MSTU within the incorporated area of the municipality, and this Ordinance, and the above-referenced Interlocal Agreement, are in furtherance of satisfying this statutory requirement; and

WHEREAS, properties within the City of Cocoa will benefit from the improvements provided through the MSTU, including improvements to County roadways and drainage infrastructure within the City which is anticipated to be affected by new development and growth; and

WHEREAS, the properties within the City of Cocoa which shall be included in the District 1 Road and Bridge MSTU are depicted and described on Exhibit "A," which is attached to this Ordinance and incorporated herein by this reference; and

WHEREAS, pursuant to Chapter 163, Florida Statutes, local governments are encouraged to cooperate on the basis of mutual advantage to provide services that will influence the needs of local communities; and

WHEREAS, the City Council of the City of Cocoa enacts this Ordinance pursuant to the Interlocal Agreement between the City and Brevard County to ensure that the high quality of life available to citizens of the City and County is protected and maintained; and

WHEREAS, the City Council of the City of Cocoa finds that it is appropriate and in the best interest of the public to authorize Brevard County to levy and collect taxes from the affected property owners within the City of Cocoa as identified herein and in the Interlocal Agreement to fund infrastructure improvements as identified by the County along the routes described in said Interlocal Agreement; and

WHEREAS, the City Council of the City of Cocoa, Florida, hereby finds this Ordinance to be in the best interests of the public health, safety, and welfare of the citizens of the City of Cocoa; and

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COCOA, BREVARD COUNTY, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The foregoing recitals are fully incorporated herein by this reference as legislative findings and the intent and purpose of the City Council of the City of Cocoa.

Section 2. Code Amendment. Chapter 19, *Taxation*, is hereby amended to add a new Article IV, Division 1 as follows: (underlined type indicates additions to the City Code and ~~strikeout~~ type indicates deletions, while asterisks (* * *) indicate a deletion from this Ordinance of text existing in Chapter 19. It is intended that the text in Chapter 19 denoted by the asterisks and set forth in this Ordinance shall remain unchanged from the language existing prior to adoption of this Ordinance):

Chapter 19 – TAXATION

* * *

ARTICLE IV. –MUNICIPAL SERVICE TAXING UNITS

DIVISION 1. – DISTRICT 1 ROAD AND BRIDGE MUNICIPAL SERVICE TAXING UNIT

Sec. 19-47. – Approval of Inclusion of Certain Properties in Brevard County District 1 Road and Bridge Municipal Service Taxing Unit.

Pursuant to Ordinance No. __-2024 ("Ordinance"), the City Council of the City of Cocoa, Florida, hereby approves and authorizes the inclusion of certain properties within the City limits

into Brevard County's District 1 Road and Bridge Municipal Service Taxing Unit ("District 1 Road and Bridge MSTU") boundaries, said properties more fully depicted and described as set forth in Exhibit "A" of the Ordinance. [Exhibit "A" not codified]. The City Council further consents to any ad valorem tax levy on real and tangible personal property within the City of Cocoa by Brevard County at a rate established and adopted annually by the District 1 Road and Bridge MSTU, beginning with Tax Year 2024, for the services provided by said MSTU, provided however, that the ad valorem tax levy shall not exceed the amount of 1 mill annually without prior approval of the City Council.

Sec. 19-48. – Term.

This Division and the consent for inclusion of those certain properties within the City limits described in Exhibit "A" of this Ordinance within the District 1 Road and Bridge MSTU shall remain in full force and effect for a term of 30 years, which shall be automatically renewed to coincide with the duration of the Interlocal Agreement with Brevard County, Florida, dated January 26, 2024, recorded in the Official Records of Brevard County, Book 9978, Page 1677.

* * *

Section 3. Repeal of Prior Inconsistent Ordinances and Resolutions. All prior inconsistent ordinances and resolutions adopted by the City Council, or parts or ordinances and resolutions in conflict herewith, are hereby repealed to the extent of the conflict.

Section 4. Incorporation into Code. This Ordinance shall be incorporated into the Cocoa City Code and any section or paragraph, number or letter, and any heading may be changed or modified as necessary to effectuate the foregoing. Grammatical, typographical, and like errors may be corrected and additions, alterations, and omissions, not affecting the construction or meaning of this ordinance and the City Code may be freely made.

Section 5. Severability. If any section, subsection, sentence, clause, phrase, word, or provision of this ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, whether for substantive, procedural, or any other reason, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions of this ordinance.

Section 6. Effective Date. This Ordinance shall become effective upon adoption by the City Council of the City of Cocoa, Florida, and pursuant to the City Charter.

[Signature Page to Follow]

ADOPTED by the City Council of the City of Cocoa, Florida, in a regular meeting assembled on the _____ day of _____, 2024.

_____

Michael C. Blake, Mayor

ATTEST:

_____

Monica Arsenault, Assistant City Clerk

Approved as to legal form and sufficiency

For the City of Cocoa only:

_____

Anthony A. Garganese, City Attorney

Legal Ad: _____

First Reading: _____

Second Reading: _____

EXHIBIT A

SUBJECT PROPERTIES

COMPOSITE EXHIBIT A

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Fidelity National Title
Insurance Company

Title No. 45441-CD05-104513
Agent ID: FL-2264
Agent File No. FSN/Fairwinds
Policy Jacket No. 1482-5689

EXHIBIT A

PARCEL 1

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 329.44 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line a distance of 2266.28 feet; thence departing said North line of Section 10, South 00 degrees 32 minutes 12 seconds East, a distance of 2235.09 feet to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), along said existing North right of way line a distance of 454.64 feet; thence North 87 degrees 19 minutes 06 seconds West, a distance of 638.49 feet, to a point of curvature of a curve concave to the Northeast, having a radius of 900.00 feet a central angle of 31 degrees 18 minutes 50 seconds (Calculated measurement) 31 degrees 18 minutes 48 seconds (Deed), thence Northwesterly along the arc of said curve a distance of 491.88 (calculated measurement) 491.87 (Deed) feet; thence North 56 degrees 04 minutes 39 seconds West (Calculated measurement) North 56 degrees 00 minutes 19 seconds West (Deed), a distance of 398.70 (Calculated measurement) 398.75 (Deed) feet to a point of curvature of a non-tangent curve concave to the North having a radius of 969.79 feet, a central angle of 37 degrees 46 minutes 38 seconds, thence Northwesterly along the arc of said curve a distance of 639.42 feet, to a point on the East right of way line of State Road No. 9 (Interstate 95); thence North 00 degrees 11 minutes 53 seconds West, along said East right of way line of State Road No. 9 (Interstate 95), a distance of 566.36 feet; thence North 01 degrees 55 minutes 04 seconds West, a distance of 300.93; thence North 01 degrees 20 minutes 38 seconds West, a distance of 476.50 feet to the POINT OF BEGINNING.

LESS AND EXCEPT THE AREA FOR BORROW PIT NO. 19 AND HAUL ROAD AS SET FORTH IN CIRCUIT COURT MINUTE BOOK 57, PAGE 479, PUBLIC RECORDS OF BREVARD COUNTY, FLORIDA, OTHER THAN THE REVERSIONARY INTEREST, DESCRIBED AS FOLLOWS:

BORROW PIT NO. 19

A parcel of land in the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, described as follows:

Commence on the North boundary of said Section 10, at a point 150 feet East from the Northwest corner thereof, run thence South 00 degrees 12 minutes 38 seconds East 50 feet; thence North 89 degrees 59 minutes 22 seconds East, 499.83 feet to the Northwest corner of Borrow Pit No. 19 and the POINT OF BEGINNING; continue thence North 89 degrees 59 minutes 22 seconds East 600 feet; thence South 00 degrees 00 minutes 38 seconds East 550 feet; thence South 89 degrees 59 minutes 22 seconds West 600 feet; thence North 00 degrees 00 minutes 38 seconds West 550 feet to the POINT OF BEGINNING.

AND

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Fidelity National Title
Insurance Company

Title No. 45441-CD05-104513
Agent ID: FL-2264
Agent File No. FSN/Fairwinds
Policy Jacket No. 1482-5689

HAUL ROUTE FOR BORROW PIT NO. 19

That part of the Northwest Quarter of Northwest Quarter of Section 10, Township 24 South, Range 35 East, lying South and within 50 feet of a line described as follows:

Begin at the Northwest corner of Borrow Pit No. 19 as described above, run thence South 89 degrees 59 minutes 22 seconds West 499.83 feet to the end of said line as herein described.

PARCEL 2

A parcel of land lying in the North Half of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2595.72 feet to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 44 seconds East, along said North line of Section 10 a distance of 70.51 feet, to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet; thence departing said North line South 00 degrees 32 minutes 12 seconds East, a distance of 2404.54 feet; to a point on a curve on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence along said existing North right of way line and along said curve that is concave to the South, having a radius of 5879.58 feet, a central angle of 15 degrees 41 minutes 33 seconds; thence Westerly, along the arc of said curve, a distance of 1610.32 feet; thence South 88 degrees 36 minutes 31 seconds West (Calculated measurement) South 88 degrees 40 minutes 54 seconds West (Deed), a distance of 404.03 feet; thence departing said North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2235.09 feet, to the POINT OF BEGINNING.

PARCEL 3

A parcel of land lying in the North Half Section 10, Township 24 South, Range 35 East, Brevard County, Florida, being more particularly described as follows:

Commence at the Northwest corner of Section 10, Township 24 South, Range 35 East, Brevard County, Florida, run thence South 89 degrees 57 minutes 44 seconds East, along the North line of said Section 10, a distance of 2666.23 feet to the North Quarter corner of Section 10; thence South 89 degrees 57 minutes 56 seconds East, along said North line of Section 10, a distance of 1926.93 feet, to the POINT OF BEGINNING; thence continue South 89 degrees 57 minutes 56 seconds East, along said North line of said Section 10, a distance of 738.58 feet to the Northeast corner of Section 10; thence South 00 degrees 32 minutes 12 seconds East, along the East line of said Section 10, a distance of 2602.18 feet, to a point on the existing Northerly right of way line of State Road No. 528 (also known as the "Bee Line Expressway", formerly known as State Road No. 524); thence North 74 degrees 59 minutes 21 seconds West, along said existing North right of way line, a distance of 693.63 feet, to a point of curvature of a curve concave to the South, having a radius of 5879.58 feet, a central angle of 00 degrees 42 minutes 35 seconds, thence Westerly, along the arc of said curve, a distance of 72.84 feet; thence departing said

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Fidelity National Title
Insurance Company

Title No. 45441-CD05-104513
Agent ID: FL-2264
Agent File No. FSN/Fairwinds
Policy Jacket No. 1482-5689

North right of way line North 00 degrees 32 minutes 12 seconds West, a distance of 2404.54 feet, to the POINT OF BEGINNING.

PARCEL 5

The West 318 feet of the South Half of the South Half of the South Half of the North Half, LESS the North 30 feet for road and LESS the South 100 feet and the West 100 feet for canal, Section 11, Township 24 South, Range 35 East, Brevard County, Florida. Also known as Tract 6, Block 16, CANAVERAL GROVES SUBDIVISION, according to the Map thereof, as recorded in Survey Book 2, Page 621, Brevard County, Florida.

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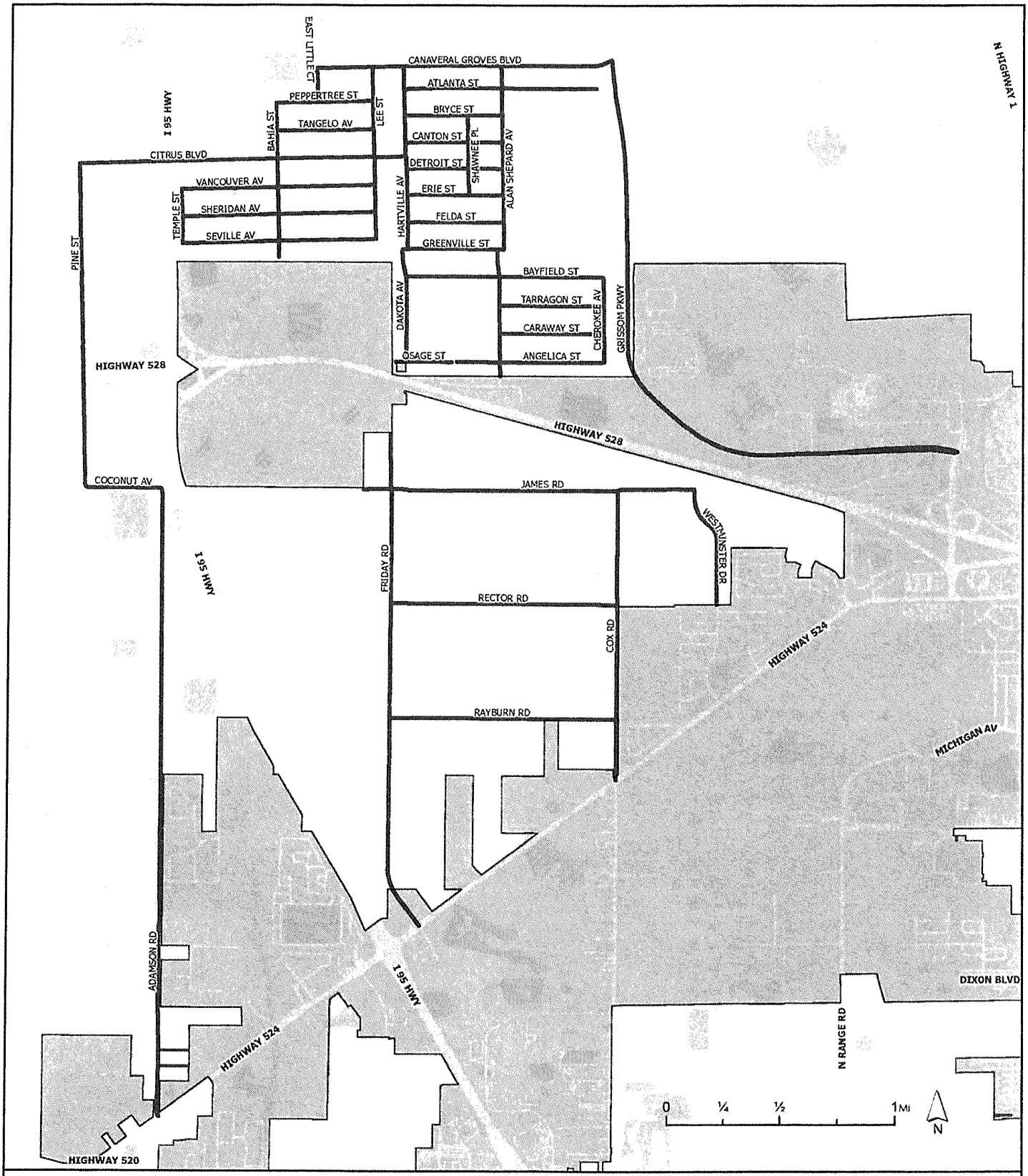
EXHIBIT "B"

BARRERA PROPERTY

A PARCEL OF LAND LYING IN SECTION 10, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTH 1/4 CORNER OF SECTION 10, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA, RUN THENCE NORTH 00 DEGREES 15 MINUTES 39 SECONDS WEST, A DISTANCE OF 50.05 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF JAMES ROAD, A 50 FOOT RIGHT OF WAY PER OFFICIAL RECORDS BOOK 783, PAGE 918 AND THE POINT OF BEGINNING; THENCE ALONG SAID RIGHT OF WAY LINE, NORTH 89 DEGREES 44 MINUTES 06 SECONDS WEST, A DISTANCE OF 1630.19 FEET TO A POINT ON THE WATER RETENTION AREA AS DESCRIBED IN F.D.O.T. MAP NO. 405506 5; THENCE LEAVING SAID RIGHT OF WAY LINE AND ALONG SAID WATER RETENTION AREA FOR THE NEXT 2 COURSES: NORTH 16 DEGREES 15 MINUTES 30 SECONDS WEST, A DISTANCE OF 333.76 FEET; THENCE NORTH 89 DEGREES 44 MINUTES 06 SECONDS WEST, A DISTANCE OF 488.64 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE STATE ROUTE 9 (INTERSTATE 95) AND A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE EASTERLY HAVING A RADIUS OF 3725.72 FEET, A CENTRAL ANGLE OF 14 DEGREES 38 MINUTES 34 SECONDS AND A CHORD DISTANCE OF 949.57 FEET WHICH BEARS NORTH 07 DEGREES 30 MINUTES 55 SECONDS WEST; THENCE NORTHERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 952.16 FEET; THENCE CONTINUING ALONG SAID RIGHT OF WAY LINE, NORTH 00 DEGREES 10 MINUTES 54 SECONDS WEST, A DISTANCE OF 205.37 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF BEELINE EXPRESSWAY (S.R. 528) AND A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 600.49 FEET, A CENTRAL ANGLE OF 56 DEGREES 36 MINUTES 06 SECONDS AND A CHORD DISTANCE OF 569.39 FEET WHICH BEARS NORTH 28 DEGREES 05 MINUTES 29 SECONDS EAST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 593.22 FEET; THENCE CONTINUING ALONG SAID BEELINE EXPRESSWAY RIGHT OF WAY LINE FOR THE NEXT 5 COURSES: NORTH 56 DEGREES 24 MINUTES 56 SECONDS EAST, A DISTANCE OF 1093.64 FEET TO A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 600.49 FEET, A CENTRAL ANGLE OF 32 DEGREES 11 MINUTES 39 SECONDS AND A CHORD DISTANCE OF 332.99 FEET WHICH BEARS NORTH 72 DEGREES 30 MINUTES 43 SECONDS EAST; THENCE NORTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 337.41 FEET; THENCE NORTH 88 DEGREES 36 MINUTES 31 SECONDS EAST, A DISTANCE OF 1179.23 FEET TO A POINT OF CURVATURE OF A CIRCULAR CURVE CONCAVE SOUTHERLY HAVING A RADIUS OF 5579.58 FEET, A CENTRAL ANGLE OF 16 DEGREES 24 MINUTES 06 SECONDS AND A CHORD DISTANCE OF 1591.78 FEET WHICH BEARS SOUTH 83 DEGREES 11 MINUTES 31 SECONDS EAST; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE A DISTANCE OF 1597.23 FEET; THENCE SOUTH 74 DEGREES 59 MINUTES 21 SECONDS EAST, A DISTANCE OF 774.87 FEET TO THE EAST LINE OF SECTION 10, TOWNSHIP 24 SOUTH, RANGE 35 EAST, BREVARD COUNTY, FLORIDA; THENCE ALONG SAID EAST SECTION LINE, SOUTH 00 DEGREES 04 MINUTES 39 SECONDS EAST, A DISTANCE OF 1056.66 FEET; THENCE LEAVING SAID EAST SECTION LINE, NORTH 89 DEGREES 52 MINUTES 22 SECONDS WEST, A DISTANCE OF 668.59 FEET; THENCE SOUTH 00 DEGREES 07 MINUTES 14 SECONDS EAST, A DISTANCE OF 1273.27 FEET TO THE NORTH RIGHT OF WAY LINE OF JAMES ROAD, A 50 FOOT RIGHT OF WAY PER OFFICIAL RECORDS BOOK 783, PAGE 318, THENCE ALONG SAID RIGHT OF WAY LINE, NORTH 89 DEGREES 51 MINUTES 39 SECONDS WEST, A DISTANCE OF 2003.10 FEET TO THE POINT OF BEGINNING.

CONTAINING WITHIN SAID BOUNDS, 264.10 ACRES (11,504,572 SQ. FT.), MORE OR LESS.



COCOA
FLORIDA

EXHIBIT B – ILA ROADWAYS

SelectedRoadways
Cocoa City Boundary

P2022920-38001.0

Exhibit B - Roadway Limits

- Pine Street [Citrus Boulevard to Coconut Avenue]
- Coconut Avenue [Pine Street to Adamson Road]
- Adamson Road [Coconut Avenue to State Road 524]
- Citrus Boulevard [Pine Street to Hartville Avenue]
- Vancouver Avenue [Temple Street to Lee Street]
- Sheridan Avenue [Temple Street to Lee Street]
- Seville Avenue [Temple Street to Lee Street]
- Temple Street [Vancouver Avenue to Seville Avenue]
- Bahia Street [Peppertree Street to Northern Limits of North Annexation Area (Approximately 456.7 feet south of the Seville Avenue southern right-of-way boundary)]
- Peppertree Street [Bahia Street to Lee Street]
- Tangelo Avenue [Bahia Street to Lee Street]
- East Little Court [Canaveral Groves Boulevard to Peppertree Street]
- Lee Street [Canaveral Groves Boulevard to Seville Avenue]
- Canaveral Groves Boulevard [East Little Court to Grissom Parkway]
- Hartville Avenue [Canaveral Groves Boulevard to Greenville Street]
- Dakota Avenue [Greenville Street to Osage Street]
- Shawnee Place [Bryce Street to Erie Street]
- Alan Shepard Avenue [Canaveral Groves Boulevard to southern terminus at Summer Breeze Plantation Subdivision (Approximately 303 feet south of the Angelica Street southern right-of-way boundary)]
- Atlanta Street [Hartville Avenue to Knoxville Avenue]
- Bryce Street [Hartville Avenue to Alan Shepard Avenue]
- Canton Street [Hartville Avenue to Alan Shepard Avenue]
- Detroit Street [Hartville Avenue to Alan Shepard Avenue]
- Erie Street [Hartville Avenue to Alan Shepard Avenue]
- Felda Street [Hartville Avenue to Alan Shepard Avenue]
- Greenville Street [Hartville Avenue to Alan Shepard Avenue]
- Bayfield Street [Dakota Avenue to Cherokee Avenue]
- Tarragon Street [Alan Shepard Avenue to Cherokee Avenue]
- Caraway Street [Alan Shepard Avenue to Cherokee Avenue]
- Osage Street [Eastern Limits of the North Annexation Area (Approximately 314.3 feet west of the Dakota Avenue western right-of-way boundary) to eastern terminus]
- Angelica Street [Western Terminus to Cherokee Avenue]
- Cherokee Avenue [Bayfield Street to Angelica Street]
- Grissom Parkway [Canaveral Groves Boulevard to Industry Road]
- Friday Road [Northern Terminus of improved roadway to State Road 524]
- Cox Road [James Road to State Road 524]
- Westminster Drive [James Road to Brevard County Roadway Limit (Approximately 120 feet north of the Hightower Court northern right-of-way boundary)]
- Rayburn Road [Friday Road to Cox Road]

- Rector Road [Friday Road to Cox Road]
- James Road [Western Terminus of improved public roadway to Westminster Road]
- The drainage right-of-way located approximately 205 feet south of the Osage Street and Angelica Street right-of-way is included as part of this exhibit if the subject area is constructed into an improved public roadway that is maintained by Brevard County. If Angelica Street is extended east to Grissom Parkway, that portion will automatically be included with this Exhibit.
- The extension of James Road located immediately west of the Friday Road right-of-way is included as part of this Exhibit if the subject area is constructed into an improved public roadway.

Legislation Details (With Text)

File #:	24-072	**Version:**	1	**Name:**	
Type:	Informational Item			**Status:**	Agenda Ready
File created:	2/6/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Approval of a road closure date change and the addition of a street closure outside the CBD. (Comm. & Economic Dev. Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 6, 2024
Agenda Date: February 27, 2024
Prepared By: Gail A. Bantugan, Leisure Services Manager
Through: Samantha Senger, Director of Communications and Economic Development
Requested Action:
Approval of a road closure date change and the addition of a street closure outside the CBD.

BACKGROUND:

During any given calendar year, the number of street closures approved by the City Council within the Central Business District (CBD) zoning district shall not exceed twenty-four (24) days. Any street closure lasting in excess of four (4) hours shall be counted as one full day, while any street closure of four (4) hours or less shall be counted as one half day per the Special Events Ordinance No. 04-2018.

Events:

Original Date
HCVMS Concours Car Show, Saturday, March 10th, 2024 (6:00am-5:00pm)
Brevard Ave.: between SR 520 and Factory St.
Church St.: between Brevard and Delannoy Ave.
Delannoy Ave.: between Church and SR 520 (King St.)
Orange Ave.: between Brevard Pl. and Brevard Ave.
Harrison St.: between Riveredge Blvd. and Brevard Ave.
Oleander St.: between Brevard Ave. and Municipal Parking Lot
Total Closure - One Day

Date Change Requested
HCVMS Concours Car Show, Saturday, November 9, 2024 (6:00am-5:00pm)
Brevard Ave.: between SR 520 and Factory St.
Church St.: between Brevard and Delannoy Ave.
Delannoy Ave.: between Church and SR 520 (King St.)
Orange Ave.: between Brevard Pl. and Brevard Ave.
Harrison St.: between Riveredge Blvd. and Brevard Ave.
Oleander St.: between Brevard Ave. and Municipal Parking Lot
Total Closure - One Day

New Road Closure Request outside of the CBD of Cocoa
Space Coast Runners Annual Space Coast Classic 15k and 2 miler Saturday, April 13, 2024 (4:30am -9:30am)
Mulberry Street: between BCP Library and Indian River Drive
Indian River Drive.: between Mulberry Street and Brookhill Drive
Total Closure - One Day

The total number of Central Business District (CBD) street closures if approved is 23.5
*The total number of Street closures outside of the Central Business District (CBD) if approved is 5.

STRATEGIC PLAN CONNECTION:

The Approval of the road closures will help to enhance the image of Cocoa as an inviting destination for visitors as well as re-enforce a sense of community and increased event participation for its citizens

BUDGETARY IMPACT:

The City receives $50.00 for each group that requests a street closure. The MLK event will have the permit fees waived. The event is held on a federal holiday per the special events ordinance section 2-404

PREVIOUS ACTION:

The 2024 Road Closure requests were approved last year.

RECOMMENDED MOTION:

Approval of the requested road closure date change and the addition of a street closure outside the CBD.

Legislation Details (With Text)

File #:	24-103	**Version:**	1	**Name:**	
Type:	Informational Item			**Status:**	Agenda Ready
File created:	2/22/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Council approval of FY23 assigned fund balance listing requested to be able to complete the FY23 Annual Comprehensive Financial Report (ACFR) for audit. (Finance Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 22, 2024
Agenda Date: February 27, 2024
Prepared By: Rebecca Bowman, MBA, CGFO, CGFM
Through: Stockton Whitten, City Manager
Requested Action:
Council approval of FY23 assigned fund balance listing requested to be able to complete the FY23 Annual Comprehensive Financial Report (ACFR) for audit

BACKGROUND:

City Council revised the Fund Balance Policy in July, 2023 via resolution 2023-080. In the fund balance policy revision, the City Manager must present to City Council a list of suggested assigned fund balance items for the current year concurrent with the issuance of the ACFR. Council is requested to approve this listing in order for the Finance Director to provide the financial statements to the auditors so that they can audit the completed financial statements timely to comply with bond covenants & deadlines to apply for the GFOA Certificate of Achievement for Excellence in Financial Reporting award. Many of the items on the list have already been approved by City Council through budget amendments rolling over budget into FY24 for the purchase order and uncommitted FY23 budgeted items. Future budget amendments will be required to use assigned fund balance when staff is ready to commit funding to actual purchases for the items on the FY23 assigned fund balance list.

The list of the FY23 City Manager recommended assigned fund balance items is in the process of being finalized at the time of publication of the Council Agenda and will be provided to City Council at the meeting.

STRATEGIC PLAN CONNECTION:

Fiscal sustainability

BUDGETARY IMPACT:

Budgeted	N/A
If not budgeted, is amendment/transfer attached?	Choose an item.

PREVIOUS ACTION:

City Council approved the FY21 assigned fund balance list and the FY22 fund balance list on May, 23, 2023 (Agenda 23-203) and March 6, 2023 (Agenda 23-175) respectively.

RECOMMENDED MOTION:

Council approval of FY23 assigned fund balance listing requested to be able to complete the FY23 Annual Comprehensive Financial Report (ACFR) for audit

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Legislation Details (With Text)

File #:	24-063	**Version:**	1	**Name:**	
Type:	Informational Item			**Status:**	Agenda Ready
File created:	2/2/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	In accordance with City Code, Section 2-74, at the beginning of each month during the fiscal year, the City Manager shall submit to City Council data showing the relation between the estimated and actual income and expenses to date. (Finance Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Budget Classification Report January 2024.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 7, 2024
Agenda Date: February 27, 2024
Prepared By: Dave Radford, Senior Budget Analyst
Through: Rebecca Bowman, MBA, CGFO, CGFM, Finance Director; Stockton Whitten, City Manager
Requested Action:
In accordance with City Code, Section 2-74, at the beginning of each month during the fiscal year, the City Manager shall submit to City Council data showing the relation between the estimated and actual income and expenses to date.

BACKGROUND:

The following reports for the period ending January 31st, 2024 (FY24) provide information for the three major funds: General Fund, Water/Sewer Fund, and the Storm Water Fund. This January 2024 (FY24) report is unaudited and preliminary.

Each of the major funds will have the following reports:

1. Budget by Account Classification Report
Summary of the annual budget, revenues collected and expenditures by fund. The detailed back-up documentation is found in the Revenue Report and the Detailed Budget Report Summary by Object

2. Revenue Report
Detail by account number of actual revenues collected vs. budget for the three major funds: General Fund, Water & Sewer, and Storm Water. This report shows the current period, the

year to date totals, the annual budget and the unrealized balance.
- Estimated - represents either the current period or year to date prorated budget
- Actual - represents actual revenue received either in the current period or year to date
- % Rev - the percentage of actual revenue received vs. budget
- Annual Estimate - annual budget
- Unrealized Balance - annual estimate (budget less actual year to date received)

3. Detail Budget Report Summary by Object
Summary of expenditures by account description vs. budget for the three major funds: General Fund, Water & Sewer, and Storm Water. This report shows the current period, the year to date totals, encumbrances, the annual budget and the unencumbered balance.
- Budget - represents either the current period or year to date prorated budget
- Actual - represents actual cash expenditures either in the current period or year to date
- % Exp. - the percentage of actual expenditures vs. budget
- Encumbrance - encumbered amount
- Annual Budget - annual budget
- Unencumbered Balance - annual budget less actual year to date actual expenditures plus encumbrances
- % Budgeted - the percentage of year to date actual expenditures plus encumbrances vs. budget

STRATEGIC PLAN CONNECTION:

Monthly reporting provides staff with an opportunity to monitor expenditure and revenue progression each month, to evaluate anomalies, and to determine corrective action (if necessary) for fiscal responsibility.

BUDGETARY IMPACT:

None

PREVIOUS ACTION:

None

RECOMMENDED MOTION:

Informational Item Only

FY 2024 Budget by Classification Report - Summary Listing

1/31/2024

Target for January 2024 is 33%

FUND 001 - GENERAL FUND

	Amended Budget	YTD Encumbrances	YTD Actual Transactions	Budget - YTD	% Used/Rec'd
REVENUE					
TAXES	$ 14,423,032	$ -	$ 10,279,115	$ 4,143,917	71%
OTHER PERMITS AND FEES	$ 5,181,777	$ -	$ 3,126,519	$ 2,055,258	60%
INTERGOVERNMENTAL	$ 2,867,145	$ -	$ 659,645	$ 2,207,500	23%
CHARGES FOR SERVICES	$ 7,786,730	$ -	$ 2,608,429	$ 5,178,301	33%
FINES AND FORFEITURES	$ 15,000	$ -	$ 3,651	$ 11,349	24%
MISCELLANEOUS	$ 1,194,945	$ -	$ 1,311,532	$ (116,587)	110%
****OTHER SOURCES (NON-REVENUE)**	$ 30,513,737	$ -	$ 5,958,878	$ 24,554,859	20%
REVENUE TOTALS	**$ 61,982,366**	**$ -**	**$ 23,947,768**	**$ 38,034,598**	**39%**
EXPENSE					
SALARIES AND BENEFITS	$ 29,622,843	$ 3,145	$ 7,983,578	$ 21,636,121	27%
OPERATING EXPENDITURES	$ 20,679,826	$ 4,861,757	$ 5,002,506	$ 10,815,563	24%
CAPITAL OUTLAY	$ 8,978,471	$ 5,312,453	$ 1,084,782	$ 2,581,236	12%
GRANTS, AIDS AND OTHER	$ 1,626,500	$ 34,464	$ 1,559,537	$ 32,499	96%
NON-OPERATING USES	$ 1,074,726	$ -	$ 358,208	$ 716,518	33%
EXPENSE TOTALS	**$ 61,982,366**	**$ 10,211,819**	**$ 15,988,611**	**$ 35,781,936**	**42%**
REVENUE TOTALS	**$ 61,982,366**	**$ -**	**$ 23,947,768**	**$ 38,034,598**	**39%**
EXPENSE TOTALS	**$ 61,982,366**	**$ 10,211,819**	**$ 15,988,611**	**$ 35,781,936**	**42%**
	$ -	**$ (10,211,819)**	**$ 7,959,157**	**$ 2,252,662**	

*Unaudited

**Fund Balance is a budgeted revenue, not actual revenue.

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
310	TAXES								
311	AD VALOREM								
10 00	CURRENT TAXES	886,836	271,747.86	31	3,547,344	9,060,341.37	255	10,642,032	1,581,690.63
20 00	DELINQUENT TAXES	1,250	3.67		5,000	32,891.77-	658	15,000	47,891.77
25 00	PENALTIES RE: TAXES	1,666	24.80	2	6,664	6,184.31	93	20,000	13,815.69
30 00	TAX CERTIFICATES	16,666	.00		66,664	.00		200,000	200,000.00
311 **	AD VALOREM	906,418	271,776.33	30	3,625,672	9,033,633.91	249	10,877,032	1,843,398.09
312	SALES USE AND FUEL TAXES								
41 00	LOCAL OPTION GAS TAX 6 CT	54,166	22,300.49	41	216,664	121,430.91	56	650,000	528,569.09
312 **	SALES USE AND FUEL TAXES	54,166	22,300.49	41	216,664	121,430.91	56	650,000	528,569.09
314	UTILITY SERVICE TAX								
10 00	ELECTRICITY	133,333	185,876.35	139	533,332	625,128.59	117	1,600,000	974,871.41
30 00	WATER-COCOA	33,333	42,687.48	128	133,332	153,881.72	115	400,000	246,118.28
40 00	GAS	4,583	5,366.35	117	18,332	15,105.10	82	55,000	39,894.90
80 00	PROPANE	2,000	2,854.05	143	8,000	7,455.51	93	24,000	16,544.49
314 **	UTILITY SERVICE TAX	173,249	236,784.23	137	692,996	801,570.92	116	2,079,000	1,277,429.08
315	COMMUNICATION SERVICE TAX								
00 00	COMMUNICATION SERVICE TAX	55,833	54,892.09	98	223,332	219,558.64	98	670,000	450,441.36
315 **	COMMUNICATION SERVICE TAX	55,833	54,892.09	98	223,332	219,558.64	98	670,000	450,441.36
316	LOCAL BUSINESS TAX								
00 00	LOCAL BUSINESS TAX	12,250	3,306.13	27	49,000	102,920.51	210	147,000	44,079.49
316 **	LOCAL BUSINESS TAX	12,250	3,306.13	27	49,000	102,920.51	210	147,000	44,079.49
310 ***	TAXES	1,201,916	589,059.27		4,807,664	10,279,114.89		14,423,032	4,143,917.11
320	OTHER PERMITS & FEES								
322	BUILDING PERMITS								
10 00	TRAINING SURCHARGE	0	.00		0	.00		0	.00
322 **	BUILDING PERMITS	0	.00		0	.00		0	.00
323	FRANCHISE FEES								
10 00	ELECTRICITY	108,333	141,201.64	130	433,332	314,592.17	73	1,300,000	985,407.83
40 00	GAS	7,083	8,851.82	125	28,332	23,847.44	84	85,000	61,152.56
70 00	SOLID WASTE	25,000	26,357.93	105	100,000	106,048.59	106	300,000	193,951.41
323 **	FRANCHISE FEES	140,416	176,411.39	126	561,664	444,488.20	79	1,685,000	1,240,511.80
325	SPECIAL ASSESSMENT								
22 01	FIRE ASSESSMENT	273,231	109,103.74	40	1,092,924	2,649,502.42	242	3,278,777	629,274.58

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
22 02	F ASSMNT DELINQ TAXES	250	.00		1,000	21,579.99-	2158	3,000	24,579.99
22 03	F ASSMNT PENALTIES	416	.00		1,664	1,643.02-	99	5,000	6,643.02
22 04	F ASSMNT TAX CERTS	11,666	.00		46,664	.00		140,000	140,000.00
22 *	FIRE PROTECTION	285,563	109,103.74	38	1,142,252	2,626,279.41	230	3,426,777	800,497.59
325 **	SPECIAL ASSESSMENT	285,563	109,103.74	38	1,142,252	2,626,279.41	230	3,426,777	800,497.59
329	OTHER PERMITS & FEES								
10 00	INSPECTION FEES	0	.00		0	.00		0	.00
10 01	FIRE INSPECTION FEES	2,500	.00		10,000	.00		30,000	30,000.00
10 *	INSPECTION FEES	2,500	.00		10,000	.00		30,000	30,000.00
25 00	PLANNING AND ZONING	3,333	32,348.75	971	13,332	55,751.50	418	40,000	15,751.50-
35 00	FIRE INSPECTIONS	0	.00		0	.00		0	.00
329 **	OTHER PERMITS & FEES	5,833	32,348.75	555	23,332	55,751.50	239	70,000	14,248.50
320 ***	OTHER PERMITS & FEES	431,812	317,863.88		1,727,248	3,126,519.11		5,181,777	2,055,257.89
330	INTERGOVERNMENTAL REVENUE								
331	FEDERAL GRANTS								
20 01	RES OFFCR - CTY CONTRACT	0	.00		0	.00		0	.00
20 15	VOCA-2021-COCOA PD	0	.00		0	.00		0	.00
20 16	INTERNET CRIMES GRANT	0	.00		0	.00		0	.00
20 19	JAG 2020-DJ-BX-0410	0	.00		0	.00		0	.00
20 21	BPV 2020 96472	0	.00		0	.00		0	.00
20 22	JAG 21-GG-01363	0	.00		0	13,901.60-		0	13,901.60
20 23	BULLET PROOF VEST 2021	307	614.50	200	614	614.50	100	3,066	2,451.50
20 24	VOCA-2022-COCOA PD-00181	0	.00		0	.00		0	.00
20 25	JAG 2022-22-GG-02810	0	.00		0	.00		0	.00
20 26	BULLET PROOF VEST 2022	196	.00		392	.00		1,960	1,960.00
20 27	VOCA-2023-COCOA PD-00042	9,910	10,125.13	102	39,640	10,125.13	26	118,921	108,795.87
20 28	JAG 2023-23-GG-03233	1,298	.00		5,192	.00		15,572	15,572.00
20 29	BULLET PROOF VEST 2023	1,078	.00		4,312	.00		12,940	12,940.00
20 *	PUBLIC SAFETY	12,789	10,739.63	84	50,150	3,161.97-	6	152,459	155,620.97
39 12	USDA/FOREST SVC 26866	0	12,462.50		0	.00		0	.00
50 01	FEDERAL DISASTER REIMB	0	.00		0	.00		0	.00
70 02	AFRICAN AM CIVIL RIGHTS	1,770	.00		3,540	.00		17,700	17,700.00
331 **	FEDERAL GRANTS	14,559	23,202.13	159	53,690	3,161.97-	6	170,159	173,320.97
333	PAYMENT IN LIEU OF TAXES								
90 00	HOUSING AUTHORITY	0	.00		0	.00		0	.00
333 **	PAYMENT IN LIEU OF TAXES	0	.00		0	.00		0	.00

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT		ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
334		STATE GRANT								
	10 15	CYBERSECUR DMS 22/23-249	0	.00		0	.00		0	.00
	50 01	STATE DISASTER REIMB	0	.00		0	.00		0	.00
	70 11	HTMOORE RESTORATION	420	.00		840	3,938.75-	469	4,204	8,142.75
	90 15	FLA CORONAVIRUS SFRF	0	.00		0	.00		0	.00
334	**	STATE GRANT	420	.00		840	3,938.75-	469	4,204	8,142.75
335		STATE SHARED REVENUES								
	12 00	STATE REVENUE SHARING	66,416	61,503.92	93	265,664	246,015.68	93	797,000	550,984.32
	12 20	8TH CNT MUNICIPAL GAS TAX	13,333	13,318.37	100	53,332	53,273.48	100	160,000	106,726.52
	12 *	STATE REVENUE SHARING	79,749	74,822.29	94	318,996	299,289.16	94	957,000	657,710.84
	14 00	MOBILE HOME LICENSES	2,083	3,987.82	191	8,332	16,356.47	196	25,000	8,643.53
	15 00	ALCOHOLIC BEVERAGE	2,083	.00		8,332	.00		25,000	25,000.00
	18 00	LOCAL GOVERNMENT 1/2 CENT	108,333	114,573.00	106	433,332	343,406.18	79	1,300,000	956,593.82
	21 00	FIREFIGHTER SUPPLEMENTAL	1,333	.00		5,332	7,694.25	144	16,000	8,305.75
	29 21	POL PEN STATE CONTR	17,287	.00		69,148	.00		207,445	207,445.00
	29 22	FIRE PEN STATE CONTR	11,861	.00		47,444	.00		142,337	142,337.00
	29 *	OTHER PUBLIC SAFETY	29,148	.00		116,592	.00		349,782	349,782.00
	41 00	FUEL TAX REFUNDS	1,666	.00		6,664	.00		20,000	20,000.00
335	**	STATE SHARED REVENUES	224,395	193,383.11	86	897,580	666,746.06	74	2,692,782	2,026,035.94
337		GRANTS FROM LOCAL UNITS								
	30 17	FIND BV-CO-20-147 DREDGIN	0	.00		0	.00		0	.00
	30 18	FIND BV-CO-20-146 BT RAMP	0	.00		0	.00		0	.00
	30 19	FIND BV-CO-21-152 DRG PII	0	.00		0	.00		0	.00
	30 20	FIND BV-CO-21-151 BT PII	0	.00		0	.00		0	.00
	30 21	FIND BV-CO-23-159 WTRF P1	0	.00		0	.00		0	.00
	30 *	PHYSICAL ENVIRONMENT	0	.00		0	.00		0	.00
	60 00	HUMAN SERVICES	0	.00		0	.00		0	.00
337	**	GRANTS FROM LOCAL UNITS	0	.00		0	.00		0	.00
338		SHARED REVENUE LOCAL UNIT								
	10 06	SR524 Widening	0	.00		0	.00		0	.00
338	**	SHARED REVENUE LOCAL UNIT	0	.00		0	.00		0	.00
330	***	INTERGOVERNMENTAL REVENUE	239,374	216,585.24		952,110	659,645.34		2,867,145	2,207,499.66
340		CHARGES FOR SERVICES								
341		GENERAL GOVERNMENT								

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT		ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
30	00	ADMINISTRATIVE FEES	0	.00		0	.00		0	.00
31	00	ADMIN FEES STORMWATER	0	.00		0	.00		0	.00
40	00	CERTIFY/COPY/SEARCH	8,274	6,504.64	79	33,096	23,103.11	70	99,295	76,191.89
90	12	PASSPORT EXECUTION FEES	250	70.00	28	1,000	595.00	60	3,000	2,405.00
341	**	GENERAL GOVERNMENT	8,524	6,574.64	77	34,096	23,698.11	70	102,295	78,596.89
342		PUBLIC SAFETY								
10	00	SVC CHG - LAW ENF SERVICE	14,666	8,400.00	57	58,664	10,975.00	19	176,000	165,025.00
10	02	SCHOOL RES OFFICER	22,833	.00		91,332	119,875.00	131	274,000	154,125.00
10	*	SVC CHG - LAW ENF SERVICE	37,499	8,400.00	22	149,996	130,850.00	87	450,000	319,150.00
20	00	SVC CHG - FIRE PROTECTION	2,500	3,250.00	130	10,000	7,555.00	76	30,000	22,445.00
90	00	OTHER PUBLIC SAFETY	83	.00		332	.00		1,000	1,000.00
90	01	FALSE ALARM FEES	625	300.00	48	2,500	1,190.00	48	7,500	6,310.00
90	*	OTHER PUBLIC SAFETY	708	300.00	42	2,832	1,190.00	42	8,500	7,310.00
342	**	PUBLIC SAFETY	40,707	11,950.00	29	162,828	139,595.00	86	488,500	348,905.00
343		PHYSICAL ENVIRONMENT								
37	10	BREVARD COUNTY	50,824	53,500.68	105	203,296	211,765.11	104	609,898	398,132.89
37	11	ROCKLEDGE	28,236	29,626.32	105	112,944	117,176.08	104	338,832	221,655.92
37	12	SUN LAKE	367	380.70	104	1,468	1,508.85	103	4,404	2,895.15
37	13	CLNY PK-M.I.UTIL CO.	186	202.50	109	744	797.15	107	2,236	1,438.85
37	16	COCOA BEACH	10,616	11,129.00	105	42,464	44,006.81	104	127,401	83,394.19
37	17	CAPE CANAVERAL	9,035	9,112.30	101	36,140	35,999.83	100	108,426	72,426.17
37	18	TITUSVILLE	406	417.15	103	1,624	1,655.65	102	4,879	3,223.35
37	*	WATER BILLING SERVICES	99,670	104,368.65	105	398,680	412,909.48	104	1,196,076	783,166.52
39	01	SERVICE CHARGES	75,000	94,803.12	126	300,000	329,506.03	110	900,000	570,493.97
39	03	ADMIN CHARGES	40,000	40,995.00	103	160,000	169,380.00	106	480,000	310,620.00
39	04	PENALTIES	60,000	88,791.21	148	240,000	238,972.12	100	720,000	481,027.88
39	05	NSF CHECKS	2,500	5,430.21	217	10,000	20,278.67	203	30,000	9,721.33
39	13	HIGH CONSUMP CHGS	400	2,400.00	600	1,600	7,155.00	447	4,800	2,355.00-
39	*	WATER OTHER INCOME	177,900	232,419.54	131	711,600	765,291.82	108	2,134,800	1,369,508.18
41	10	SOLID WASTE	229,801	229,726.59	100	919,204	910,717.63	99	2,757,617	1,846,899.37
41	20	RECYCLING REVENUE	33,735	34,501.10	102	134,940	140,514.63	104	404,831	264,316.37
41	30	GREEN WASTE	38,327	42,601.39	111	153,308	173,067.20	113	459,933	286,865.80
41	*	GARBAGE COLLECTION	301,863	306,829.08	102	1,207,452	1,224,299.46	101	3,622,381	2,398,081.54
45	10	BILLING FEE - WASTE MGMT	0	.00		0	.00		0	.00
46	10	EARNED NOT BILLED	0	.00		0	.00		0	.00

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
90 01	FDOT MEDIAN MAINT	5,016	15,632.50	312	20,064	15,632.50	78	60,200	44,567.50
90 03	FDOT MNT SIGNAL/HWY LIGHT	10,550	.00		42,200	.00		126,610	126,610.00
90 *	OTHER PHYSICAL ENVIRON	15,566	15,632.50	100	62,264	15,632.50	25	186,810	171,177.50
343 **	PHYSICAL ENVIRONMENT	594,999	659,249.77	111	2,379,996	2,418,133.26	102	7,140,067	4,721,933.74
347	CULTURE/RECREATION								
20 10	GAZEBO-PAVILLION RENTAL	83	110.00	133	332	170.00	51	1,000	830.00
39 10	PORCHER HOUSE - REVENUES	833	1,217.44	146	3,332	2,767.44	83	10,000	7,232.56
39 11	TENANT MAINTENANCE FEES	100	101.51	102	400	383.20	96	1,200	816.80
39 20	COCOA CIVIC CENTER	833	1,127.50	135	3,332	6,264.73	188	10,000	3,735.27
39 30	RIVERFRONT PARK	666	2,322.17	349	2,664	3,279.64	123	8,000	4,720.36
39 *	OTHER CULTURAL SERVICES	2,432	4,768.62	196	9,728	12,695.01	131	29,200	16,504.99
40 05	SPECIAL EVENT PERMITS	1,666	10,150.00	609	6,664	13,000.00	195	20,000	7,000.00
50 10	EVENT FEES	280	.00		1,120	567.35	51	3,368	2,800.65
50 30	ADVERTISING/SPONSORSHIPS	91	.00		364	.00		1,100	1,100.00
50 50	MISC FURNISHINGS	100	180.00	180	400	570.00	143	1,200	630.00
50 *	SPECIAL REC FACILITIES	471	180.00	38	1,884	1,137.35	60	5,668	4,530.65
347 **	CULTURE/RECREATION	4,652	15,208.62	327	18,608	27,002.36	145	55,868	28,865.64
340 ***	CHARGES FOR SERVICES	648,882	692,983.03		2,595,528	2,608,428.73		7,786,730	5,178,301.27
350	FINES AND FORFEITURES								
351	JUDGMENTS AND FINES								
90 00	OTHER	1,250	800.68	64	5,000	3,650.89	73	15,000	11,349.11
351 **	JUDGMENTS AND FINES	1,250	800.68	64	5,000	3,650.89	73	15,000	11,349.11
350 ***	FINES AND FORFEITURES	1,250	800.68		5,000	3,650.89		15,000	11,349.11
360	MISCELLANEOUS REVENUES								
361	INTEREST & OTHER EARNINGS								
10 00	INTEREST	10,000	.00		40,000	17,544.99	44	120,000	102,455.01
10 02	INVESTMENT INTEREST	10,000	.00		40,000	340,486.93	851	120,000	220,486.93-
10 10	SBA ACCOUNT 121328	50	.00		200	171,671.17	5836	600	171,071.17-
10 11	INTEREST/CBOS	91	.00		364	.00		1,100	1,100.00
10 *	INTEREST	20,141	.00		80,564	529,703.09	658	241,700	288,003.09-
30 00	NET INC/DEC FMV INVESTMNT	0	.00		0	.00		0	.00
35 01	AMERICAN TOWER	0	.00		0	.00		0	.00
35 02	ATT CELL TWR 14386094	0	.00		0	.00		0	.00

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
35 03	ATT CELL TOWER 382218	0	.00		0	.00		0	.00
35 04	LAMAR BILLBOARD	0	.00		0	.00		0	.00
35 05	SPRINT CELL TOWER	0	.00		0	.00		0	.00
35 06	LEASE - TMOBILE A2C0020A	0	.00		0	.00		0	.00
35 07	LEASE - TMOBILE A2C0555A	0	.00		0	.00		0	.00
35 *	MISCELLANEOUS INTEREST	0	.00		0	.00		0	.00
40 00	GAIN/(LOSS) SALE INVEST	0	.00		0	.00		0	.00
40 02	UNREALIZED GAIN/(LOSS)	0	.00		0	.00		0	.00
40 *	GAIN/(LOSS) SALE INVEST	0	.00		0	.00		0	.00
361 **	INTEREST & OTHER EARNINGS	20,141	.00		80,564	529,703.09	658	241,700	288,003.09-
362	RENT AND ROYALTIES								
00 00	RENT AND ROYALTIES	11,108	15,161.21	137	44,432	123,769.23	279	133,300	9,530.77
39 01	AMERICAN TOWER	0	.00		0	.00		0	.00
39 02	ATT CELL TWR 14386094	0	.00		0	.00		0	.00
39 03	ATT CELL TOWER 382218	0	.00		0	.00		0	.00
39 04	LAMAR BILLBOARD	0	.00		0	.00		0	.00
39 05	SPRINT CELL TOWER	0	.00		0	.00		0	.00
39 06	TMOBILE CELL TWR A2C0020A	0	.00		0	.00		0	.00
39 07	TMOBILE CELL TWR A2C0555A	0	.00		0	.00		0	.00
39 10	PORCHER HOUSE-TENANTS	583	1,370.16	235	2,332	7,460.64	320	7,000	460.64-
39 20	CIVIC CENTER-TENANTS	658	660.00	100	2,632	682.84	26	7,900	7,217.16
39 *	RENTALS AND LEASES	1,241	2,030.16	164	4,964	8,143.48	164	14,900	6,756.52
362 **	RENT AND ROYALTIES	12,349	17,191.37	139	49,396	131,912.71	267	148,200	16,287.29
364	DISPOSITION FIXED ASSETS								
00 00	DISPOSITION FIXED ASSETS	52,500	7,962.50	15	105,000	532,962.50	508	525,000	7,962.50-
10 00	GAIN/(LOSS)SALE OF F/A	0	.00		0	.00		0	.00
364 **	DISPOSITION FIXED ASSETS	52,500	7,962.50	15	105,000	532,962.50	508	525,000	7,962.50-
365	SALE SURPLUS MTRLS &SCRAP								
00 00	SALE SURPLUS MTRLS &SCRAP	0	303.15		0	324.85		0	324.85-
365 **	SALE SURPLUS MTRLS &SCRAP	0	303.15		0	324.85		0	324.85-
366	CONTRIBUTIONS & DONATIONS								
00 00	CONTRIBUTIONS & DONATIONS	0	23,428.00		0	25,928.00		0	25,928.00-
10 10	CONTRIBS FOR K-9	0	.00		0	.00		0	.00
10 14	REPLACEMENT TREES	0	.00		0	.00		0	.00
10 16	FIREHOUSE SUBS - E-BIKES	0	.00		0	.00		0	.00
10 *	DONATIONS-PRIVATE SOURCES	0	.00		0	.00		0	.00
366 **	CONTRIBUTIONS & DONATIONS	0	23,428.00		0	25,928.00		0	25,928.00-

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
368	PENSION CONTRIBUTIONS								
00 00	PENSION CONTRIBUTIONS	0	.00		0	.00		0	.00
21 00	POLICE STATE CONTRIBUTION	0	.00		0	.00		0	.00
22 00	FIRE STATE CONTRIBUTION	0	.00		0	.00		0	.00
368 **	PENSION CONTRIBUTIONS	0	.00		0	.00		0	.00
369	OTHER MISC REVENUES								
90 00	OTHER MISC REVENUES	12,489	2,142.77	17	12,489	3,748.30	30	112,400	108,651.70
90 02	POLICE SECURITY SERVICES	0	.00		0	.00		0	.00
90 03	CODE ENF ABATE/DEMO REV	8,333	21,186.37	254	33,332	68,262.90	205	100,000	31,737.10
90 04	MISC. POLICE REVENUES	708	13.75	2	2,832	117.75	4	8,500	8,382.25
90 05	INVESTIGATIVE COSTS REIM	4,512	2,530.18	56	18,048	12,152.71	67	54,145	41,992.29
90 09	PROPERTY REGISTRATION	416	.00		1,664	.00		5,000	5,000.00
90 12	LEISURE SVCS -CANCEL FEES	0	.00		0	250.00		0	250.00-
90 *	OTHER MISC REVENUES	26,458	25,873.07	98	68,365	84,531.66	124	280,045	195,513.34
96 00	INSURANCE REFUND/PROCEEDS	0	6,168.82		0	6,168.82		0	6,168.82-
369 **	OTHER MISC REVENUES	26,458	32,041.89	121	68,365	90,700.48	133	280,045	189,344.52
360 ***	MISCELLANEOUS REVENUES	111,448	80,926.91		303,325	1,311,531.63		1,194,945	116,586.63-
380	OTHER SOURCES(NON-REV)								
381	INTERFUND TRANSFER								
91 03	TRF FROM CDBG (103)	0	.00		0	.00		0	.00
91 10	TRF FROM COCOA CRA (110)	18,566	18,566.67	100	74,264	74,266.68	100	222,800	148,533.32
91 11	TRF FROM DIAMOND SQ (111)	0	.00		0	.00		0	.00
91 20	TRF FROM DBT SVC (201)	0	.00		0	.00		0	.00
91 21	TRF FROM W/S FUND (421)	0	.00		0	.00		0	.00
91 23	TRF FROM STORMWATER (423)	0	.00		0	.00		0	.00
91 25	TRF FROM W/S REST (425)	0	.00		0	.00		0	.00
91 26	TRF FROM W/S 2018B (426)	0	.00		0	.00		0	.00
91 30	TRF FROM CAP PROJ (301)	0	.00		0	.00		0	.00
91 31	TRF FROM FISKE BV (303)	0	.00		0	.00		0	.00
91 41	TRF FROM CONFISC (141)	0	.00		0	.00		0	.00
91 *	TRANSFER FROM	18,566	18,566.67	100	74,264	74,266.68	100	222,800	148,533.32
94 21	TRANS FR 421 OH ALLOC	664,154	664,154.00	100	2,656,616	2,656,616.00	100	7,969,848	5,313,232.00
94 23	TRANS FR 423 OH ALLOC	26,041	26,041.92	100	104,164	104,167.68	100	312,503	208,335.32
94 *	INTERFUND TRANSFER	690,195	690,195.92	100	2,760,780	2,760,783.68	100	8,282,351	5,521,567.32
381 **	INTERFUND TRANSFER	708,761	708,762.59	100	2,835,044	2,835,050.36	100	8,505,151	5,670,100.64
382	CONTRIBUTIONS ENTERPRISE								

CITY OF COCOA, FLORIDA

FUND 001 GENERAL FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
40 00	CONTRIBUTIONS (ROI)	640,777	640,777.92	100	2,563,108	2,563,111.68	100	7,689,335	5,126,223.32
40 01	6% PILOFF	140,178	140,178.92	100	560,712	560,715.68	100	1,682,147	1,121,431.32
40 *	CONTRIBUTIONS (ROI)	780,955	780,956.84	100	3,123,820	3,123,827.36	100	9,371,482	6,247,654.64
382 **	CONTRIBUTIONS ENTERPRISE	780,955	780,956.84	100	3,123,820	3,123,827.36	100	9,371,482	6,247,654.64
384	DEBT PROCEEDS								
00 00	DEBT PROCEEDS	0	.00		0	.00		0	.00
384 **	DEBT PROCEEDS	0	.00		0	.00		0	.00
389	NON OPERATING SOURCES								
90 00	NON OPERATING SOURCES	0	.00		0	.00		0	.00
99 10	CASH CARRY FORWARD	0	.00		0	.00		0	.00
99 11	RESTR. CASH CARRY FORWARD	0	.00		0	.00		0	.00
99 50	FUND BAL-APPROP. RESERVES	1,182,895	.00		3,173,938	.00		12,637,104	12,637,104.00
99 *	BALANCE FORWARD	1,182,895	.00		3,173,938	.00		12,637,104	12,637,104.00
389 **	NON OPERATING SOURCES	1,182,895	.00		3,173,938	.00		12,637,104	12,637,104.00
380 ***	OTHER SOURCES(NON-REV)	2,672,611	1,489,719.43		9,132,802	5,958,877.72		30,513,737	24,554,859.28
FUND TOTAL	GENERAL FUND	5,307,293	3,387,938.44		19,523,677	23,947,768.31		61,982,366	38,034,597.69
GRAND TOTAL		5,307,293	3,387,938.44		19,523,677	23,947,768.31		61,982,366	38,034,597.69

REPORT SELECTIONS

Fiscal year . . . . . : 2024
Fund . . . . . : 001
All Departments
All Divisions
Suppress accounts with zero balances . . . . : N

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
11-00	EXECUTIVE SALARIES	80521	71670.28	89	342505	282192.74	82	.00	986729	704536.26	29
11 **	EXECUTIVE SALARIES	80521	71670.28	89	342505	282192.74	82	.00	986729	704536.26	29
12-00	REGULAR SALARIES & WAGES	1229513	949074.18	77	4904864	3825237.72	78	.00	14741098	10915860.28	26
12-06	SALARIES/CONTRACTUAL	9583	7224.00	75	38332	29248.50	76	.00	115000	85751.50	25
12-07	EMS 1ST RESPONDER	0	.00	0	0	.00	0	.00	0	.00	0
12-10	SALARY ADJUSTMENTS	0	.00	0	0	.00	0	.00	0	.00	0
12-12	ACCRUAL PAYOUTS	8004	34363.85	429	31670	98774.39	312	.00	95730	3044.39-	103
12 **	REGULAR SALARIES & WAGES	1247100	990662.03	79	4974866	3953260.61	80	.00	14951828	10998567.39	26
13-00	OTHER SALARIES & WAGES	80184	75885.20	95	320736	282304.23	88	.00	962253	679948.77	29
13 **	OTHER SALARIES & WAGES	80184	75885.20	95	320736	282304.23	88	.00	962253	679948.77	29
14-00	OVERTIME	53780	84165.62	157	215120	406855.02	189	.00	645429	238573.98	63
14-01	COMP TIME	0	.00	0	0	.00	0	.00	0	.00	0
14 **	OVERTIME	53780	84165.62	157	215120	406855.02	189	.00	645429	238573.98	63
15-00	SPECIAL PAY	32891	32166.34	98	126428	127489.66	101	.00	389596	262106.34	33
15 **	SPECIAL PAY	32891	32166.34	98	126428	127489.66	101	.00	389596	262106.34	33
20-00	CLOTHING/SHOE ALLOWANCE	1846	.00	0	7384	3786.93	51	.00	22168	18381.07	17
20 **	CLOTHING/SHOE ALLOWANCE	1846	.00	0	7384	3786.93	51	.00	22168	18381.07	17
21-00	FICA TAXES	111649	94319.40	85	446596	380086.21	85	.00	1339915	959828.79	28
21 **	FICA TAXES	111649	94319.40	85	446596	380086.21	85	.00	1339915	959828.79	28
22-00	RETIREMENT CONTRIBUTIONS	105039	100679.21	96	420156	387995.73	92	.00	1260597	872601.27	31
22-01	FIRE PENSION	225715	180968.61	80	902860	755358.77	84	.00	2708603	1953244.23	28
22-02	STATE CONTRIBUTIONS	29148	.00	0	116592	.00	0	.00	349782	349782.00	0
22-03	NON-FRS RETIREMENT PLAN	2963	2784.58	94	11852	11076.94	94	.00	35580	24503.06	31
22 **	RETIREMENT CONTRIBUTIONS	362865	284432.40	78	1451460	1154431.44	80	.00	4354562	3200130.56	27
23-00	INSURANCES	5622	4281.18	76	22488	15013.06	67	.00	67570	52556.94	22

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
23-02	MEDICARE PART B	34275	22008.84	64	137100	136155.68	99	3144.60	411300	271999.72	34
23-04	MEDICAL	320383	249596.91	78	1281532	880029.97	69	.00	3844683	2964653.03	23
23-05	HEALTH GF RETIREES 50%	5634	3715.60	66	22536	15326.85	68	.00	67608	52281.15	23
23-06	HEALTH GF RETIREES 100%	24415	21359.16	88	97660	86365.54	88	.00	292980	206614.46	30
23-07	DENTAL INSURANCE	15260	12131.80	80	61040	43764.82	72	.00	183246	139481.18	24
23-08	VISION INSURANCE	2702	2170.15	80	10808	7844.76	73	.00	32605	24760.24	24
23-09	LONG TERM DISABILITY	4164	4082.50	98	16656	14389.57	86	.00	50093	35703.43	29
23-10	FSA HEALTH	0	.00	0	0	.00	0	.00	0	.00	0
23-11	FSA CHILDCARE	0	.00	0	0	.00	0	.00	0	.00	0
23 **	INSURANCES	412455	319346.14	77	1649820	1198890.25	73	3144.60	4950085	3748050.15	24
24-00	WORKER'S COMPENSATION	63976	26904.78	42	255904	121714.44	48	.00	767829	646114.56	16
24 **	WORKER'S COMPENSATION	63976	26904.78	42	255904	121714.44	48	.00	767829	646114.56	16
25-00	UNEMPLOYMENT COMPENSATION	833	.00	0	3332	2200.00	66	.00	10000	7800.00	22
25 **	UNEMPLOYMENT COMPENSATION	833	.00	0	3332	2200.00	66	.00	10000	7800.00	22
27-00	BENEFIT OFFSET	20204	18454.04	91	80816	70366.09	87	.00	242449	172082.91	29
27 **	BENEFIT OFFSET	20204	18454.04	91	80816	70366.09	87	.00	242449	172082.91	29
28-00	PER SVC OVERHEAD ALLOC	0	.00	0	0	.00	0	.00	0	.00	0
28 **	PER SVC OVERHEAD ALLOC	0	.00	0	0	.00	0	.00	0	.00	0
31-00	PROFESSIONAL SERVICES	46052	24587.64	53	168095	93497.33	56	273306.81	533869	167064.86	69
31-01	LEGAL EXPENSES	41673	68645.37	165	166692	111009.71	67	377570.29	500080	11500.00	98
31-02	MEDICAL SERVICES	4644	.00	0	18576	5023.35	27	45576.20	55730	5130.45	91
31-03	ENGINEERING SERVICES	0	.00	0	0	.00	0	.00	0	.00	0
31-05	EMS 1ST RESPONDER	1158	.00	0	4632	13905.00	300	.00	13905	.00	100
31-11	USDA MANAGE FOREST GRANT	0	.00	0	0	.00	0	.00	0	.00	0
31-15	AFRICAN AM CIVIL RIGHTS	1770	.00	0	3540	17700.00	500	.00	17700	.00	100

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
31-16	HISTORICAL PRESERVATN	420	.00	0	840	.00	0	4203.50	4204	.50	100
31-33	EMPLOYEE HEALTH CENTER	34768	34832.04	100	139072	94831.55	68	322389.45	417221	.00	100
31 **	PROFESSIONAL SERVICES	130485	128065.05	98	501447	335966.94	67	1023046.25	1542709	183695.81	88
32-00	ACCOUNTING & AUDITING	6333	5000.00	79	25332	5000.00	20	62000.00	76000	9000.00	88
32 **	ACCOUNTING & AUDITING	6333	5000.00	79	25332	5000.00	20	62000.00	76000	9000.00	88
34-00	CONTRACT SERVICES	147150	612784.05	416	557586	1023901.37	184	1062324.47	1734857	351368.84-	120
34-03	CUSTOMER SERVICE CONTRACT	277010	272970.26	99	1108040	805207.80	73	.00	3324121	2518913.20	24
34-07	JANITORIAL CONTRACT SVS	0	.00	0	0	.00	0	.00	0	.00	0
34-09	MOWING CONTRACTS	36000	11086.65	31	144000	98154.60	68	308117.90	432000	25727.50	94
34-10	COST OF GENERAL FUND SVCS	0	.00	0	0	.00	0	.00	0	.00	0
34-23	JAG 2022-22-GG-02810	0	.00	0	0	.00	0	.00	0	.00	0
34 **	CONTRACT SERVICES	460160	896840.96	195	1809626	1927263.77	107	1370442.37	5490978	2193271.86	60
39-00	CONTINGENCY	263846	.00	0	540513	.00	0	.00	2651294	2651294.00	0
39-15	WAGE AND SALARY	0	.00	0	0	.00	0	.00	0	.00	0
39-20	FUEL, OIL & LUBRICANTS	0	.00	0	0	.00	0	.00	0	.00	0
39 **	CONTINGENCY	263846	.00	0	540513	.00	0	.00	2651294	2651294.00	0
40-00	TRAVEL & PER DIEM	9209	2905.74	32	36836	9252.28	25	35.00	108167	98879.72	9
40-01	CAR ALLOWANCE	0	.00	0	0	.00	0	.00	0	.00	0
40-22	JAG-21-GG-01363	0	.00	0	0	.00	0	.00	0	.00	0
40 **	TRAVEL & PER DIEM	9209	2905.74	32	36836	9252.28	25	35.00	108167	98879.72	9
41-00	COMMUNICATION	33457	22185.91	66	134214	164442.67	123	206101.84	399508	28963.49	93
41-35	VOCA-2022-COCOA PD-00181	0	.00	0	0	.00	0	.00	0	.00	0
41 **	COMMUNICATION	33457	22185.91	66	134214	164442.67	123	206101.84	399508	28963.49	93
42-00	POSTAGE & FREIGHT	41677	40632.24	98	166435	126986.32	76	329817.26	499955	43151.42	91
42 **	POSTAGE & FREIGHT	41677	40632.24	98	166435	126986.32	76	329817.26	499955	43151.42	91

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
43-00	ELECTRIC/WATER/SEWER	75991	64016.59	84	303705	194491.89	64	638658.67	911649	78498.44	91
43 **	ELECTRIC/WATER/SEWER	75991	64016.59	84	303705	194491.89	64	638658.67	911649	78498.44	91
44-00	RENTALS AND LEASES	4590	5588.38	122	18360	19537.30	106	27963.86	53304	5802.84	89
44 **	RENTALS AND LEASES	4590	5588.38	122	18360	19537.30	106	27963.86	53304	5802.84	89
45-00	INSURANCE	77310	.00	0	310604	376279.96	121	.00	929099	552819.04	41
45 **	INSURANCE	77310	.00	0	310604	376279.96	121	.00	929099	552819.04	41
46-00	REPAIRS & MAINTENANCE	96142	38349.80	40	351874	270429.11	77	275258.93	1121040	575351.96	49
46-02	REPAIR/MAINT BUILDING	33508	22541.87	67	134032	48824.00	36	36445.00	402100	316831.00	21
46-03	REPAIR/MAINT-VEHICLES	39976	99122.71	248	157246	137520.95	88	14269.37	475986	324195.68	32
46-05	HYDRANT FEES	21649	21585.33	100	86596	86341.32	100	.00	259797	173455.68	33
46-15	INSURED VEHICLE ACCIDENT	0	.00	0	0	.00	0	.00	0	.00	0
46 **	REPAIRS & MAINTENANCE	191275	181599.71	95	729748	543115.38	74	325973.30	2258923	1389834.32	39
47-00	PRINTING & BINDING	14729	9197.00	62	58916	39350.19	67	106789.40	176755	30615.41	83
47 **	PRINTING & BINDING	14729	9197.00	62	58916	39350.19	67	106789.40	176755	30615.41	83
48-00	PROMOTIONAL ACTIVITIES	6078	4693.93	77	24698	10678.40	43	.00	73367	62688.60	15
48-11	BUSINESS ASSIST. PROGRAM	41	.00	0	164	.00	0	.00	500	500.00	0
48 **	PROMOTIONAL ACTIVITIES	6119	4693.93	77	24862	10678.40	43	.00	73867	63188.60	15
49-00	OTHER CHARGES & OBLIG.	20374	2951.29	15	81539	60559.58	74	161794.39	244628	22274.03	91
49-02	ADVERTISING	124	.00	0	496	.00	0	.00	1500	1500.00	0
49-06	BROWNFIELD PROG CITY COST	416	.00	0	1664	.00	0	.00	5000	5000.00	0
49-07	BAD DEBT EXPENSE	0	2247.30-	0	0	8111.72-	0	.00	0	8111.72	0
49-08	CASH OVER/SHORT	0	.00	0	0	.00	0	.00	0	.00	0
49-21	PD INVESTIGATIVE FUNDS	2083	120.00	6	8332	4605.00-	55-	.00	25000	29605.00	18-
49-23	COM CRIME PREV (SPOT)	0	.00	0	0	.00	0	.00	0	.00	0
49-31	OVERHEAD ALLOCATION	0	.00	0	0	.00	0	.00	0	.00	0

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
49 **	OTHER CHARGES & OBLIG.	22997	823.99	4	92031	47842.86	52	161794.39	276128	66490.75	76
51-00	OFFICE SUPPLIES	4123	952.73	23	16419	6257.59	38	.00	48565	42307.41	13
51 **	OFFICE SUPPLIES	4123	952.73	23	16419	6257.59	38	.00	48565	42307.41	13
52-00	OPERATING SUPPLIES	77739	71377.66	92	308838	448347.84	145	132371.16	930736	350017.00	62
52-02	UNIFORMS-PURCHASED	7370	16917.47	230	27986	32408.70	116	49293.36	86968	5265.94	94
52-05	EMS 1st RESP-CONSUM SUPP	4780	2945.31	62	19264	8793.38	46	35610.59	57505	13101.03	77
52-07	JANITORIAL SUPPLIES	4482	3281.52	73	17928	12834.32	72	.00	53805	40970.68	24
52-10	HEATING FUEL	474	293.85	62	1896	813.78	43	4874.22	5688	.00	100
52-22	BULLET PROOF V 2020	0	.00	0	0	.00	0	.00	0	.00	0
52-23	BULLET PROOF VEST 2021	307	.00	0	614	3065.40	499	.00	3066	.60	100
52-26	BULLET PROOF VEST 2022	392	839.40	214	784	3919.00	500	1.00	3920	.00	100
52-30	FUEL, OIL, & LUBRICANTS	29286	34447.32	118	117144	56848.29	49	.00	350395	293546.71	16
52-33	EMPLOYEE HEALTH CENTER	15729	10492.56	67	62916	24411.81	39	164338.19	188750	.00	100
52-35	VOCA-2022-COCOA PD-00181	0	.00	0	0	.00	0	.00	0	.00	0
52-36	FIREHOUSE SUBS - E-BIKES	0	.00	0	0	.00	0	.00	0	.00	0
52-37	JAG 23-GG-03233	1298	.00	0	5192	15572.00	300	.00	15572	.00	100
52-38	BULLET PROOF VEST 2023	2156	12903.72	599	8624	12903.72	150	12976.28	25880	.00	100
52 **	OPERATING SUPPLIES	144013	153498.81	107	571186	619918.24	109	399464.80	1722285	702901.96	59
53-00	ROAD MATERIALS/SUPPLIES	3847	1891.84	49	15388	6099.66	40	21784.00	46175	18291.34	60
53 **	ROAD MATERIALS/SUPPLIES	3847	1891.84	49	15388	6099.66	40	21784.00	46175	18291.34	60
54-00	MEMBERSHIP/PUBLICATIONS	6039	831.80	14	25314	19459.30	77	1710.00	71377	50207.70	30
54 **	MEMBERSHIP/PUBLICATIONS	6039	831.80	14	25314	19459.30	77	1710.00	71377	50207.70	30
55-00	TRAINING	16474	6572.04	40	70244	35363.13	50	5990.72	201363	160009.15	21
55-01	EDA PROGRAM	2251	.00	0	6168	58.04-	1-	14181.50	24182	10058.54	58
55-02	P/F HS RECRUITMENT	1441	1807.92	126	2882	1242.92	43	5367.08	14408	7798.00	46

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
55-22	JAG 21-GG-01363	0	.00	0	0	.00	0	.00	0	.00	0
55-35	VOCA-2022-COCOA PD-00181	0	.00	0	0	.00	0	.00	0	.00	0
55 **	TRAINING	20166	8379.96	42	79294	36548.01	46	25539.30	239953	177865.69	26
56-15	IT-RELATED OPERATING EXP	295315	60652.38	21	743702	514015.38	69	160636.89	3103135	2428482.73	22
56-16	CYBERSECUR DMS 22/23-249	0	.00	0	0	.00	0	.00	0	.00	0
56 **	TECHNOLOGY SYSTEMS	295315	60652.38	21	743702	514015.38	69	160636.89	3103135	2428482.73	22
57-99	OVERHEAD ALLOCATION	0	.00	0	0	.00	0	.00	0	.00	0
57 **	OVERHEAD ALLOCATION	0	.00	0	0	.00	0	.00	0	.00	0
58-97	LABOR	0	.00	0	0	.00	0	.00	0	.00	0
58 **	WORK ORDER CHARGES	0	.00	0	0	.00	0	.00	0	.00	0
59-00	DEPRECIATION EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
59 **	DEPRECIATION EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
61-00	LAND	24138	.00	0	48276	.00	0	.00	241379	241379.00	0
61 **	LAND	24138	.00	0	48276	.00	0	.00	241379	241379.00	0
62-00	BUILDINGS	85747	.00	0	178160	.00	0	67083.00	864143	797060.00	8
62-33	EMPLOYEE HEALTH CENTER	0	.00	0	0	.00	0	.00	0	.00	0
62 **	BUILDINGS	85747	.00	0	178160	.00	0	67083.00	864143	797060.00	8
63-00	INFRASTRUCTURE	159375	.00	0	645939	.00	0	1800252.32	1920936	120683.68	94
63-07	IMPROVE OTHER THAN BLDG	182003	394316.42	217	764290	664587.79	87	1381458.76	2220324	174277.45	92
63-13	FIND BV-CO-20-146 BT RAMP	0	.00	0	0	.00	0	.00	0	.00	0
63-14	FIND BV-CO-20-147 DREDGIN	0	.00	0	0	.00	0	.00	0	.00	0
63-15	FIND BV-CO-21-152 DRGPII	0	.00	0	0	.00	0	.00	0	.00	0
63-16	FIND BV-CO-21-151 BT PII	0	.00	0	0	.00	0	.00	0	.00	0
63-17	FIND BV-CO-23-159 WTRF P1	0	.00	0	0	.00	0	.00	0	.00	0
63 **	INFRASTRUCTURE	341378	394316.42	116	1410229	664587.79	47	3181711.08	4141260	294961.13	93

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
64-00	MACHINERY AND EQUIPMENT	345679	220947.53	64	887228	376857.55	43	2063659.00	3652689	1212172.45	67
64-15	IT HARDWARE	6552	.00	0	26572	43336.44	163	.00	79000	35663.56	55
64-33	EMPLOYEE HEALTH CENTER	0	.00	0	0	.00	0	.00	0	.00	0
64-60	SBITA INTANG ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
64 **	MACHINERY AND EQUIPMENT	352231	220947.53	63	913800	420193.99	46	2063659.00	3731689	1247836.01	67
68-10	SFTWR & OTHER INTANGIBLES	0	.00	0	0	.00	0	.00	0	.00	0
68 **	INTANGIBLE ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
71-00	DEBT SERVICE - PRINCIPAL	0	.00	0	0	.00	0	.00	0	.00	0
71-30	LEASE - COPIERS	4273	4268.93	100	17092	17065.60	100	34212.43	51278	.03-	100
71-60	SBITA - ESRI SGEA	0	.00	0	0	.00	0	.00	0	.00	0
71-61	SBITA - VERTEKS	0	.00	0	0	.00	0	.00	0	.00	0
71-62	SBITA - VERTEKS 5-9	0	.00	0	0	.00	0	.00	0	.00	0
71-63	SBITA - CLEARGOV	0	.00	0	0	.00	0	.00	0	.00	0
71-64	SBITA - VECTOR TGT SOL	0	.00	0	0	.00	0	.00	0	.00	0
71-65	SBITA - NEOGOV	0	.00	0	0	.00	0	.00	0	.00	0
71-66	SBITA - BRAZOS (TYLR)	0	.00	0	0	.00	0	.00	0	.00	0
71-67	SBITA - SOCRATA (TYLR)	0	.00	0	0	.00	0	.00	0	.00	0
71-68	SBITA - KRONOS TELSTFF	0	.00	0	0	.00	0	.00	0	.00	0
71-69	SBITA - SAMSARA	0	.00	0	0	.00	0	.00	0	.00	0
71 **	DEBT SERVICE - PRINCIPAL	4273	4268.93	100	17092	17065.60	100	34212.43	51278	.03-	100
72-30	LEASE - COPIERS	35	39.07	112	140	166.40	119	251.57	418	.03	100
72-60	SBITA - ESRI SGEA	0	.00	0	0	.00	0	.00	0	.00	0
72-61	SBITA - VERTEKS	0	.00	0	0	.00	0	.00	0	.00	0
72-62	SBITA - VERTEKS 5-9	0	.00	0	0	.00	0	.00	0	.00	0
72-63	SBITA - CLEARGOV	0	.00	0	0	.00	0	.00	0	.00	0

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
72-64	SBITA - VECTOR TRGT SOL	0	.00	0	0	.00	0	.00	0	.00	0
72-65	SBITA - NEOGOV	0	.00	0	0	.00	0	.00	0	.00	0
72-66	SBITA - BRAZOS (TYLR)	0	.00	0	0	.00	0	.00	0	.00	0
72-67	SBITA - SCORATA (TYLR)	0	.00	0	0	.00	0	.00	0	.00	0
72-68	SBITA - KRONOS TELSTFF	0	.00	0	0	.00	0	.00	0	.00	0
72-69	SBITA - SAMSARA	0	.00	0	0	.00	0	.00	0	.00	0
72 **	DEBT SERVICE - INTEREST	35	39.07	112	140	166.40	119	251.57	418	.03	100
73-00	OTHER DEBT SVC COSTS	0	.00	0	0	.00	0	.00	0	.00	0
73 **	OTHER DEBT SVC COSTS	0	.00	0	0	.00	0	.00	0	.00	0
81-00	AIDS TO GOVT AGENCY	128525	.00	0	514100	1542305.00	300	.00	1542304	1.00-	100
81 **	AIDS TO GOVT AGENCY	128525	.00	0	514100	1542305.00	300	.00	1542304	1.00-	100
82-01	ECON DEV INCENTIVE CONTR	1666	.00	0	6664	.00	0	.00	20000	20000.00	0
82 **	AID TO PRIVATE ORGANIZAT	1666	.00	0	6664	.00	0	.00	20000	20000.00	0
83-00	OTHER GRANTS & AIDS	0	.00	0	0	.00	0	.00	0	.00	0
83-01	MISC GRANTS/DONATIONS	0	.00	0	0	.00	0	.00	0	.00	0
83-11	UPSTART COCOA PROGRAM	1041	.00	0	4164	.00	0	.00	12500	12500.00	0
83 **	OTHER GRANTS & AIDS	1041	.00	0	4164	.00	0	.00	12500	12500.00	0
91-03	TO CDBG (103)	0	.00	0	0	.00	0	.00	0	.00	0
91-04	TO HOME (104)	0	.00	0	0	.00	0	.00	0	.00	0
91-07	TO BLDG PERM(107)	0	.00	0	0	.00	0	.00	0	.00	0
91-08	TO SEC 108 LOAN (108)	0	.00	0	0	.00	0	.00	0	.00	0
91-10	TO COCOA CRA (110)	0	.00	0	0	.00	0	.00	0	.00	0
91-11	TO DIAMOND SQ (111)	0	.00	0	0	.00	0	.00	0	.00	0
91-12	TO US 1 CRA (112)	0	.00	0	0	.00	0	.00	0	.00	0
91-20	TO GF DEBT SVC (201)	89560	89552.08	100	358240	358208.32	100	.00	1074726	716517.68	33

FUND 001 GENERAL FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
91-21	TO WATER SEWER (421)	0	.00	0	0	.00	0	.00	0	.00	0
91-23	TO STORMWATER (423)	0	.00	0	0	.00	0	.00	0	.00	0
91-25	TO RESTRCTD ASSET (425)	0	.00	0	0	.00	0	.00	0	.00	0
91-26	TO W/S 2018B (426)	0	.00	0	0	.00	0	.00	0	.00	0
91-30	TO GF CAP PROJ (301)	0	.00	0	0	.00	0	.00	0	.00	0
91-32	TO RVRFRNT/LWP (302)	0	.00	0	0	.00	0	.00	0	.00	0
91-33	TO FISKE CAP PROJ (303)	0	.00	0	0	.00	0	.00	0	.00	0
91-52	TO W/C INS FUND (520)	0	.00	0	0	.00	0	.00	0	.00	0
91-53	TO HEALTH INS FUND (530)	0	.00	0	0	.00	0	.00	0	.00	0
91 **	INTERFUND TRANSFER	89560	89552.08	100	358240	358208.32	100	.00	1074726	716517.68	33
FUND 001 TOTAL *********											
	GENERAL FUND	5308579	4294887.28	81	19529764	15988610.86	82	10211819.01	61982366	35781936.13	42
GRAND TOTAL *********											
		5308579	4294887.28	81	19529764	15988610.86	82	10211819.01	61982366	35781936.13	42

FY 2024 Budget by Classification Report - Summary Listing

1/31/2024

Target for January 2024 is 33%

FUND 421 - WATER/SEWER FUND

	Amended Budget	YTD Encumbrances	YTD Actual Transactions	Budget - YTD Transactions	% Used/Rec'd
REVENUE					
CHARGES FOR SERVICES	$ 77,093,525	$ -	$ 24,887,845	$ 52,205,680	32%
INTERGOVERNMENTAL/GRANTS	$ -	$ -	$ -	$ -	0%
MISCELLANEOUS	$ 567,350	$ -	$ 269,422	$ 297,928	47%
*OTHER SOURCES (NON-REVENUE)	$ 18,139,671	$ -	$ -	$ 18,139,671	0%
REVENUE TOTALS	**$ 95,800,546**	**$ -**	**$ 25,157,267**	**$ 70,643,279**	**26%**
EXPENSE					
SALARIES AND BENEFITS	$ 20,545,140	$ -	$ 5,457,514	$ 15,087,626	27%
OPERATING EXPENDITURES	$ 28,615,301	$ 10,275,719	$ 5,688,385	$ 12,651,197	20%
CAPITAL OUTLAY	$ 8,704,472	$ 1,701,000	$ 513,448	$ 6,490,024	6%
GRANTS, AIDS AND OTHER	$ 438,180	$ 325,260	$ 110,770	$ 2,150	25%
NON-OPERATING USES	$ 37,497,453	$ -	$ 21,108,880	$ 16,388,573	56%
EXPENSE TOTALS	**$ 95,800,546**	**$ 12,301,979**	**$ 32,878,997**	**$ 50,619,570**	47%
REVENUE TOTALS	**$ 95,800,546**	**$ -**	**$ 25,157,267**	**$ 70,643,279**	**26%**
EXPENSE TOTALS	**$ 95,800,546**	**$ 12,301,979**	**$ 32,878,997**	**$ 50,619,570**	**47%**
**	**$ -**	**$ (12,301,979)**	**$ (7,721,730)**	**$ 20,023,709**	

*Fund Balance is a budgeted revenue, not actual revenue.

**Unaudited

CITY OF COCOA, FLORIDA

FUND 421 WATER/SEWER FUND

ACCOUNT		ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
330		INTERGOVERNMENTAL REVENUE								
331		FEDERAL GRANTS								
	30 02	FDEM H0477 LS#1	0	.00		0	.00		0	.00
	50 01	FEDERAL DISASTER REIMB	0	.00		0	.00		0	.00
331	**	FEDERAL GRANTS	0	.00		0	.00		0	.00
334		STATE GRANT								
	50 01	STATE DISASTER REIMB	0	.00		0	.00		0	.00
334	**	STATE GRANT	0	.00		0	.00		0	.00
337		GRANTS FROM LOCAL UNITS								
	30 00	PHYSICAL ENVIRONMENT	0	.00		0	.00		0	.00
337	**	GRANTS FROM LOCAL UNITS	0	.00		0	.00		0	.00
330	***	INTERGOVERNMENTAL REVENUE	0	.00		0	.00		0	.00
340		CHARGES FOR SERVICES								
343		PHYSICAL ENVIRONMENT								
	30 10	EARNED NOT BILLED	0	.00		0	.00		0	.00
	31 00	WATER SALES	5,385,017	5,369,922.16	100	21,540,068	20,505,830.44	95	64,620,205	44,114,374.56
	33 00	WATER CONNECTION FEE	47,267	67,303.14	142	189,068	243,931.62	129	567,211	323,279.38
	36 00	WATER HYDRANT FEES	327,416	352,706.58	108	1,309,664	1,412,548.55	108	3,928,996	2,516,447.45
	39 06	HYDRANT RESID FLOW TEST	141	1,350.00	957	564	4,050.00	718	1,696	2,354.00-
	39 07	BACKFLOW DEVICE TEST	12,808	18,972.51	148	51,232	75,833.65	148	153,700	77,866.35
	39 08	JUMPER METERS	61	410.00	672	244	1,380.00	566	742	638.00-
	39 09	PLAN REVIEW/CONST INSPECT	1,060	1,500.00	142	4,240	13,500.00	318	12,720	780.00-
	39 10	BACKFLOW PRV/RLCT TEMP	44	205.42	467	176	421.68	240	530	108.32
	39 *	WATER OTHER INCOME	14,114	22,437.93	159	56,456	95,185.33	169	169,388	74,202.67
	51 00	SEWER SALES	613,203	682,560.82	111	2,452,812	2,485,394.64	101	7,358,443	4,873,048.36
	51 10	EARNED NOT BILLED	0	.00		0	.00		0	.00
	51 *	SEWER SALES	613,203	682,560.82	111	2,452,812	2,485,394.64	101	7,358,443	4,873,048.36
	53 02	SEWER CONN INDIAN HILLS	0	.00		0	.00		0	.00
	59 01	GREASE TRAP PERMITS	547	775.62	142	2,188	3,120.39	143	6,572	3,451.61
	60 00	REUSE WATER SALES	36,274	35,471.40	98	145,096	140,306.48	97	435,290	294,983.52
	60 01	REUSE WATER INSTALLATION	618	12.54	2	2,472	1,527.28	62	7,420	5,892.72
	60 10	EARNED NOT BILLED	0	.00		0	.00		0	.00
	60 *	REUSE WATER SALES	36,892	35,483.94	96	147,568	141,833.76	96	442,710	300,876.24
	90 10	OTHER EARNED NOT BILLED	0	.00		0	.00		0	.00
343	**	PHYSICAL ENVIRONMENT	6,424,456	6,531,190.19	102	25,697,824	24,887,844.73	97	77,093,525	52,205,680.27
340	***	CHARGES FOR SERVICES	6,424,456	6,531,190.19		25,697,824	24,887,844.73		77,093,525	52,205,680.27

CITY OF COCOA, FLORIDA

FUND 421 WATER/SEWER FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
360	MISCELLANEOUS REVENUES								
361	INTEREST & OTHER EARNINGS								
10 00	INTEREST	0	.00		0	4,324.28		0	4,324.28-
10 02	INVESTMENT INTEREST	41,757	.00		167,028	170,126.66	102	501,087	330,960.34
10 11	INTEREST/CBOS	0	.00		0	.00		0	.00
10 *	INTEREST	41,757	.00		167,028	174,450.94	104	501,087	326,636.06
30 00	NET INC/DEC FMV INVESTMNT	0	.00		0	.00		0	.00
40 00	GAIN/(LOSS) SALE INVEST	0	.00		0	.00		0	.00
40 02	UNREALIZED GAIN/(LOSS)	0	.00		0	.00		0	.00
40 *	GAIN/(LOSS) SALE INVEST	0	.00		0	.00		0	.00
361 **	INTEREST & OTHER EARNINGS	41,757	.00		167,028	174,450.94	104	501,087	326,636.06
362	RENT AND ROYALTIES								
00 00	RENT AND ROYALTIES	114	.00		456	1,300.00	285	1,378	78.00
362 **	RENT AND ROYALTIES	114	.00		456	1,300.00	285	1,378	78.00
364	DISPOSITION FIXED ASSETS								
00 00	DISPOSITION FIXED ASSETS	0	.00		0	.00		0	.00
10 00	GAIN/(LOSS)SALE OF F/A	833	.00		3,332	1,102.57	33	10,000	8,897.43
364 **	DISPOSITION FIXED ASSETS	833	.00		3,332	1,102.57	33	10,000	8,897.43
365	SALE SURPLUS MTRLS &SCRAP								
00 00	SALE SURPLUS MTRLS &SCRAP	265	.00		1,060	2,865.10	270	3,180	314.90
365 **	SALE SURPLUS MTRLS &SCRAP	265	.00		1,060	2,865.10	270	3,180	314.90
369	OTHER MISC REVENUES								
90 00	OTHER MISC REVENUES	4,308	2,362.32	55	17,232	74,358.60	432	51,705	22,653.60-
90 06	SETTLEMENTS	0	.00		0	.00		0	.00
90 *	OTHER MISC REVENUES	4,308	2,362.32	55	17,232	74,358.60	432	51,705	22,653.60-
96 00	INSURANCE REFUND/PROCEEDS	0	.00		0	15,345.00		0	15,345.00-
369 **	OTHER MISC REVENUES	4,308	2,362.32	55	17,232	89,703.60	521	51,705	37,998.60-
360 ***	MISCELLANEOUS REVENUES	47,277	2,362.32		189,108	269,422.21		567,350	297,927.79
380	OTHER SOURCES(NON-REV)								
381	INTERFUND TRANSFER								
91 01	GENERAL FUND (001)	0	.00		0	.00		0	.00
91 24	RENEW & REPLACE (424)	16,659	.00		66,636	.00		199,904	199,904.00

CITY OF COCOA, FLORIDA

FUND 421 WATER/SEWER FUND

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
91 25	TRF FROM W/S REST (425)	0	.00		0	.00		0	.00
91 26	TRF FROM W/S 2018B (426)	0	.00		0	.00		0	.00
91 42	W/S IMPACT FEE (422)	0	.00		0	.00		0	.00
91 52	TRF FROM WORK COMP (520)	0	.00		0	.00		0	.00
91 *	TRANSFER FROM	16,659	.00		66,636	.00		199,904	199,904.00
381 **	INTERFUND TRANSFER	16,659	.00		66,636	.00		199,904	199,904.00
383	INSTLMT PURCH/CAP LEASE								
10 00	LEASE PROCEEDS	0	.00		0	.00		0	.00
383 **	INSTLMT PURCH/CAP LEASE	0	.00		0	.00		0	.00
389	NON OPERATING SOURCES								
30 01	SRF LOAN PROCEEDS	0	.00		0	.00		0	.00
85 00	CAP CONTRIB PRIVATE SRCS	0	.00		0	.00		0	.00
99 10	CASH CARRY FORWARD	0	.00		0	.00		0	.00
99 11	RESTR. CASH CARRY FORWARD	0	.00		0	.00		0	.00
99 50	FUND BAL-APPROP. RESERVES	1,656,295	.00		4,689,391	.00		17,939,767	17,939,767.00
99 *	BALANCE FORWARD	1,656,295	.00		4,689,391	.00		17,939,767	17,939,767.00
389 **	NON OPERATING SOURCES	1,656,295	.00		4,689,391	.00		17,939,767	17,939,767.00
380 ***	OTHER SOURCES(NON-REV)	1,672,954	.00		4,756,027	.00		18,139,671	18,139,671.00
FUND TOTAL	WATER/SEWER FUND	8,144,687	6,533,552.51		30,642,959	25,157,266.94		95,800,546	70,643,279.06
GRAND TOTAL		8,144,687	6,533,552.51		30,642,959	25,157,266.94		95,800,546	70,643,279.06

REPORT SELECTIONS

Fiscal year . . . . . : 2024
Fund . . . . . : 421
All Departments
All Divisions
Suppress accounts with zero balances . . . . : N

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
11-00	EXECUTIVE SALARIES	14297	13161.60	92	57188	52646.40	92	.00	171571	118924.60	31
11 **	EXECUTIVE SALARIES	14297	13161.60	92	57188	52646.40	92	.00	171571	118924.60	31
12-00	REGULAR SALARIES & WAGES	987574	748225.85	76	3950296	3056859.13	77	.00	11850922	8794062.87	26
12-10	SALARY ADJUSTMENTS	0	.00	0	0	.00	0	.00	0	.00	0
12-12	ACCRUAL PAYOUTS	0	62512.52	0	0	79197.73	0	.00	0	79197.73-	0
12-15	SETTLEMENT WAGES	0	.00	0	0	.00	0	.00	0	.00	0
12 **	REGULAR SALARIES & WAGES	987574	810738.37	82	3950296	3136056.86	79	.00	11850922	8714865.14	27
13-00	OTHER SALARIES & WAGES	48163	47681.70	99	192652	158837.10	82	.00	577982	419144.90	28
13 **	OTHER SALARIES & WAGES	48163	47681.70	99	192652	158837.10	82	.00	577982	419144.90	28
14-00	OVERTIME	61812	89840.34	145	247248	295334.19	119	.00	741778	446443.81	40
14-01	COMP TIME	0	.00	0	0	.00	0	.00	0	.00	0
14 **	OVERTIME	61812	89840.34	145	247248	295334.19	119	.00	741778	446443.81	40
15-00	SPECIAL PAY	175	25.00	14	700	100.00	14	.00	2100	2000.00	5
15 **	SPECIAL PAY	175	25.00	14	700	100.00	14	.00	2100	2000.00	5
20-00	CLOTHING/SHOE ALLOWANCE	1787	112.16-	6-	7148	18572.84	260	.00	21470	2897.16	87
20 **	CLOTHING/SHOE ALLOWANCE	1787	112.16-	6-	7148	18572.84	260	.00	21470	2897.16	87
21-00	FICA TAXES	84908	72528.16	85	339632	275895.33	81	.00	1018921	743025.67	27
21 **	FICA TAXES	84908	72528.16	85	339632	275895.33	81	.00	1018921	743025.67	27
22-00	RETIREMENT CONTRIBUTIONS	142787	132489.25	93	571148	585384.21	103	.00	1713460	1128075.79	34
22-01	POLICE/FIRE	0	.00	0	0	.00	0	.00	0	.00	0
22-03	NON FRS RETIREMENT CONT	445	406.04	91	1780	1643.84	92	.00	5346	3702.16	31
22 **	RETIREMENT CONTRIBUTIONS	143232	132895.29	93	572928	587028.05	103	.00	1718806	1131777.95	34
23-00	INSURANCES	2774	2991.44	108	11096	10330.89	93	.00	33318	22987.11	31
23-02	RETIREES OTHER INSURANCES	13138	6950.16	53	52552	43982.16	84	.00	157665	113682.84	28
23-03	CONTRA CIGNA SAVINGS	0	.00	0	0	.00	0	.00	0	.00	0

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
23-04	MEDICAL	274768	203531.82	74	1099072	699866.77	64	.00	3297259	2597392.23	21
23-05	HEALTH RETIREES 50%	1408	928.90	66	5632	3715.60	66	.00	16903	13187.40	22
23-06	HEALTH RETIREES 100%	3756	3715.60	99	15024	13933.50	93	.00	45074	31140.50	31
23-07	DENTAL INSURANCE	12245	8796.08	72	48980	30853.16	63	.00	146979	116125.84	21
23-08	VISION INSURANCE	2181	1627.82	75	8724	5706.44	65	.00	26217	20510.56	22
23-09	LONG TERM DISABILITY	2837	3070.88	108	11348	10609.44	94	.00	34087	23477.56	31
23-10	FSA HEALTH	0	.00	0	0	.00	0	.00	0	.00	0
23-11	FSA CHILDCARE	0	.00	0	0	.00	0	.00	0	.00	0
23-99	OPEB HEALTH EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
23 **	INSURANCES	313107	231612.70	74	1252428	818997.96	65	.00	3757502	2938504.04	22
24-00	WORKER'S COMPENSATION	42321	16416.12	39	169284	73785.87	44	.00	507888	434102.13	15
24 **	WORKER'S COMPENSATION	42321	16416.12	39	169284	73785.87	44	.00	507888	434102.13	15
25-00	UNEMPLOYMENT COMPENSATION	833	.00	0	3332	.00	0	.00	10000	10000.00	0
25 **	UNEMPLOYMENT COMPENSATION	833	.00	0	3332	.00	0	.00	10000	10000.00	0
26-00	OPEB HEALTH EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
26 **	OPEB HEALTH EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
27-00	BENEFIT OFFSET	13850	11400.00	82	55400	40259.59	73	.00	166200	125940.41	24
27 **	BENEFIT OFFSET	13850	11400.00	82	55400	40259.59	73	.00	166200	125940.41	24
31-00	PROFESSIONAL SERVICES	40553	21568.50	53	152779	44074.50	29	101169.25	477218	331974.25	30
31-01	LEGAL EXPENSES	47264	5217.20	11	167028	27244.72	16	107489.12	545139	410405.16	25
31-02	MEDICAL SERVICES	0	.00	0	0	.00	0	.00	0	.00	0
31-03	ENGINEERING SERVICES	210836	263966.66	125	829266	372763.01	45	1780183.09	2515956	363009.90	86
31-33	EMPLOYEE HEALTH CENTER	0	.00	0	0	.00	0	.00	0	.00	0
31 **	PROFESSIONAL SERVICES	298653	290752.36	97	1149073	444082.23	39	1988841.46	3538313	1105389.31	69
32-00	ACCOUNTING & AUDITING	0	.00	0	0	.00	0	.00	0	.00	0

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
32 **	ACCOUNTING & AUDITING	0	.00	0	0	.00	0	.00	0	.00	0
34-00	CONTRACT SERVICES	166759	79120.96	47	663129	172883.29	26	577270.79	1997231	1247076.92	38
34-09	MOWING CONTRACTS	0	.00	0	0	.00	0	.00	0	.00	0
34-10	COST OF GENERAL FUND SVCS	0	.00	0	0	.00	0	.00	0	.00	0
34 **	CONTRACT SERVICES	166759	79120.96	47	663129	172883.29	26	577270.79	1997231	1247076.92	38
39-00	CONTINGENCY	108333	.00	0	433332	.00	0	.00	1300000	1300000.00	0
39-02	BOND RESERVE	0	.00	0	0	.00	0	.00	0	.00	0
39-15	WAGE AND SALARY	0	.00	0	0	.00	0	.00	0	.00	0
39 **	CONTINGENCY	108333	.00	0	433332	.00	0	.00	1300000	1300000.00	0
40-00	TRAVEL AND PER DIEM	1492	2651.75	178	5968	4393.77	74	.00	17938	13544.23	25
41-00	COMMUNICATION	19161	23486.68	123	76335	64113.04	84	134011.21	229661	31536.75	86
41 **	COMMUNICATION	19161	23486.68	123	76335	64113.04	84	134011.21	229661	31536.75	86
42-00	FREIGHT & POSTAGE SERVICE	976	55.92	6	3904	283.61	7	.00	11740	11456.39	2
42 **	FREIGHT & POSTAGE SERVICE	976	55.92	6	3904	283.61	7	.00	11740	11456.39	2
43-00	ELECTRIC/WATER/SEWER	174673	198191.88	114	698692	594331.08	85	1416340.30	2096105	85433.62	96
43 **	ELECTRIC/WATER/SEWER	174673	198191.88	114	698692	594331.08	85	1416340.30	2096105	85433.62	96
44-00	RENTAL AND LEASES	3081	3602.00	117	12324	14949.26	121	6646.42	37000	15404.32	58
44-21	DUKE ENERGY-GENERATOR	0	.00	0	0	.00	0	.00	0	.00	0
44 **	RENTAL AND LEASES	3081	3602.00	117	12324	14949.26	121	6646.42	37000	15404.32	58
45-00	INSURANCE	105017	.00	0	424159	480713.90	113	.00	1264307	783593.10	38
45 **	INSURANCE	105017	.00	0	424159	480713.90	113	.00	1264307	783593.10	38
46-00	REPAIRS & MAINTENANCE	509054	430944.41	85	2039381	1562306.67	77	1232699.38	6111840	3316833.95	46
46-02	REPAIR/MAINT BUILDING	25100	1618.28	6	67110	12490.07	19	14311.22	267918	241116.71	10

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
46-03	REPAIR/MAINT-VEHICLES	27269	36335.74	133	108182	42195.20	39	4471.84	326376	279708.96	14
46-15	INSURED VEHICLE ACCIDENT	0	.00	0	0	.00	0	.00	0	.00	0
46 **	REPAIRS & MAINTENANCE	561423	468898.43	84	2214673	1616991.94	73	1251482.44	6706134	3837659.62	43
47-00	PRINTING & BINDING	949	.00	0	3796	60.00	2	20.00	11420	11340.00	1
47 **	PRINTING & BINDING	949	.00	0	3796	60.00	2	20.00	11420	11340.00	1
48-00	PROMOTIONAL ACTIVITIES	2083	4345.00	209	8332	8470.00	102	1600.00	25000	14930.00	40
48 **	PROMOTIONAL ACTIVITIES	2083	4345.00	209	8332	8470.00	102	1600.00	25000	14930.00	40
49-00	OTHER CHARGES & OBLIG.	3796	1973.95	52	15184	25362.34	167	5000.00	45602	15239.66	67
49-02	ADVERTISING	0	.00	0	0	.00	0	.00	0	.00	0
49-07	BAD DEBT EXPENSE	0	9048.95-	0	0	18913.30-	0	.00	0	18913.30	0
49-08	CASH OVER & UNDER	0	58.03-	0	0	77.93-	0	.00	0	77.93	0
49-09	DOCUMENT RECORDING CHGS	500	227.00-	45-	2000	1306.30-	65-	5226.30	6000	2080.00	65
49-15	OBSOLETE INVENTORY	0	.00	0	0	.00	0	.00	0	.00	0
49-17	DAMAGED INVENTORY	0	.00	0	0	.00	0	.00	0	.00	0
49-31	OVERHEAD ALLOCATION	0	.00	0	0	.00	0	.00	0	.00	0
49 **	OTHER CHARGES & OBLIG.	4296	7360.03-	171-	17184	5064.81	30	10226.30	51602	36310.89	30
51-00	OFFICE SUPPLIES	2047	1513.40	74	8188	3811.05	47	.00	24614	20802.95	16
51 **	OFFICE SUPPLIES	2047	1513.40	74	8188	3811.05	47	.00	24614	20802.95	16
52-00	OPERATING SUPPLIES	65067	60597.78	93	260267	224136.76	86	194167.84	780839	362534.40	54
52-02	UNIFORMS-PURCHASED	0	767.22	0	0	4329.62	0	.00	0	4329.62-	0
52-07	JANITORIAL SUPPLIES	769	612.24	80	3076	2790.83	91	.00	9240	6449.17	30
52-09	CHEMICALS	532427	518575.55	97	2129708	1694455.86	80	4605781.31	6389130	88892.83	99
52-30	FUEL OIL & LUBRICANTS	44930	50359.38	112	179720	98872.15	55	18873.19	539196	421450.66	22
52-33	EMPLOYEE HEALTH CENTER	0	.00	0	0	.00	0	.00	0	.00	0
52 **	OPERATING SUPPLIES	643193	630912.17	98	2572771	2024585.22	79	4818822.34	7718405	874997.44	89

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
53-00	ROAD MATERIALS/SUPPLIES	3748	.00	0	14992	.00	0	35000.00	45000	10000.00	78
53 **	ROAD MATERIALS/SUPPLIES	3748	.00	0	14992	.00	0	35000.00	45000	10000.00	78
54-00	MEMBERSHIP/PUBLICATIONS	3435	39.95	1	13740	34062.36	248	.00	41245	7182.64	83
54 **	MEMBERSHIP/PUBLICATIONS	3435	39.95	1	13740	34062.36	248	.00	41245	7182.64	83
55-00	TRAINING	6433	1288.38	20	24528	8746.63	36	16686.55	76027	50593.82	34
55-01	EDA PROGRAM	416	.00	0	1664	318.42	19	.00	5000	4681.58	6
55 **	TRAINING	6849	1288.38	19	26192	9065.05	35	16686.55	81027	55275.40	32
56-00	TECHNOLOGY SYSTEMS	0	.00	0	0	.00	0	.00	0	.00	0
56-15	IT-RELATED OPERATING EXP	334877	1837.12	1	739508	210524.75	29	18771.00	3418559	3189263.25	7
56 **	TECHNOLOGY SYSTEMS	334877	1837.12	1	739508	210524.75	29	18771.00	3418559	3189263.25	7
59-00	DEPRECIATION EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
59 **	DEPRECIATION EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
61-00	LAND	0	.00	0	0	.00	0	.00	0	.00	0
61 **	LAND	0	.00	0	0	.00	0	.00	0	.00	0
62-00	BUILDINGS	0	.00	0	0	.00	0	.00	0	.00	0
62 **	BUILDINGS	0	.00	0	0	.00	0	.00	0	.00	0
63-00	INFRASTRUCTURE	522194	.00	0	1211054	.00	0	477157.36	5388610	4911452.64	9
63-06	FDEM H0477 LS#1	0	.00	0	0	.00	0	.00	0	.00	0
63-07	IMPROVE OTHER THAN BLDG	0	.00	0	0	.00	0	.00	0	.00	0
63 **	INFRASTRUCTURE	522194	.00	0	1211054	.00	0	477157.36	5388610	4911452.64	9
64-00	MACHINERY & EQUIPMENT	256592	298265.00	116	716453	507050.00	71	746582.05	2769203	1515570.95	45
64-15	IT HARDWARE	51400	4108.00	8	135434	6397.50	5	477260.60	546659	63000.90	89
64-60	SBITA INTANG ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
64 **	MACHINERY & EQUIPMENT	307992	302373.00	98	851887	513447.50	60	1223842.65	3315862	1578571.85	52
65-00	CONSTRUCTION IN PROGRESS	0	.00	0	0	.00	0	.00	0	.00	0

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
65 **	CONSTRUCTION IN PROGRESS	0	.00	0	0	.00	0	.00	0	.00	0
68-10	SFTWR & OTHER INTANGIBLES	0	.00	0	0	.00	0	.00	0	.00	0
68 **	INTANGIBLE ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
69-99	CONTRA FIXED ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
69 **	PROPRIETARY FUNDS	0	.00	0	0	.00	0	.00	0	.00	0
71-20	SERIES 2020	0	.00	0	0	.00	0	.00	0	.00	0
71-32	LEASED ASSET-GENERATOR	28293	28051.32	99	113172	83949.37	74	255561.01	339510	.38-	100
71 **	DEBT SERVICE - PRINCIPAL	28293	28051.32	99	113172	83949.37	74	255561.01	339510	.38-	100
72-32	LEASED ASSET-GENERATOR	7848	8088.68	103	31392	24470.63	78	69698.99	94170	.38	100
72 **	DEBT SERVICE - INTEREST	7848	8088.68	103	31392	24470.63	78	69698.99	94170	.38	100
73-00	OTHER DEBT SERVICE COST	275	.00	0	1100	2350.00	214	.00	3300	950.00	71
73-32	GENERATOR	0	.00	0	0	.00	0	.00	0	.00	0
73-33	SBITA ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
73 **	INTANG AMORT EXP	275	.00	0	1100	2350.00	214	.00	3300	950.00	71
82-00	AID TO PRIVATE ORGANIZAT	100	.00	0	400	.00	0	.00	1200	1200.00	0
82-01	ECON DEV INCENTIVE CONTR	0	.00	0	0	.00	0	.00	0	.00	0
82 **	AID TO PRIVATE ORGANIZAT	100	.00	0	400	.00	0	.00	1200	1200.00	0
91-01	TO GENERAL FUND (001)	0	.00	0	0	.00	0	.00	0	.00	0
91-02	TO GEN FUND ROI (001)	640777	640777.92	100	2563108	2563111.68	100	.00	7689335	5126223.32	33
91-23	TO STORMWATER (423)	0	.00	0	0	.00	0	.00	0	.00	0
91-24	RENEWAL & REPLACE (424)	1070666	.00	0	4282557	12846709.00	300	.00	12847891	1182.00	100
91-25	TO RESTRCTD ASSET (425)	609019	620431.86	102	2436076	2481727.44	102	.00	7308232	4826504.56	34
91-26	TO W/S 2018B (426)	0	.00	0	0	.00	0	.00	0	.00	0
91-27	TO TCR/SJR PROJ (427)	0	.00	0	0	.00	0	.00	0	.00	0
91-30	TO GF CAP PROJ (301)	0	.00	0	0	.00	0	.00	0	.00	0

FUND 421 WATER/SEWER FUND

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
91-42	IMPACT FEES FUND (422)	0	.00	0	0	.00	0	.00	0	.00	0
91-52	TO W/C INS FUND (520)	0	.00	0	0	.00	0	.00	0	.00	0
91-53	TO HEALTH INS FUND (530)	0	.00	0	0	.00	0	.00	0	.00	0
91 **	INTERFUND TRANSFER	2320462	1261209.78	54	9281741	17891548.12	193	.00	27845458	9953909.88	64
94-01	TXFR TO GF OH ALLOC (001)	664154	664154.00	100	2656616	2656616.00	100	.00	7969848	5313232.00	33
94 **	INTERFUND TRANSFER	664154	664154.00	100	2656616	2656616.00	100	.00	7969848	5313232.00	33
95-01	TXFR TO GF 6% PLOFF (001)	140178	140178.92	100	560712	560715.68	100	.00	1682147	1121431.32	33
95 **	NONOPERATING	140178	140178.92	100	560712	560715.68	100	.00	1682147	1121431.32	33
FUND 421	TOTAL *********										
	WATER/SEWER FUND	8144600	5529578.79	68	30642602	32878996.85	107	12301978.82	95800546	50619570.33	47
GRAND	TOTAL *********										
		8144600	5529578.79	68	30642602	32878996.85	107	12301978.82	95800546	50619570.33	47

FY 2024 Budget by Classification Report - Summary Listing

1/31/2024

Target for January 2024 is 33%

FUND 423 - STORMWATER FUND

	Amended Budget	YTD Encumbrances	YTD Actual Transactions	Budget - YTD Transactions	% Used/Rec'd
REVENUE					
*STORMWATER ASSESSMENT	$ 2,183,841	$ -	$ 1,773,604	$ 410,237	81%
CHARGES FOR SERVICES	$ -	$ -	$ 3	$ (3)	0%
INTERGOVERNMENTAL/GRANT	$ 888,000	$ -	$ -	$ 888,000	0%
MISCELLANEOUS	$ 9,287	$ -	$ 37,101	$ (27,814)	399%
**OTHER SOURCES (NON-REVENUE)	$ 954,282	$ -	$ -	$ 954,282	0%
REVENUE TOTALS	**$ 4,035,410**	**$ -**	**$ 1,810,707**	**$ 2,224,703**	**45%**
EXPENSE					
SALARIES AND BENEFITS	$ 682,295	$ -	$ 127,559	$ 554,736	19%
OPERATING EXPENDITURES	$ 938,844	$ 69,873	$ 115,772	$ 753,200	12%
CAPITAL OUTLAY	$ 2,101,768	$ 889,497	$ 873,726	$ 338,545	42%
OTHER SOURCES (NON-REVENUE)	$ -	$ -	$ -	$ -	0%
NON-OPERATING USES	$ 312,503	$ -	$ 104,168	$ 208,335	33%
EXPENSE TOTALS	**$ 4,035,410**	**$ 959,370**	**$ 1,221,225**	**$ 1,854,816**	**54%**
REVENUE TOTALS	**$ 4,035,410**	**$ -**	**$ 1,810,707**	**$ 2,224,703**	**45%**
EXPENSE TOTALS	**$ 4,035,410**	**$ 959,370**	**$ 1,221,225**	**$ 1,854,816**	**54%**
	$ -	**$ (959,370)**	**$ 589,483**	**$ 369,887**	

*Stormwater Assessment Revenues come in November-March

CITY OF COCOA, FLORIDA

FUND 423 STORMWATER UTILITY

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	%REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	%REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
320	OTHER PERMITS & FEES								
325	SPECIAL ASSESSMENT								
23 01	STRMWTR SPEC ASSMNT	172,802	79,072.03	46	691,208	1,785,115.44	258	2,073,634	288,518.56
23 02	DELINQUENT TAX	0	.00		0	10,622.52-		0	10,622.52
23 03	PENALTIES	0	.00		0	889.19-		0	889.19
23 04	TAX CERTIFICATES	9,183	.00		36,732	.00		110,207	110,207.00
23 *	STORMWATER	181,985	79,072.03	43	727,940	1,773,603.73	244	2,183,841	410,237.27
325 **	SPECIAL ASSESSMENT	181,985	79,072.03	43	727,940	1,773,603.73	244	2,183,841	410,237.27
320 ***	OTHER PERMITS & FEES	181,985	79,072.03		727,940	1,773,603.73		2,183,841	410,237.27
330	INTERGOVERNMENTAL REVENUE								
331	FEDERAL GRANTS								
50 01	FEDERAL DISASTER REIMB	0	.00		0	.00		0	.00
331 **	FEDERAL GRANTS	0	.00		0	.00		0	.00
334	STATE GRANT								
36 35	US1/FOREST AV S/W FACILTY	12,000	.00		24,000	.00		120,000	120,000.00
36 36	N FSK S/W PND FLOAT WTLND	76,800	.00		153,600	.00		768,000	768,000.00
36 69	DIX/IRVR DR RESIL 23FRP03	0	.00		0	.00		0	.00
36 *	STORMWATER MANAGEMENT	88,800	.00		177,600	.00		888,000	888,000.00
334 **	STATE GRANT	88,800	.00		177,600	.00		888,000	888,000.00
338	SHARED REVENUE LOCAL UNIT								
10 00	SHARED REV - BREVARD CTY	0	.00		0	.00		0	.00
10 02	CHURCH STREET BAFFLE BOX	0	.00		0	.00		0	.00
10 05	SAVE OUR INDIAN RVR LAGN	0	.00		0	.00		0	.00
10 *	SHARED REV - BREVARD CTY	0	.00		0	.00		0	.00
338 **	SHARED REVENUE LOCAL UNIT	0	.00		0	.00		0	.00
330 ***	INTERGOVERNMENTAL REVENUE	88,800	.00		177,600	.00		888,000	888,000.00
340	CHARGES FOR SERVICES								
343	PHYSICAL ENVIRONMENT								
91 00	STORMWATER FEES	0	2.57		0	2.57		0	2.57-
91 10	EARNED NOT BILLED	0	.00		0	.00		0	.00
91 *	STORMWATER FEES	0	2.57		0	2.57		0	2.57-
343 **	PHYSICAL ENVIRONMENT	0	2.57		0	2.57		0	2.57-
340 ***	CHARGES FOR SERVICES	0	2.57		0	2.57		0	2.57-

CITY OF COCOA, FLORIDA

FUND 423 STORMWATER UTILITY

ACCOUNT	ACCOUNT DESCRIPTION	CURRENT ESTIMATED	CURRENT ACTUAL	CURRENT %REV	YEAR-TO-DATE ESTIMATED	YEAR-TO-DATE ACTUAL	YEAR-TO-DATE %REV	ANNUAL ESTIMATE	UNREALIZED BALANCE
360	MISCELLANEOUS REVENUES								
361	INTEREST & OTHER EARNINGS								
10 00	INTEREST	740	.00		2,960	1,251.06	42	8,887	7,635.94
10 02	INVESTMENT INTEREST	0	.00		0	.00		0	.00
10 10	SBA ACCOUNT 121328	0	.00		0	35,695.06		0	35,695.06-
10 *	INTEREST	740	.00		2,960	36,946.12	1248	8,887	28,059.12-
30 00	NET INC/DEC FMV INVESTMNT	0	.00		0	.00		0	.00
40 00	GAIN/(LOSS) SALE INVEST	0	.00		0	.00		0	.00
40 02	UNREALIZED GAIN/(LOSS)	0	.00		0	.00		0	.00
40 *	GAIN/(LOSS) SALE INVEST	0	.00		0	.00		0	.00
361 **	INTEREST & OTHER EARNINGS	740	.00		2,960	36,946.12	1248	8,887	28,059.12-
364	DISPOSITION FIXED ASSETS								
00 00	DISPOSITION FIXED ASSETS	0	.00		0	.00		0	.00
364 **	DISPOSITION FIXED ASSETS	0	.00		0	.00		0	.00
369	OTHER MISC REVENUES								
90 00	OTHER MISC REVENUES	33	.00		132	154.91	117	400	245.09
369 **	OTHER MISC REVENUES	33	.00		132	154.91	117	400	245.09
360 ***	MISCELLANEOUS REVENUES	773	.00		3,092	37,101.03		9,287	27,814.03-
380	OTHER SOURCES(NON-REV)								
381	INTERFUND TRANSFER								
91 01	GENERAL FUND (001)	0	.00		0	.00		0	.00
91 21	TRF FROM W/S FUND (421)	0	.00		0	.00		0	.00
91 *	TRANSFER FROM	0	.00		0	.00		0	.00
381 **	INTERFUND TRANSFER	0	.00		0	.00		0	.00
389	NON OPERATING SOURCES								
85 00	CAP CONTRIB PRIVATE SRCS	0	.00		0	.00		0	.00
90 00	NON OPERATING SOURCES	0	.00		0	.00		0	.00
99 10	CASH CARRY FORWARD	0	.00		0	.00		0	.00
99 50	FUND BAL-APPROP. RESERVES	83,473	.00		286,494	.00		954,282	954,282.00
99 *	BALANCE FORWARD	83,473	.00		286,494	.00		954,282	954,282.00
389 **	NON OPERATING SOURCES	83,473	.00		286,494	.00		954,282	954,282.00
380 ***	OTHER SOURCES(NON-REV)	83,473	.00		286,494	.00		954,282	954,282.00
FUND TOTAL	STORMWATER UTILITY	355,031	79,074.60		1,195,126	1,810,707.33		4,035,410	2,224,702.67
GRAND TOTAL		355,031	79,074.60		1,195,126	1,810,707.33		4,035,410	2,224,702.67

REPORT SELECTIONS

Fiscal year . . . . . : 2024
Fund . . . . . : 423
All Departments
All Divisions
Suppress accounts with zero balances . . . . : N

FUND 423 STORMWATER UTILITY

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
12-00	REGULAR SALARIES & WAGES	35584	21566.74	61	142336	81581.34	57	.00	427011	345429.66	19
12-10	SALARY ADJUSTMENTS	0	.00	0	0	.00	0	.00	0	.00	0
12-12	ACCRUAL PAYOUTS	0	.00	0	0	.00	0	.00	0	.00	0
12 **	REGULAR SALARIES & WAGES	35584	21566.74	61	142336	81581.34	57	.00	427011	345429.66	19
13-00	OTHER SALARIES & WAGES	0	.00	0	0	.00	0	.00	0	.00	0
13 **	OTHER SALARIES & WAGES	0	.00	0	0	.00	0	.00	0	.00	0
14-00	OVERTIME	533	229.91	43	2132	1373.43	64	.00	6400	5026.57	22
14-01	COMP TIME	0	.00	0	0	.00	0	.00	0	.00	0
14 **	OVERTIME	533	229.91	43	2132	1373.43	64	.00	6400	5026.57	22
15-00	SPECIAL PAY	0	25.00	0	0	100.00	0	.00	0	100.00-	0
15 **	SPECIAL PAY	0	25.00	0	0	100.00	0	.00	0	100.00-	0
20-00	CLOTHING/SHOE ALLOWANCE	50	.00	0	200	600.00	300	.00	600	.00	100
20 **	CLOTHING/SHOE ALLOWANCE	50	.00	0	200	600.00	300	.00	600	.00	100
21-00	FICA TAXES	2772	1610.23	58	11088	6272.56	57	.00	33269	26996.44	19
21 **	FICA TAXES	2772	1610.23	58	11088	6272.56	57	.00	33269	26996.44	19
22-00	RETIREMENT CONTRIBUTIONS	4379	2957.79	68	17516	11256.02	64	.00	52553	41296.98	21
22-01	GASB68 PENS EXP	0	.00	0	0	.00	0	.00	0	.00	0
22 **	RETIREMENT CONTRIBUTIONS	4379	2957.79	68	17516	11256.02	64	.00	52553	41296.98	21
23-00	INSURANCES	108	82.22	76	432	270.80	63	.00	1302	1031.20	21
23-03	CONTRA CIGNA SAVINGS	0	.00	0	0	.00	0	.00	0	.00	0
23-04	MEDICAL	7986	5604.88	70	31944	17699.24	55	.00	95834	78134.76	19
23-07	DENTAL INSURANCE	309	260.34	84	1236	844.74	68	.00	3716	2871.26	23
23-08	VISION INSURANCE	58	43.08	74	232	140.73	61	.00	707	566.27	20
23-09	LONG TERM DISABILITY	109	83.32	76	436	274.29	63	.00	1316	1041.71	21
23-10	FSA HEALTH	0	.00	0	0	.00	0	.00	0	.00	0

FUND 423 STORMWATER UTILITY

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
23-11	FSA CHILDCARE	0	.00	0	0	.00	0	.00	0	.00	0
23-99	OPEB HEALTH EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
23 **	INSURANCES	8570	6073.84	71	34280	19229.80	56	.00	102875	83645.20	19
24-00	WORKER'S COMPENSATION	4565	1644.84	36	18260	6846.12	38	.00	54787	47940.88	13
24 **	WORKER'S COMPENSATION	4565	1644.84	36	18260	6846.12	38	.00	54787	47940.88	13
26-00	OPEB HEALTH EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
26 **	OPEB HEALTH EXPENSE	0	.00	0	0	.00	0	.00	0	.00	0
27-00	BENEFIT OFFSET	400	100.00	25	1600	300.00	19	.00	4800	4500.00	6
27 **	BENEFIT OFFSET	400	100.00	25	1600	300.00	19	.00	4800	4500.00	6
31-00	PROFESSIONAL SERVICES	17581	5714.75	33	66042	20698.21	31	31701.42	206702	154302.37	25
31-01	LEGAL EXPENSES	41	.00	0	164	.00	0	.00	500	500.00	0
31-33	EMPLOYEE HEALTH CENTER	0	.00	0	0	.00	0	.00	0	.00	0
31 **	PROFESSIONAL SERVICES	17622	5714.75	32	66206	20698.21	31	31701.42	207202	154802.37	25
34-00	CONTRACT SERVICES	9183	3419.64	37	35882	38999.08	109	18742.87	109353	51611.05	53
34-10	COST OF GENERAL FUND SVCS	0	.00	0	0	.00	0	.00	0	.00	0
34 **	CONTRACT SERVICES	9183	3419.64	37	35882	38999.08	109	18742.87	109353	51611.05	53
39-00	CONTINGENCY	32189	.00	0	139304	.00	0	.00	396823	396823.00	0
39 **	CONTINGENCY	32189	.00	0	139304	.00	0	.00	396823	396823.00	0
40-00	TRAVEL & PER DIEM	237	.00	0	948	.00	0	.00	2850	2850.00	0
40 **	TRAVEL & PER DIEM	237	.00	0	948	.00	0	.00	2850	2850.00	0
41-00	COMMUNICATION	173	181.58	105	692	453.86	66	1622.14	2076	.00	100
41 **	COMMUNICATION	173	181.58	105	692	453.86	66	1622.14	2076	.00	100
42-00	POSTAGE & FREIGHT	41	.00	0	164	.00	0	.00	500	500.00	0
42 **	POSTAGE & FREIGHT	41	.00	0	164	.00	0	.00	500	500.00	0
43-00	ELECTRIC/WATER/SEWER	1250	1211.27	97	5000	3644.09	73	8611.40	15000	2744.51	82

FUND 423 STORMWATER UTILITY

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
43 **	ELECTRIC/WATER/SEWER	1250	1211.27	97	5000	3644.09	73	8611.40	15000	2744.51	82
44-00	RENTALS AND LEASES	250	.00	0	1000	.00	0	.00	3000	3000.00	0
44 **	RENTALS AND LEASES	250	.00	0	1000	.00	0	.00	3000	3000.00	0
45-00	INSURANCE	1394	.00	0	5576	6843.37	123	.00	16734	9890.63	41
45 **	INSURANCE	1394	.00	0	5576	6843.37	123	.00	16734	9890.63	41
46-00	REPAIRS & MAINTENANCE	7268	29285.10	403	28952	29864.13	103	5938.40	87100	51297.47	41
46-02	REPAIR/MAINT BUILDING	0	.00	0	0	.00	0	.00	0	.00	0
46-03	REPAIR/MAINT-VEHICLES	3442	4361.03	127	13768	6581.74	48	.00	41314	34732.26	16
46-15	INSURED VEHICLE ACCIDENT	0	.00	0	0	.00	0	.00	0	.00	0
46 **	REPAIRS & MAINTENANCE	10710	33646.13	314	42720	36445.87	85	5938.40	128414	86029.73	33
47-00	PRINTING & BINDING	41	.00	0	164	275.00	168	.00	500	225.00	55
47 **	PRINTING & BINDING	41	.00	0	164	275.00	168	.00	500	225.00	55
49-00	OTHER CHARGES & OBLIG.	22	.00	0	88	.00	0	.00	267	267.00	0
49-02	ADVERTISING	0	.00	0	0	.00	0	.00	0	.00	0
49-07	BAD DEBT EXPENSE	0	128.11-	0	0	390.87-	0	.00	0	390.87	0
49-15	OBSOLETE INVENTORY	0	.00	0	0	.00	0	.00	0	.00	0
49-31	OVERHEAD ALLOCATION	0	.00	0	0	.00	0	.00	0	.00	0
49 **	OTHER CHARGES & OBLIG.	22	128.11-	582-	88	390.87-	444-	.00	267	657.87	146-
51-00	OFFICE SUPPLIES	41	26.60	65	164	48.40	30	.00	500	451.60	10
51 **	OFFICE SUPPLIES	41	26.60	65	164	48.40	30	.00	500	451.60	10
52-00	OPERATING SUPPLIES	922	1003.53	109	3688	2365.92	64	3256.27	11070	5447.81	51
52-02	UNIFORMS-PURCHASED	0	.00	0	0	.00	0	.00	0	.00	0
52-07	JANITORIAL SUPPLIES	0	.00	0	0	.00	0	.00	0	.00	0
52-30	FUEL OIL & LUBRICANTS	2576	2683.00	104	10304	5000.78	49	.00	30915	25914.22	16
52-33	EMPLOYEE HEALTH CENTER	0	.00	0	0	.00	0	.00	0	.00	0

FUND 423 STORMWATER UTILITY

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
52 **	OPERATING SUPPLIES	3498	3686.53	105	13992	7366.70	53	3256.27	41985	31362.03	25
53-00	ROAD MATERIALS/SUPPLIES	0	.00	0	0	.00	0	.00	0	.00	0
53 **	ROAD MATERIALS/SUPPLIES	0	.00	0	0	.00	0	.00	0	.00	0
54-00	MEMBERSHIP/PUBLICATIONS	62	.00	0	248	650.00	262	.00	750	100.00	87
54 **	MEMBERSHIP/PUBLICATIONS	62	.00	0	248	650.00	262	.00	750	100.00	87
55-00	TRAINING	729	.00	0	2916	738.00	25	.00	8750	8012.00	8
55 **	TRAINING	729	.00	0	2916	738.00	25	.00	8750	8012.00	8
56-15	IT-RELATED OPERATING EXP	345	.00	0	1380	.00	0	.00	4140	4140.00	0
56 **	TECHNOLOGY SYSTEMS	345	.00	0	1380	.00	0	.00	4140	4140.00	0
59-00	DEPRECIATION	0	.00	0	0	.00	0	.00	0	.00	0
59 **	DEPRECIATION	0	.00	0	0	.00	0	.00	0	.00	0
61-00	LAND	0	.00	0	0	.00	0	.00	0	.00	0
61 **	LAND	0	.00	0	0	.00	0	.00	0	.00	0
63-00	INFRASTRUCTURE	34745	20842.60	60	96156	56377.00	59	172227.00	374110	145506.00	61
63-07	IMPROVE OTHER THAN BLDG	0	.00	0	0	.00	0	.00	0	.00	0
63-08	FISKE BLVD CEI	0	.00	0	0	.00	0	.00	0	.00	0
63-35	US1/FOREST AV S/W FACILTY	12000	.00	0	24000	.00	0	.00	120000	120000.00	0
63-36	N FSK S/W PND FLOAT WTLND	76800	.00	0	153600	768000.00	500	.00	768000	.00	100
63-69	DIX/IRVR DR RESIL 23FRP03	0	.00	0	0	.00	0	.00	0	.00	0
63-73	FISKE CONSTRUCTION	59774	.00	0	239096	.00	0	717270.00	717291	21.00	100
63 **	INFRASTRUCTURE	183319	20842.60	11	512852	824377.00	161	889497.00	1979401	265527.00	87
64-00	MACHINERY & EQUIPMENT	11019	.00	0	34206	49349.00	144	.00	122367	73018.00	40
64-15	IT HARDWARE	0	.00	0	0	.00	0	.00	0	.00	0
64 **	MACHINERY & EQUIPMENT	11019	.00	0	34206	49349.00	144	.00	122367	73018.00	40
65-00	CONSTRUCTION IN PROGRESS	0	.00	0	0	.00	0	.00	0	.00	0

FUND 423 STORMWATER UTILITY

ELE OBJ	ACCOUNT DESCRIPTION	******MONTH-TO-DATE******* BUDGET	ACTUAL	%EXP	**********YEAR-TO-DATE******* BUDGET	ACTUAL	%EXP	ENCUMBR.	ANNUAL BUDGET	UNENCUMB. BALANCE	% BDGT
65 **	CONSTRUCTION IN PROGRESS	0	.00	0	0	.00	0	.00	0	.00	0
69-99	CONTRA FIXED ASSETS	0	.00	0	0	.00	0	.00	0	.00	0
69 **	PROPRIETARY FUND	0	.00	0	0	.00	0	.00	0	.00	0
72-00	DEBT SERVICE - INTEREST	0	.00	0	0	.00	0	.00	0	.00	0
72 **	DEBT SERVICE - INTEREST	0	.00	0	0	.00	0	.00	0	.00	0
91-01	TO GENERAL FUND (001)	0	.00	0	0	.00	0	.00	0	.00	0
91-21	TO WATER SEWER (421)	0	.00	0	0	.00	0	.00	0	.00	0
91-30	TO GF CAP PROJ (301)	0	.00	0	0	.00	0	.00	0	.00	0
91 **	INTERFUND TRANSFER	0	.00	0	0	.00	0	.00	0	.00	0
94-01	TXFR TO GF OH ALLOC (001)	26041	26041.92	100	104164	104167.68	100	.00	312503	208335.32	33
94 **	INTERFUND TRANSFER	26041	26041.92	100	104164	104167.68	100	.00	312503	208335.32	33
FUND 423	TOTAL *********										
	STORMWATER UTILITY	355019	128851.26	36	1195078	1221224.66	102	959369.50	4035410	1854815.84	54
GRAND	TOTAL *********										
		355019	128851.26	36	1195078	1221224.66	102	959369.50	4035410	1854815.84	54

Legislation Details (With Text)

File #:	24-064	**Version:**	1	**Name:**	
Type:	Informational Item			**Status:**	Agenda Ready
File created:	2/2/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	FY 2024 January Budget Adjustment Report. (Finance Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	FY 2024 REVENUE Budget Tracking Worksheet.pdf FY 2024 EXPENSE Budget Tracking Worksheet.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 7, 2024
Agenda Date: February 27, 2024
Prepared By: Dave Radford, Senior Budget Analyst
Through: Rebecca Bowman, MBA, CGFO, CGFM, Finance Director
Requested Action:
FY 2024 January Budget Adjustment Report

BACKGROUND:

Pursuant to the Cocoa City Charter, Article XII, Section 5.b., the following report details the budget adjustments that were approved in Fiscal Year 2024 thru January 31st, 2024.

STRATEGIC PLAN CONNECTION:

The information contained in this report provides to stakeholders increased transparency related to budget adjustments.

BUDGETARY IMPACT:

None

PREVIOUS ACTION:

None

RECOMMENDED MOTION:
Informational Item Only

FY 2024 BUDGET TRACKING WORKSHEET
REVENUE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
10/12/2023	001-0000-331.20-28	$15,572	ACCEPT JAG GRANT FUNDS RESOLUTION #: 23-115	144
	001-0000-389.99-50	$1,969,004	PROVOST PARK BUDGET FY124 RESOLUTION #: 23-116	145
	001-0000-369.90-04	$5,000	RECEIVE HVE GRANT FUNDS RESOLUTION #: 23-114	143
10/27/2023	001-0000-389.99-50	$450,000	FY 24 PAVING BUDGET RESOLUTION #: 23-126	348
	001-0000-389.99-50	$321,797	PROVOST PARK LIGHTS RESOLUTION #: 23-118	345
	001-0000-389.99-50	$549,028	STRADLEY PARK BUDGET RESOLUTION #: 23-121	347
	001-0000-389.99-50	$132,609		
	001-0000-389.99-50	$10,748		
	001-0000-331.20-29	$12,940	23 BULLET PROOF VST GRANT RESOLUTION #: 23-127	349
11/17/2023	001-0000-389.99-50	($549,028)	STRADLEY PARK PROJECT SHORTFALL	668
	001-0000-389.99-50	$132,609		
	001-0000-389.99-50	$10,748		
	001-0000-389.99-50	($132,609)		
	001-0000-389.99-50	($10,748)		
	001-0000-389.99-50	$549,028		
11/30/2023	001-0000-389.99-50	$127,875	SELL LADDER BUY PMPER TRK RESOLUTION #: 23-139	823
	001-0000-364.00-00	$525,000		
12/15/2023	001-0000-389.99-50	$6,356,024	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071
	001-0000-334.70-11	$4,204	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
	001-0000-331.70-02	$17,700		

FY 2024 BUDGET TRACKING WORKSHEET
REVENUE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
12/15/2023	001-0000-389.99-50	$1,680,019	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
	001-0000-389.99-50	$1,960		
	001-0000-331.20-23	$3,066		
	001-0000-331.20-26	$1,960		
01/16/2024	001-0000-369.90-00	$112,400	FLORIDA CITY GAS PIPELINE RESOLUTION #: 24-008	1503
6	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$12,296,906**
6	**Total Budget Amendments/Transfers**		**GENERAL FUND**	**$12,296,906**
12/15/2023	104-0000-389.99-50	$151,680	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
1	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$151,680**
1	**Total Budget Amendments/Transfers**		**BREVARD COUNTY HOME**	**$151,680**
10/12/2023	105-0000-334.90-01	$14,691	RECEIVE SHIP FUNDS RESOLUTION #: 23-112	142
1	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$14,691**
1	**Total Budget Amendments/Transfers**		**SHIP/COCOA HOUSING TRUST**	**$14,691**
12/15/2023	107-0000-389.99-50	$12,094	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
12/18/2023	107-0000-389.99-50	$3,000	BLD 2 CITIZENSERVE RPRTS RESOLUTION #: 23-144	1098
2	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$15,094**
2	**Total Budget Amendments/Transfers**		**BUILDING PERMITS**	**$15,094**
12/07/2023	110-0000-389.99-50	$86,000	Buy 203 Orange St. Resolution #: CCRA23-752	958
	110-0000-389.99-50	$84,000	Docking & Breakwtr Match RESOLUTION #: CCRA 23-749	959
12/15/2023	110-0000-389.99-50	$2,331,364	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071

FY 2024 BUDGET TRACKING WORKSHEET
REVENUE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
12/15/2023	110-0000-389.99-50	$25,748	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
01/10/2024	110-0000-338.00-00	($106,329)	REDUCED TIF REVENUE RESOLUTION #: CCRA 23-797	1448
3	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$2,420,783**
3	**Total Budget Amendments/Transfers**		**CRA COCOA RDA**	**$2,420,783**
12/15/2023	111-0000-389.99-50	$150,000	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071
	111-0000-389.99-50	$15,292	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
01/31/2024	111-0000-338.00-00	($28,774)	REDUCED TIF REVENUE RESOLUTION # DSCRA-24-003	1760
2	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$136,518**
2	**Total Budget Amendments/Transfers**		**CRA DIAMOND SQUARE 626**	**$136,518**
11/17/2023	130-0000-389.99-50	$62,705	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
12/15/2023	130-0000-331.90-02	$11,818	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071
	130-0000-331.90-02	$18,590		
	130-0000-331.90-02	$128,004		
	130-0000-331.90-02	$198,596		
	130-0000-331.90-02	$62,705		
	130-0000-331.90-02	$55,925		
	130-0000-331.90-02	$73,018		
	130-0000-331.90-02	$83,980		
	130-0000-331.90-02	$4,224		
	130-0000-331.90-02	$50,000		

FY 2024 BUDGET TRACKING WORKSHEET
REVENUE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
12/15/2023	130-0000-331.90-02	$4,572	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071
	130-0000-331.90-02	$17,896	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
	130-0000-331.90-02	$634,500		
	130-0000-331.90-02	$70,637		
	130-0000-331.90-02	$47,588		
	130-0000-331.90-02	$38,376		
2	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$1,563,134**
2	**Total Budget Amendments/Transfers**		**AMERICAN RESCUE PLAN FUND**	**$1,563,134**
10/27/2023	303-0000-389.99-50	$199,145	FISKE/ BROADMOOR GRANT AMENDMENT RES #: 23-128	350
	303-0000-389.99-50	$226,878		
	303-0000-331.90-01	$4,103,261		
1	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$4,529,284**
1	**Total Budget Amendments/Transfers**		**FISKE BV CMPLT STRTSCAPE**	**$4,529,284**
12/18/2023	304-0000-337.30-21	$84,000	DOCKING & BREAKWTR GRANT RESOLUTION #: 23-141	1091
	304-0000-381.91-10	$84,000		
1	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$168,000**
1	**Total Budget Amendments/Transfers**		**T DOCKS / BREAKWATER**	**$168,000**
10/27/2023	421-0000-381.91-24	$199,904	FISKE/ BROADMOOR GRANT IFT RESOLUTION #: 23-128	351
	421-0000-389.99-50	($199,904)		
11/17/2023	421-0000-389.99-50	$114,908	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
	421-0000-389.99-50	$149,396		
12/15/2023	421-0000-389.99-50	$7,571,410	BUDGET ROLL: SEE TRACKER RESOLUTION #:	1071

FY 2024 BUDGET TRACKING WORKSHEET
REVENUE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
12/15/2023			23-143	
	421-0000-389.99-50	$1,987,399	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
3	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$9,823,113**
3	**Total Budget Amendments/Transfers**		**WATER/SEWER FUND**	**$9,823,113**
10/27/2023	423-0000-389.99-50	$369,334	FISKE/ BROADMOOR GRANT AMENDMENT RES #: 23-128	350
	423-0000-389.99-50	$347,957		
12/15/2023	423-0000-389.99-50	$79,978	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071
	423-0000-334.36-35	$120,000		
	423-0000-334.36-36	$768,000	BUDGT ROLL: FISKE/ PND RESOLUTION #: 23-143	1071
	423-0000-389.99-50	$157,013	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
2	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$1,842,282**
2	**Total Budget Amendments/Transfers**		**STORMWATER UTILITY**	**$1,842,282**
10/27/2023	424-0000-389.99-50	$998,420	FISKE/ BROADMOOR GRANT AMENDMENT RES #: 23-128	350
	424-0000-389.99-50	$46,469		
	424-0000-389.99-50	$199,904	FISKE/ BROADMOOR GRANT IFT RESOLUTION #: 23-128	351
11/17/2023	424-0000-381.91-21	$1,182	MANHOLE LINING	670
12/15/2023	424-0000-331.35-01	$56,303	BUDGET ROLL: SEE TRACKER RESOLUTION #: 23-143	1071
	424-0000-389.99-50	$18,768		
	424-0000-389.99-50	$18,089,618		
	424-0000-389.99-50	$5,514,531	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
01/25/2024	424-0000-389.99-50	$3,382,443	ADD. IRP IPS & TPS FNDING RESOLUTION #: 24-004	1665

FY 2024 BUDGET TRACKING WORKSHEET
REVENUE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number	
4	**Total Budget Amendments/Transfers**		**Division 0000 Total**	**$28,307,638**	
4	**Total Budget Amendments/Transfers**		**RENEWAL & REPLACE FUND**	**$28,307,638**	

11 Transfers & AmendmentsBetween Oct 1, 2023 and Jan 31, 2024

FY 2,024 Total Transfer & Amendments $61,269,123

NOTE: Group #s represent a complete transaction that will net to zero. Add all expenses for each group number, then subtract the revenues related to the same group number and your total will equal zero

Report: Revenue Budget Tracking Worksheet
Run by: David J. Radford

Date: 02/22/2024

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
1100 - CITY MANAGER'S OFFICE					
1100 - CITY MANAGER'S OFFICE	01/23/2024	001-1100-512.11-00	($61,260)	GATEWAY/ RVI DECEMBER CLEANUP	1620
1	**Total Budget Amendments/Transfers**		**Division 1100 Total**	**($61,260)**	
1104 - PLANNING					
1104 - PLANNING	11/17/2023	001-1104-515.42-00	$3,000	VERIZON BALANCE October Cleanup	667
		001-1104-515.51-00	$800		
		001-1104-515.41-00	$1,200		
		001-1104-515.34-00	($5,000)		
	12/15/2023	001-1104-515.34-00	$56,914	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
	01/23/2024	001-1104-515.34-00	$61,260	GATEWAY/ RVI DECEMBER CLEANUP	1620
3	**Total Budget Amendments/Transfers**		**Division 1104 Total**	**$118,174**	
1203 - INFORMATION TECHNOLOGY					
1203 - INFORMATION TECHNOLOGY	10/13/2023	001-1203-516.44-00	($51,696)	US BANK SISSINE COPIER GASB87 COMPLIANCE	163
		001-1203-517.71-30	$51,278		
		001-1203-517.72-30	$418		
	11/17/2023	001-1203-516.41-00	$4,000	INTERNEET FEES AND TAXES October Cleanup	667
		001-1203-516.64-15	($4,000)	INTERNET FEES AND TAXES OCTOBER CLEANUP	667
	12/15/2023	001-1203-516.56-15	$2,744	PO ROLL: SEE TRACKER RESOLUTION #:	1065

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
1203 - INFORMATION TECHNOLOGY	12/15/2023	001-1203-516.46-00	$2,867	23-142	1065
	12/19/2023	001-1203-516.56-15	$13,200	BUDGT ROLL: SOCRATA RESOLUTION #: 23-143	1115
4	**Total Budget Amendments/Transfers**		**Division 1203 Total**	**$18,811**	
1600 - GENERAL OPERATIONS					
1600 - GENERAL OPERATIONS	11/17/2023	001-1600-513.31-00	$5,000	FD MENTAL HEALTH SVCS. OCTOBER CLEANUP	667
		001-1600-513.31-00	$15,000	GEHRING RISK CONSULTING October Cleanup	667
		001-1600-513.45-00	($15,000)		
		001-1600-513.39-00	($1,500)	WEDLOW SIGN ON BONUS OCTOBER CLEANUP	667
	12/15/2023	001-1600-513.56-15	$679,000	BUDGT ROLL: AFBP21 ERP RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$52,500	BUDGT ROLL: AFBP21 SUST. RESOLUTION #: 23-143	1071
		001-1600-513.56-15	$1,457,967	BUDGT ROLL: AFBP22 ERP RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$400,000	BUDGT ROLL: AFFD. HOUSING RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$128,223	BUDGT ROLL: D.S. PAVING RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$480,000	BUDGT ROLL: ECON. INCENT. RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$634,500	BUDGT ROLL: FD PUMPER TRK RESOLUTION #: 23-143	1071

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
1600 - GENERAL OPERATIONS	12/15/2023	001-1600-513.39-00	$209,249	BUDGT ROLL: HS TRAINEES RESOLUTION #: 23-143	1071
		001-1600-513.55-02	$7,363	BUDGT ROLL: HS TRNEE RECR RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$240,000	BUDGT ROLL: MUSEUM CONT. RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$241,000	BUDGT ROLL: P&F CADETS RESOLUTION #: 23-143	1071
		001-1600-513.39-00	$6,071	BUDGT ROLL: PARK IMPROV. RESOLUTION #: 23-143	1071
		001-1600-513.31-00	$67,103	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-1600-513.55-02	$7,045		
		001-1600-513.34-00	$13,028		
		001-1600-513.55-01	$14,182		
	01/16/2024	001-1600-513.39-00	$112,400	FLORIDA CITY GAS PIPELINE RESOLUTION #: 24-008	1503
		001-1600-513.39-00	($2,300)	915 FL AVE APPRAISAL RESOLUTION #: 23-794	1505
3	**Total Budget Amendments/Transfers**		**Division 1600 Total**	**$4,750,831**	
1603 - EMERGENCY MANAGEMENT					
1603 - EMERGENCY MANAGEMENT	11/17/2023	001-1603-525.52-00	($5,000)	FD MENTAL HEALTH SVCS. OCTOBER CLEANUP	667
1	**Total Budget Amendments/Transfers**		**Division 1603 Total**	**($5,000)**	

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
1906 - COMMUNICATION/GRANTS					
1906 - COMMUNICATION/ GRANTS	11/17/2023	001-1906-513.48-00	($4,248)	MONSIDO SUBSCRIPTION ADA October Cleanup	667
		001-1906-513.56-15	$4,248		
	12/15/2023	001-1906-513.56-15	$5,000	BUDGT ROLL: ARCHIVE SCIAL RESOLUTION #: 23-143	1071
2	**Total Budget Amendments/Transfers**		**Division 1906 Total**	**$5,000**	
1990 - LEISURE SERVICES					
1990 - LEISURE SERVICES	11/17/2023	001-1990-574.52-00	$1,000	DESK & DESK EQUIP. October Cleanup	667
		001-1990-574.49-00	($1,000)		
1	**Total Budget Amendments/Transfers**		**Division 1990 Total**	**$0**	
2100 - POLICE ADMIN/OPERATIONS					
2100 - POLICE ADMIN/OPERATIONS	10/12/2023	001-2100-521.52-37	$15,572	ACCEPT JAG GRANT FUNDS RESOLUTION #: 23-115	144
		001-2100-521.14-00	$5,000	RECEIVE HVE GRANT FUNDS RESOLUTION #: 23-114	143
	10/27/2023	001-2100-521.52-00	($12,940)	23 BULLET PROOF VST GRANT RESOLUTION #: 23-127	349
		001-2100-521.52-38	$25,880		
	11/17/2023	001-2100-521.54-00	($3,180)	DMS SOFTWARE FOR GASB96 October Cleanup	667
		001-2100-521.56-15	$10,183		
		001-2100-521.46-00	($1,996)	IDEMIA SOFTWR FOR GASB96 OCTOBER CLEANUP	667
		001-2100-521.56-15	$1,996		
		001-2100-521.15-00	$1,500	WEDLOW SIGN ON BONUS OCTOBER	667

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
2100 - POLICE ADMIN/OPERATIONS	11/17/2023			CLEANUP	
	12/15/2023	001-2100-521.15-00	$20,000	BUDGT ROLL: OFF. SIGN ON RESOLUTION #: 23-143	1071
		001-2100-521.12-00	$32,000	BUDGT ROLL: PD HS TRAINEE RESOLUTION #: 23-143	1071
		001-2100-521.46-03	$6,914	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-2100-521.52-00	$430		
		001-2100-521.64-00	$182,179		
		001-2100-521.52-26	$3,920		
		001-2100-521.52-23	$3,066		
	12/19/2023	001-2100-521.56-15	($13,200)	BUDGT ROLL: SOCRATA RESOLUTION #: 23-143	1115
5	**Total Budget Amendments/Transfers**		**Division 2100 Total**	**$277,324**	
2101 - POLICE COMMUNICATIONS					
2101 - POLICE COMMUNICATIONS	11/17/2023	001-2101-521.54-00	($7,003)	DMS SOFTWARE FOR GASB96 October Cleanup	667
	12/15/2023	001-2101-521.15-00	$5,000	BUDGT ROLL: DIS. SIGN ON RESOLUTION #: 23-143	1071
2	**Total Budget Amendments/Transfers**		**Division 2101 Total**	**($2,003)**	
2132 - CODE ENFORCEMENT					
2132 - CODE ENFORCEMENT	12/18/2023	001-2132-524.12-12	$1,730	NOV CLEANUP: SEE TRACKER EMPLOYEE ACCRUALS	1099
		001-2132-524.12-00	($1,730)		

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
1	**Total Budget Amendments/Transfers**		**Division 2132 Total**	**$0**	
2200 - FIRE ADMINISTRATION					
2200 - FIRE ADMINISTRATION	12/15/2023	001-2200-522.52-02	$14	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
1	**Total Budget Amendments/Transfers**		**Division 2200 Total**	**$14**	
2201 - FIRE OPERATIONS					
2201 - FIRE OPERATIONS	11/17/2023	001-2201-522.52-05	($1,584)	EMS DRUG VND MACHINE OCTOBER CLEANUP	667
		001-2201-522.56-15	$1,584		
	11/30/2023	001-2201-522.64-00	$652,875	SELL LADDER BUY PMPER TRK RESOLUTION #: 23-139	823
	12/15/2023	001-2201-522.12-00	$35,668	BUDGT ROLL: FIRE HS TRNEE RESOLUTION #: 23-143	1071
		001-2201-522.64-00	$850,000	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-2201-522.52-02	$7,463		
		001-2201-522.52-00	$11,970		
		001-2201-522.46-00	$107		
	12/18/2023	001-2201-522.34-00	$19,200	NOV CLEANUP: SEE TRACKER STRATEGIC PLANNING SVCS	1099
		001-2201-522.55-00	($19,200)		
		001-2201-522.46-00	$9,072	NOV CLEANUP: SEE TRACKER UNBUDGETED BUNKER GEAR	1099
		001-2201-522.55-00	($9,072)		
	01/23/2024	001-2201-522.56-15	($690)	KRONOS IVR: FD OT PAGING DECEMBER CLEANUP	1620
		001-2201-522.41-00	$690		

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
5	**Total Budget Amendments/Transfers**		**Division 2201 Total**	**$1,558,083**	
3200 - ADMINISTRATION					
3200 - ADMINISTRATION	12/15/2023	001-3200-515.62-00	$750,000	BUDGT ROLL: BLAKE SUBDIV. RESOLUTION #: 23-143	1071
		001-3200-515.61-00	$241,379	BUDGT ROLL: C VIL. PRKING RESOLUTION #: 23-143	1071
		001-3200-515.56-15	$12,292	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-3200-515.31-16	$4,204		
		001-3200-515.31-15	$17,700		
	01/16/2024	001-3200-515.34-00	$2,300	915 FL AVE APPRAISAL RESOLUTION #: 23-794	1505
2	**Total Budget Amendments/Transfers**		**Division 3200 Total**	**$1,027,875**	
3500 - ADMINISTRATION					
3500 - ADMINISTRATION	12/18/2023	001-3500-519.56-15	($10,000)	PW WORK MGMT. PROGRAM RESOLUTION #: 23-145	1093
1	**Total Budget Amendments/Transfers**		**Division 3500 Total**	**($10,000)**	
3510 - STREET MANAGEMENT					
3510 - STREET MANAGEMENT	10/27/2023	001-3510-541.63-00	$450,000	FY 24 PAVING BUDGET RESOLUTION #: 23-126	348
	11/17/2023	001-3510-541.46-00	($2,850)	FPL PO, BUDGETED TOO LOW OCTOBER CLEANUP	667
		001-3510-541.43-00	$2,850		

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3510 - STREET MANAGEMENT	11/17/2023	001-3510-541.46-00	$0	SHORTFALL CURB & GUTTER OCTOBER CLEANUP	667
	12/15/2023	001-3510-541.63-00	$3,985	BUDGT ROLL: AURORA DITCH RESOLUTION #: 23-143	1071
		001-3510-541.63-00	$46,296	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-3510-541.34-00	$3,900		
		001-3510-541.31-00	$2,526		
		001-3510-541.46-00	$58,701		
3	**Total Budget Amendments/Transfers**		**Division 3510 Total**	**$565,408**	
3520 - PARKS & BEAUTIFICATION					
3520 - PARKS & BEAUTIFICATION	12/15/2023	001-3520-572.46-00	$18,000	BUDGT ROLL: CEMTRY HEADST RESOLUTION #: 23-143	1071
1	**Total Budget Amendments/Transfers**		**Division 3520 Total**	**$18,000**	
3540 - PUBLIC WORKS- FLEET MAINT					
3540 - PUBLIC WORKS-FLEET MAINT	11/17/2023	001-3540-519.64-00	$3,951	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
	12/15/2023	001-3540-519.56-15	$13,760	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-3540-519.64-00	$14,614		
		001-3540-519.55-00	$6,528		
2	**Total Budget Amendments/Transfers**		**Division 3540 Total**	**$38,853**	
3560 - FACILITY MANAGEMENT					

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3560 - FACILITY MANAGEMENT	11/17/2023	001-3560-519.64-00	($3,951)	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
	12/15/2023	001-3560-519.56-15	$10,000	BUDGT ROLL: CMAS & INV RESOLUTION #: 23-143	1071
		001-3560-519.64-00	$23,428	BUDGT ROLL: FY23 CAP. PUR RESOLUTION #: 23-143	1071
		001-3560-519.46-03	$6,381	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-3560-519.49-00	$225		
		001-3560-519.64-00	$136,186		
		001-3560-519.62-00	$74,143		
		001-3560-519.46-00	$15,365		
	12/18/2023	001-3560-519.56-15	$10,000	PW WORK MGMT. PROGRAM RESOLUTION #: 23-145	1093
	01/25/2024	001-3560-519.34-00	($25,000)	PLAYHOUSE FIRE ALARM RESOLUTION #: 24-006	1666
		001-3560-519.64-00	$25,000		
4	**Total Budget Amendments/Transfers**		**Division 3560 Total**	**$271,777**	
3580 - CAPITAL PROJECTS MNGMT					
3580 - CAPITAL PROJECTS MNGMT	10/12/2023	001-3580-519.63-07	$1,263,151	PROVOST PARK BUDGET FY124 RESOLUTION #: 23-116	145
		001-3580-519.63-00	$697,853		
		001-3580-519.64-00	$8,000		
	10/27/2023	001-3580-519.63-07	$321,797	PROVOST PARK LIGHTS RESOLUTION #: 23-118	345
		001-3580-519.63-00	$204,009	STRADLEY PARK BUDGET RESOLUTION	347

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3580 - CAPITAL PROJECTS MNGMT	10/27/2023	001-3580-519.63-07	$488,376	#: 23-121	347
	11/17/2023	001-3580-519.63-00	$0	STRADLEY PARK PROJECT SHORTFALL	668
		001-3580-519.63-07	$0		
	12/15/2023	001-3580-519.63-07	$85,000	BUDGT ROLL: J.R. PRK IMP. RESOLUTION #: 23-143	1071
		001-3580-519.64-00	$529,141		
		001-3580-519.46-00	$61,550	BUDGT ROLL: PARK IMPROV. RESOLUTION #: 23-143	1071
		001-3580-519.64-00	$47,349	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		001-3580-519.63-00	$18,793		
4	**Total Budget Amendments/Transfers**		**Division 3580 Total**	**$3,725,019**	
11	**Total Budget Amendments/Transfers**		**GENERAL FUND**	**$12,296,906**	
3240 - HOUSING GRANTS					
3240 - HOUSING GRANTS	12/15/2023	104-3240-554.83-23	$151,680	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
1	**Total Budget Amendments/Transfers**		**Division 3240 Total**	**$151,680**	
1	**Total Budget Amendments/Transfers**		**BREVARD COUNTY HOME**	**$151,680**	
3240 - HOUSING GRANTS					
3240 - HOUSING GRANTS	10/12/2023	105-3240-554.83-00	$14,691	RECEIVE SHIP FUNDS RESOLUTION #: 23-112	142
	11/17/2023	105-3240-554.41-00	$800	SHIP TITLE AND CELL PHONE OCTOBER	667

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3240 - HOUSING GRANTS	11/17/2023	105-3240-554.39-00	($1,800)	CLEANUP	667
		105-3240-554.49-00	$1,000		
2	**Total Budget Amendments/Transfers**		**Division 3240 Total**	**$14,691**	
2	**Total Budget Amendments/Transfers**		**SHIP/COCOA HOUSING TRUST**	**$14,691**	
3200 - ADMINISTRATION					
3200 - ADMINISTRATION	12/15/2023	107-3200-524.34-00	$12,094	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
	12/18/2023	107-3200-524.56-15	$3,000	BLD 2 CITIZENSERVE RPRTS RESOLUTION #: 23-144	1098
2	**Total Budget Amendments/Transfers**		**Division 3200 Total**	**$15,094**	
2	**Total Budget Amendments/Transfers**		**BUILDING PERMITS**	**$15,094**	
3230 - CRA ADMIN/OPERATIONS					
3230 - CRA ADMIN/OPERATIONS	10/13/2023	110-3230-559.44-00	($62,179)	COCOA VILLAGE POST OFFICE LEASE GASB87 COMPLIANCE	162
		110-3230-517.72-31	$2,124		
		110-3230-517.71-31	$60,055		
	12/07/2023	110-3230-559.61-00	$86,000	Buy 203 Orange St. Resolution #: CCRA23-752	958
		110-3230-581.91-34	$84,000	Docking & Breakwtr Match RESOLUTION #: CCRA 23-749	959
	12/15/2023	110-3230-559.64-00	$31,608	BUDGT ROLL: CAMERAS RESOLUTION #: 23-143	1071

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3230 - CRA ADMIN/OPERATIONS	12/15/2023	110-3230-559.63-00	$750,000	BUDGT ROLL: DWNTWN PRKIN RESOLUTION #: 23-143	1071
		110-3230-559.63-00	$1,499,756	BUDGT ROLL: LEE WENNER RESOLUTION #: 23-143	1071
		110-3230-559.63-00	$50,000	BUDGT ROLL: VILLAGE SIGNS RESOLUTION #: 23-143	1071
		110-3230-559.63-00	$15,748	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		110-3230-559.83-00	$10,000		
	01/10/2024	110-3230-559.63-00	($106,329)	REDUCED TIF REVENUE RESOLUTION #: CCRA 23-797	1448
4	**Total Budget Amendments/Transfers**		**Division 3230 Total**	**$2,420,783**	
4	**Total Budget Amendments/Transfers**		**CRA COCOA RDA**	**$2,420,783**	
3230 - CRA ADMIN/OPERATIONS					
3230 - CRA ADMIN/OPERATIONS	12/15/2023	111-3230-559.64-00	$50,000	BUDGT ROLL: BUS STOP SHEL RESOLUTION #: 23-143	1071
		111-3230-559.63-00	$50,000	BUDGT ROLL: PRVST/ GIL RE RESOLUTION #: 23-143	1071
		111-3230-559.63-00	$50,000	BUDGT ROLL: STAMPED PAVEM RESOLUTION #: 23-143	1071
		111-3230-559.56-15	$12,292	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		111-3230-559.83-00	$3,000		
	01/23/2024	111-3230-559.63-00	$0	BUS STOP CONCRETE PAD DECEMBER CLEANUP	1620

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3230 - CRA ADMIN/OPERATIONS	01/31/2024	111-3230-559.23-00	$75	D.S. PAYROLL SHORE UP RESOLUTION # DSCRA-24-038	1759
		111-3230-559.12-00	($150)		
		111-3230-559.23-09	$75		
		111-3230-559.64-00	($21,226)	MOVING BUS STOP SHELTER FUNDS TO BUS STOP PAD	1761
		111-3230-559.63-00	$21,226		
		111-3230-559.64-00	($28,774)	REDUCED TIF REVENUE RESOLUTION # DSCRA-24-003	1760
3	**Total Budget Amendments/Transfers**		**Division 3230 Total**	**$136,518**	
3	**Total Budget Amendments/Transfers**		**CRA DIAMOND SQUARE 626**	**$136,518**	
1203 - INFORMATION TECHNOLOGY					
1203 - INFORMATION TECHNOLOGY	12/15/2023	130-1203-516.63-00	$11,818	BUDGT ROLL: FIBR OPT. RNG RESOLUTION #: 23-143	1071
		130-1203-516.63-00	$109,013	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
1	**Total Budget Amendments/Transfers**		**Division 1203 Total**	**$120,831**	
1600 - GENERAL OPERATIONS					
1600 - GENERAL OPERATIONS	12/15/2023	130-1600-513.56-15	$18,590	BUDGT ROLL: DIG. RECORDS RESOLUTION #: 23-143	1071
		130-1600-513.56-15	$4,572	BUDGT ROLL: LAPTOPS RESOLUTION #: 23-143	1071
		130-1600-513.56-15	$17,896	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
1	**Total Budget Amendments/Transfers**		**Division 1600 Total**	**$41,058**	
2100 - POLICE ADMIN/OPERATIONS					
2100 - POLICE ADMIN/OPERATIONS	12/15/2023	130-2100-521.64-00	$4,224	BUDGT ROLL: FY22 PD VEH. RESOLUTION #: 23-143	1071
		130-2100-521.64-00	$128,004	BUDGT ROLL: FY23 PD VEH. RESOLUTION #: 23-143	1071
1	**Total Budget Amendments/Transfers**		**Division 2100 Total**	**$132,228**	
2201 - FIRE OPERATIONS					
2201 - FIRE OPERATIONS	11/17/2023	130-2201-522.64-00	$62,705	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
	12/15/2023	130-2201-522.64-00	$62,705	BUDGT ROLL: FD BRUSH TRK RESOLUTION #: 23-143	1071
		130-2201-522.64-00	$198,596	BUDGT ROLL: FD TRAIN TRAI RESOLUTION #: 23-143	1071
		130-2201-522.64-00	$682,088	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
2	**Total Budget Amendments/Transfers**		**Division 2201 Total**	**$1,006,094**	
3230 - CRA ADMIN/OPERATIONS					
3230 - CRA ADMIN/OPERATIONS	12/15/2023	130-3230-559.83-03	$50,000	BUDGT ROLL: CAMP SCHOLAR. RESOLUTION #: 23-143	1071
1	**Total Budget Amendments/Transfers**		**Division 3230 Total**	**$50,000**	

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3510 - STREET MANAGEMENT					
3510 - STREET MANAGEMENT	12/15/2023	130-3510-541.64-00	$73,018	BUDGT ROLL: PW WORK TRUCK RESOLUTION #: 23-143	1071
1	**Total Budget Amendments/Transfers**		**Division 3510 Total**	**$73,018**	
3520 - PARKS & BEAUTIFICATION					
3520 - PARKS & BEAUTIFICATION	12/15/2023	130-3520-572.64-00	$55,925	BUDGT ROLL: PW WORK VEH. RESOLUTION #: 23-143	1071
1	**Total Budget Amendments/Transfers**		**Division 3520 Total**	**$55,925**	
3560 - FACILITY MANAGEMENT					
3560 - FACILITY MANAGEMENT	12/15/2023	130-3560-519.64-00	$83,980	BUDGT ROLL: PD COND. UNIT RESOLUTION #: 23-143	1071
1	**Total Budget Amendments/Transfers**		**Division 3560 Total**	**$83,980**	
2	**Total Budget Amendments/Transfers**		**AMERICAN RESCUE PLAN FUND**	**$1,563,134**	
3570 - STORMWATER UTILITY					
3570 - STORMWATER UTILITY	10/27/2023	303-3570-538.63-73	$4,302,406	FISKE/ BROADMOOR GRANT AMENDMENT RES #: 23-128	350
		303-3570-538.63-08	$226,878		
1	**Total Budget Amendments/Transfers**		**Division 3570 Total**	**$4,529,284**	
1	**Total Budget Amendments/Transfers**		**FISKE BV CMPLT STRTSCAPE**	**$4,529,284**	

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3580 - CAPITAL PROJECTS MNGMT					
3580 - CAPITAL PROJECTS MNGMT	12/18/2023	304-3580-572.63-00	$168,000	DOCKING & BREAKWTR GRANT RESOLUTION #: 23-141	1091
1	**Total Budget Amendments/Transfers**		**Division 3580 Total**	**$168,000**	
1	**Total Budget Amendments/Transfers**		**T DOCKS / BREAKWATER**	**$168,000**	
1515 - UTILITY SUPPORT SERVICES					
1515 - UTILITY SUPPORT SERVICES	11/17/2023	421-1515-536.64-00	$114,908	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
	12/15/2023	421-1515-536.64-00	$90,503	BUDGT ROLL: FY23 VEH. RESOLUTION #: 23-143	1071
		421-1515-536.64-00	$24,182	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
2	**Total Budget Amendments/Transfers**		**Division 1515 Total**	**$229,593**	
4010 - WATER ADMINISTRATION					
4010 - WATER ADMINISTRATION	11/17/2023	421-4010-536.31-00	$45,000	GEHRING RISK CONSULTING October Cleanup	667
		421-4010-536.45-00	($45,000)		
		421-4010-581.91-24	$1,182	MANHOLE LINING	670
	12/15/2023	421-4010-536.56-15	$3,000,000	BUDGT ROLL: W/S ERP RESOLUTION #: 23-143	1071
		421-4010-536.46-03	$4,472	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		421-4010-536.31-01	$110,139		
		421-4010-536.31-00	$26,718		

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
2	**Total Budget Amendments/Transfers**		**Division 4010 Total**	**$3,142,511**	
4020 - DYAL PLANT					
4020 - DYAL PLANT	10/13/2023	421-4020-536.44-21	($433,680)	DYAL GENERATOR GASB87 COMPLIANCE	161
	11/17/2023	421-4020-536.34-00	$5,000	DYAL ELEV. CONTRACT SVCS October Cleanup	667
		421-4020-536.46-00	($5,000)		
	12/15/2023	421-4020-536.46-00	$34,922	BUDGT ROLL: ACTUATOR REP. RESOLUTION #: 23-143	1071
		421-4020-536.64-00	$98,186	BUDGT ROLL: DUST COLL. RESOLUTION #: 23-143	1071
		421-4020-536.46-02	$50,000	BUDGT ROLL: TC ROOF REP. RESOLUTION #: 23-143	1071
		421-4020-536.46-02	$95,000	BUDGT ROLL: WEWA ROOF REP RESOLUTION #: 23-143	1071
		421-4020-536.63-00	$33,005	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		421-4020-536.31-03	$10,905		
		421-4020-536.34-00	$17,253		
		421-4020-536.46-00	$78,173		
		421-4020-536.55-00	$6,016		
		421-4020-536.64-15	$350,834		
		421-4020-536.41-00	$358		
		421-4020-536.52-00	$1,191		
	12/18/2023	421-4020-536.64-00	$28,754	NOV CLEANUP: SEE TRACKER SODA ASH	1099

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
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Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
4020 - DYAL PLANT	12/18/2023	421-4020-536.46-00	($28,754)	SYSTEM REPLACE	1099
	01/22/2024	421-4020-536.64-00	$0	PUMP ROOM AC REPLACE MCC WS23DC TO BE REPLENISHED	1604
	01/25/2024	421-4020-536.46-00	($141,853)	DYAL HVAC REPLACEMENT RESOLUTION #: 24-009	1667
		421-4020-536.64-00	$141,853		
6	**Total Budget Amendments/Transfers**		**Division 4020 Total**	**$342,163**	
4025 - WATER FIELD OPERATIONS					
4025 - WATER FIELD OPERATIONS	12/15/2023	421-4025-536.64-00	$70,347	BUDGT ROLL: FY22 CAP. PUR RESOLUTION #: 23-143	1071
		421-4025-536.64-00	$40,065	BUDGT ROLL: FY23 CAP PUR RESOLUTION #: 23-143	1071
		421-4025-536.64-00	$18,897	BUDGT ROLL: FY23 PD VEH. RESOLUTION #: 23-143	1071
		421-4025-536.46-00	$120,146	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		421-4025-536.46-02	$10,048		
		421-4025-536.64-00	$106,240		
1	**Total Budget Amendments/Transfers**		**Division 4025 Total**	**$365,743**	
4055 - ENGINEERING					
4055 - ENGINEERING	12/15/2023	421-4055-536.63-00	$3,026,223	BUDGT ROLL: COCOA GROVE RESOLUTION #: 23-143	1071
		421-4055-536.63-00	$59,647	BUDGT ROLL: DYAL OZ IMPR. RESOLUTION #: 23-143	1071
		421-4055-536.63-00	$210,573	BUDGT ROLL: IND. PUMP ST.	1071

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
4055 - ENGINEERING	12/15/2023			RESOLUTION #: 23-143	
		421-4055-536.63-00	$593,603	BUDGT ROLL: PINEDA RESOLUTION #: 23-143	1071
		421-4055-536.31-03	$36,526	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		421-4055-536.63-00	$420,316		
1	**Total Budget Amendments/Transfers**		**Division 4055 Total**	**$4,346,888**	
4120 - SELLERS PLANT					
4120 - SELLERS PLANT	10/12/2023	421-4120-536.31-03	$26,000	SCADA MAINT. INCREASE RESOLUTION #: 23-113	141
		421-4120-536.46-00	($26,000)		
	11/17/2023	421-4120-536.64-00	$149,396	PURCHASE FLEET SVC TRUCK WITH BUCKET TRUCK FUNDS	669
		421-4120-536.52-00	($2,604)	4 EMP. CELLS & 1 AIR CARD October Cleanup	667
		421-4120-536.41-00	$2,604		
	12/15/2023	421-4120-536.64-00	$5,834	BUDGT ROLL: ANALYTIC BAL RESOLUTION #: 23-143	1071
		421-4120-536.64-00	$149,396	BUDGT ROLL: FY23 VEH. RESOLUTION #: 23-143	1071
		421-4120-536.46-00	$17,749	BUDGT ROLL: PAINT SELLERS RESOLUTION #: 23-143	1071
		421-4120-536.64-00	$10,465	BUDGT ROLL: REUSE PUMP RESOLUTION #: 23-143	1071
		421-4120-536.46-02	$11,397	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		421-4120-536.64-00	$31,829		

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
4120 - SELLERS PLANT	12/15/2023	421-4120-536.63-00	$45,243	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
3	**Total Budget Amendments/Transfers**		**Division 4120 Total**	**$421,309**	
4125 - SEWER FIELD OPERATIONS					
4125 - SEWER FIELD OPERATIONS	10/27/2023	421-4125-536.46-00	($33,570)	CAROLLO ENG. TASK # 24-03 RESOLUTION #: 23-119	346
		421-4125-536.31-03	$33,570		
	11/17/2023	421-4125-536.46-00	($1,182)	MANHOLE LINING	670
	12/15/2023	421-4125-536.31-03	$22,955	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		421-4125-536.64-00	$518,296		
		421-4125-536.46-00	$1,157		
3	**Total Budget Amendments/Transfers**		**Division 4125 Total**	**$541,226**	
4700 - DEBT SERVICE					
4700 - DEBT SERVICE	10/13/2023	421-4700-517.71-32	$339,510	DYAL GENERATOR GASB87 COMPLIANCE	161
		421-4700-517.72-32	$94,170		
1	**Total Budget Amendments/Transfers**		**Division 4700 Total**	**$433,680**	
8	**Total Budget Amendments/Transfers**		**WATER/SEWER FUND**	**$9,823,113**	
3570 - STORMWATER UTILITY					
3570 - STORMWATER UTILITY	10/27/2023	423-3570-538.63-73	$717,291	FISKE/ BROADMOOR GRANT AMENDMENT RES #: 23-128	350
	11/30/2023	423-3570-538.63-00	$52,733	ADD. EOR SERVICES F&B & BOND FOR	822

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
3570 - STORMWATER UTILITY	11/30/2023	423-3570-538.39-00	($52,733)	WETLND R #23-136	822
	12/15/2023	423-3570-538.63-00	$50,678	BUDGT ROLL: AURORA DITCH RESOLUTION #: 23-143	1071
		423-3570-538.63-36	$768,000	BUDGT ROLL: FISKE/ PND RESOLUTION #: 23-143	1071
		423-3570-538.63-00	$28,800	BUDGT ROLL: FLOATING WET. RESOLUTION #: 23-143	1071
		423-3570-538.63-00	$500	BUDGT ROLL: ROADWAY ELEV. RESOLUTION #: 23-143	1071
		423-3570-538.63-35	$120,000	BUDGT ROLL: US1/ FOREST A RESOLUTION #: 23-143	1071
		423-3570-538.34-00	$4,253	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		423-3570-538.63-00	$81,399		
		423-3570-538.31-00	$21,412		
		423-3570-538.64-00	$49,349		
		423-3570-538.46-00	$600		
3	**Total Budget Amendments/Transfers**		**Division 3570 Total**	**$1,842,282**	
3	**Total Budget Amendments/Transfers**		**STORMWATER UTILITY**	**$1,842,282**	
4010 - WATER ADMINISTRATION					
4010 - WATER ADMINISTRATION	10/27/2023	424-4010-581.91-21	$199,904	FISKE/ BROADMOOR GRANT IFT RESOLUTION #: 23-128	351
1	**Total Budget Amendments/Transfers**		**Division 4010 Total**	**$199,904**	

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
4020 - DYAL PLANT					
4020 - DYAL PLANT	12/15/2023	424-4020-536.63-00	$260,000	BUDGT ROLL: C-F POLY. TNK RESOLUTION #: 23-143	1071
		424-4020-536.63-00	$1,338,836	BUDGT ROLL: REACTOR CLAR. RESOLUTION #: 23-143	1071
		424-4020-536.64-00	$81,472	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
		424-4020-536.63-00	$751,522		
1	**Total Budget Amendments/Transfers**		**Division 4020 Total**	**$2,431,830**	
4055 - ENGINEERING					
4055 - ENGINEERING	10/27/2023	424-4055-536.63-73	$998,420	FISKE/ BROADMOOR GRANT AMENDMENT RES #: 23-128	350
		424-4055-536.63-08	$46,469		
	12/15/2023	424-4055-536.63-00	$85,000	BUDGT ROLL: BANNA RIV TNK RESOLUTION #: 23-143	1071
		424-4055-536.63-00	$2,102	BUDGT ROLL: DYAL CO2 BULK RESOLUTION #: 23-143	1071
		424-4055-536.63-00	$4,275,000	BUDGT ROLL: DYAL OZONE IM RESOLUTION #: 23-143	1071
		424-4055-536.63-00	$1,463,198	BUDGT ROLL: DYAL WELL 17 RESOLUTION #: 23-143	1071
		424-4055-536.63-00	$150,000	BUDGT ROLL: GRNDWT FLUME RESOLUTION #: 23-143	1071
		424-4055-536.63-00	$8,776,363	BUDGT ROLL: IRP RESOLUTION #: 23-143	1071
		424-4055-536.63-06	$75,071	BUDGT ROLL: LIFT STN. 1 RESOLUTION	1071

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
4055 - ENGINEERING	12/15/2023			#: 23-143	
		424-4055-536.63-00	$4,061,770	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
	01/25/2024	424-4055-536.63-00	$3,382,443	ADD. IRP IPS & TPS FNDING RESOLUTION #: 24-004	1665
3	**Total Budget Amendments/Transfers**		**Division 4055 Total**	**$23,315,836**	
4120 - SELLERS PLANT					
4120 - SELLERS PLANT	12/15/2023	424-4120-536.63-00	$1,000,000	BUDGT ROLL: AERATN BLOWER RESOLUTION #: 23-143	1071
		424-4120-536.63-00	$393,949	BUDGT ROLL: BNR RESOLUTION #: 23-143	1071
		424-4120-536.63-00	$45,170	BUDGT ROLL: HYDROPNEUMATC RESOLUTION #: 23-143	1071
		424-4120-536.64-15	$300,000	BUDGT ROLL: M&L CNTRL BRD RESOLUTION #: 23-143	1071
		424-4120-536.63-00	$619,767	PO ROLL: SEE TRACKER RESOLUTION #: 23-142	1065
1	**Total Budget Amendments/Transfers**		**Division 4120 Total**	**$2,358,886**	
4125 - SEWER FIELD OPERATIONS					
4125 - SEWER FIELD OPERATIONS	11/17/2023	424-4125-536.63-00	$1,182	MANHOLE LINING	670
1	**Total Budget Amendments/Transfers**		**Division 4125 Total**	**$1,182**	

FY 2024 EXPENSE BUDGET TRACKING WORKSHEET
EXPENSE TRANSFER/AMENDMENT DETAIL
AS OF 1/31/2024

Div Description	Transaction Date	Account Formatted	Transaction Amount	Resolution # / Description of Transfer or Amendment	Group Number
4	**Total Budget Amendments/Transfers**		**RENEWAL & REPLACE FUND**	**$28,307,638**	

15 Transfers & AmendmentsBetween Oct 1, 2023 and Jan 31, 2024

FY 2,024 Total Transfer & Amendments	$61,269,123

NOTE: Group #s represent a complete transaction that will net to zero. Add all expenses for each group number, then subtract the revenues related to the same group number and your total will equal zero

Report: Expense Budget Tracking Worksheet
Run by: David J. Radford

Date: 02/22/2024

Legislation Details (With Text)

File #:	24-065	**Version:**	1	**Name:**	
Type:	Informational Item			**Status:**	Agenda Ready
File created:	2/2/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	In accordance with the Financial Operations Manual (FOM) the City Manager shall submit to City Council in the form of an agenda item any approved change orders to construction contracts that the City Council has authorized the City Manager, by resolution, to approve in excess of the City Manager's spending authority. (Finance Director)				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Change Order Authorizations Vizualization.pdf Change Orders-CM Authorized January 2024.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 7, 2024
Agenda Date: February 27, 2024
Prepared By: Dave Radford, Senior Budget Analyst
Through: Rebecca Bowman, MBA, CGFO, CGFM, Finance Director; Stockton Whitten, City Manager
Requested Action:
In accordance with the Financial Operations Manual (FOM) the City Manager shall submit to City Council in the form of an agenda item any approved change orders to construction contracts that the City Council has authorized the City Manager, by resolution, to approve in excess of the City Manager's spending authority.

BACKGROUND:

The attached spreadsheets reference construction projects with a previously authorized "contingency" as of January 31st, 2024. The report provides the project number, project description, construction contract cost of project, contingency amount authorized, date of City Council approval, resolution number for authorization of contingency, requisition numbers, and expenditure by fiscal year.

The second line of each project in the third column under "Construction contract not to exceed $" references the contingency amount that the City Council or City Manager, if within his purchasing authority, has approved. The last line of each project provides the remaining balance as of the report date.

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

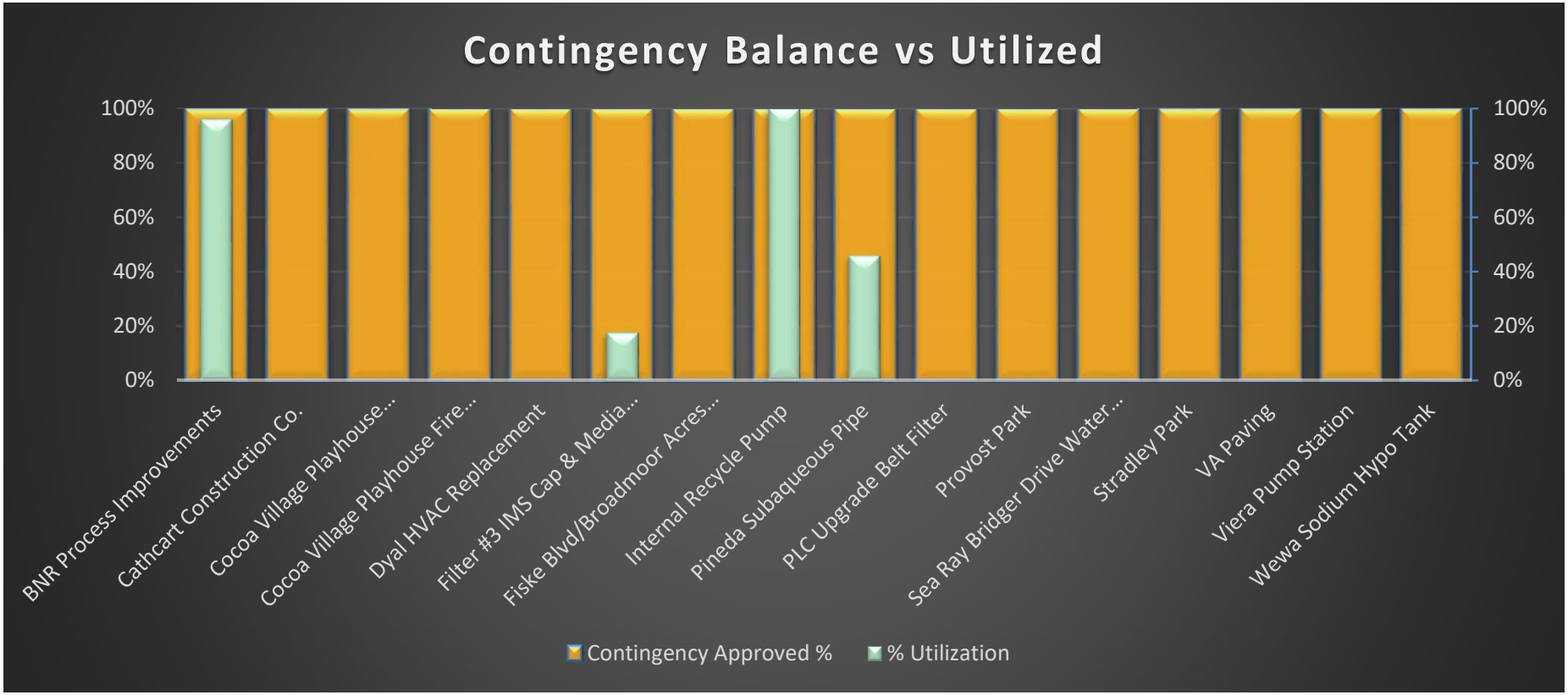
None

PREVIOUS ACTION:

None

RECOMMENDED MOTION:

Informational Item Only


Contingency Balance vs Utilized
100%
80%
60%
40%
20%
0%
BNR Process Improvements
Cathcart Construction Co.
Cocoa Village Playhouse...
Cocoa Village Playhouse Fire...
Dyal HVAC Replacement
Filter #3 IMS Cap & Media...
Fiske Blvd/Broadmoor Acres...
Internal Recycle Pump
Pineda Subaqueous Pipe
PLC Upgrade Belt Filter
Provost Park
Sea Ray Bridger Drive Water...
Stradley Park
VA Paving
Viera Pump Station
Wewa Sodium Hypo Tank
Contingency Approved %
% Utilization

FY 2024 Change Orders - CM authorized to execute

Applied to Contingency | as of: 1/31/2024

Project #	Project Description + Details	Construction contract not to exceed $	Labels	Resolution #	Requisition #	Requsition Amount	All Fiscal Years Cumulative	FY21 Cumulative Requisitions	FY22 Cumulative Requisitions	FY23 Cumulative Requisitions	FY24 Cumulative Requisitions	Cumulative Expenditures	FY2024 Expenditures	FY2023 Expenditures	FY2022 Expenditures
CA2402	**DYAL HVAC REPLACEMENT**														
Op. Rev.		117,818	Total approved	2023-064											
Project Manager:	Francis Palmieri	1,988	Contingency and other costs authorized												
Account #:	421-4020-536.64-00	115,830	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**Wharton-Smith Inc.**			FY2024	47679	54,650	54,650	-	-	-	54,650	$ -	$ -	$ -	$ -
PO #:	**81972**														
		1,988													
WS22IR	**Internal Recycle Pump**														
Op. Rev.		1,448,145	Total approved	2023-064											
Project Manager:	Francis Palmieri	81,970	Contingency and other costs authorized												
Account #:	421-4120-536.63-00	1,366,175	Exp authorized before contingency												
	424-4055-536.63-00														
	424-4120-536.63-00														
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**Wharton-Smith Inc.**			FY2024	47027	1,366,175	1,448,145	-	-	-	1,448,145	$ -	$ -	$ -	$ -
PO #:	**81414**				47027-1	**81,970**									
		-													
PWFBSP	**Stradley Park**														
Op. Rev.		681,637	Total approved	2023-121											
Project Manager:	Gary Palmer	60,000	Contingency and other costs authorized												
Account #:	001-3580-519.63-00	621,637	Exp authorized before contingency												
	001-3580-519.63-07														
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**VA Paving**			FY2024	47387	321,797	321,797	-	-	-	321,797	$ 177,667	$ 177,667	$ -	$ -
PO #:	**81729**														
		60,000													
PWFBPP	**Provost Park Improvements**														
Op. Rev.		1,969,004	Total approved	2023-116											
Project Manager:	Abigail Morgan	80,000	Contingency and other costs authorized												
Account #:	001-3580-519.63-00	1,889,004	Exp authorized before contingency												
	001-3580-519.63-07														
	001-3580-519.64-00														
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
				FY2024	47163	697,853	1,889,004	-	-	-	1,889,004	$ 471,723	$ 471,723	$ -	$ -
Vendor:					47163	49,977									
PO #:	**81560**				47163	1,133,174									
		80,000			47163	8,000									
AFBP22 & PW08SP	**Annual Street Paving**														
Op. Rev.		950,000	Total approved	2023-064											
Project Manager:	Abigail Morgan	26,796	Contingency and other costs authorized												
Account #:	001-3510-541.63-00	923,204	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**VA Paving**			FY2024	47376	443,982	923,204	-	-	-	923,204	$ -	$ -	$ -	$ -
PO #:	**81738**				47376-1	479,222									
		26,796													
PW23PE	**Cocoa Village Playhouse Elevator**														
Op. Rev.		74,143	Total approved	2023-025											
Project Manager:	Frank Marabito	7,060	Contingency and other costs authorized												
Account #:	001-3560-519.62-00	67,083	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**Sapphire Elevator**			FY2023	46176	67,083	67,083	-	-	67,083	-	$ -	$ -	$ -	$ -
PO #:	**80805**														
		7,060													

Project #	Project Description + Details	Construction contract not to exceed $	Labels	Resolution #	Requisition #	Requsition Amount	All Fiscal Years Cumulative	FY21 Cumulative Requisitions	FY22 Cumulative Requisitions	FY23 Cumulative Requisitions	FY24 Cumulative Requisitions	Cumulative Expenditures	FY2024 Expenditures	FY2023 Expenditures	FY2022 Expenditures
WS23DF	**Filter #3 IMS Cap & Media Replacement**														
Op. Rev.		697,679	Total approved	2023-020											
Project Manager:		42,413	Contingency and other costs authorized	2023-021											
Account #:	424-4020-536.63-00	655,266	Exp authorized before contingency	2023-059											
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**Elenis Contracting**			FY2023	46212	424,120	662,766	-	-	662,766	-	$ 318,688	$ 211,366	$ 107,322	$ -
PO #:	**80847**				46525	231,146									
		34,913			46736	**7,500**									
PW23PF	**Cocoa Village Playhouse Fire Alarm Panel**														
Op. Rev.		123,602	Total approved	2023-029											
Project Manager:	Frank Marabito	10,000	Contingency and other costs authorized												
Account #:	001-3560-519.64-00	113,602	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**Integrated Fire**			FY2023	46235	113,602	113,602	-	-	113,602	-	$ 102,573	$ 102,573	$ -	$ -
PO #:	**80892**				46235-1	**0**									
		9,999.55													
WS21VP	**Viera Pump Station**														
Op. Rev.		917,070	Total approved	2023-015											
Project Manager:		83,370	Contingency and other costs authorized												
Account #:	424-4055-536.63-00	833,700	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**L7 Construction**			FY2023	46161	833,700	833,700	-	-	833,700	-	$ 198,018	$ 158,118	$ 39,900	$ -
PO #:	**80814**														
		83,370													
WS21SC	**Sea Ray Bridger Drive Water Main Relocation**														
Op. Rev.		4,839,476	Total approved	2022-134											
Project Manager:	John Perrin	439,952	Contingency and other costs authorized												
Account #:	424-4055-536.63-00	4,399,524	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
	Atlantic Devlopment Cocoa			FY2023	45843	4,399,524	4,399,524	-	-	4,399,524	-	$ 2,796,969	$ 378,643	$ 2,418,326	$ -
	80537														
		439,952													
WS17FC	**PLC Upgrade Belt Filter**														
Op. Rev.		164,105	Total approved	22-084											
Project Manager:		21,405	Contingency and other costs authorized												
Account #:	421-4020-536.63-00	142,700	Exp authorized before contingency												
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**CC Control Corp**			FY2022	45427	142,700	142,700	-	-	142,700	-	$ 131,100	$ -	$ 131,100	$ -
PO #:	**80167**														
		21,405													
GR2108	**Fiske Blvd/Broadmoor Acres Drainage Improvement**														
Op. Rev.		289,132	Total approved	2022-025											
Project Manager:		26,285	Contingency and other costs authorized												
Account #:	303-3570-538.63-08	262,847	Exp authorized before contingency												
	424-4055-536.63-08						Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
	Tiera Inc.			FY2022-303	44454	197,135	262,847	-	262,847	-	-	$ -	$ -	$ -	$ -
	79493			FY2022-424	44454-1	65,712									
		26,285													

Project #	Project Description + Details	Construction contract not to exceed $	Labels	Resolution #	Requisition #	Requsition Amount	All Fiscal Years Cumulative	FY21 Cumulative Requisitions	FY22 Cumulative Requisitions	FY23 Cumulative Requisitions	FY24 Cumulative Requisitions	Cumulative Expenditures	FY2024 Expenditures	FY2023 Expenditures	FY2022 Expenditures
GR2108	**Fiske Blvd/Broadmoor Acres Drainage Improvement**														
Op. Rev.		6,018,117	Total approved	2022-025											
Project Manager:		547,102	Contingency and other costs authorized												
Account #:	303-3570-538.63-73	5,471,015	Exp authorized before contingency												
	423-3570-538.63-73						Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
	424-4055-536.63-73			FY2024	47365	5,471,015	5,471,015	-	-	-	5,471,015	$ -	$ -	$ -	$ -
	Cathcart Construction Co.														
	81782														
		547,102													
WS18MI	**Pineda Subaqueous Pipe**														
Op. Rev.		12,066,069	Total approved	21-112											
Project Manager:	City of Melbourne	1,096,915	Contingency and other costs authorized												
Account #:	426-4055-536.63-00	10,969,154	Exp authorized before contingency												
Account #:	421-4055-536.63-00						Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**City of Melbourne**			FY2021	WIRE	10,969,154	11,472,467	10,969,154	485,192	18,121	-	$ 11,651,223	$ 196,877	$ 485,192	$ 10,969,154
PO #:	**WIRE**			C.O. #1	WIRE-1	**399,159**									
				C.O. #2	WIRE-2	**86,033**									
				C.O. #3	WIRE-3	**(95,700)**									
				C.O. #4	WIRE-4	**43,589**									
				C.O. #5	WIRE-5	**6,950**									
				C.O. #6	WIRE-6	**14,539**									
				C.O. #7	WIRE-7	**69,457**									
				C.O. #8	WIRE-8	**158,042**									
				C.O. #9	WIRE-9	**(113,462)**									
				C.O. #10	WIRE-10	**71,186**									
				C.O. #11	WIRE-11	**(136,480)**									
		593,602													
WS1222	**BNR Process Improvements**														
Op. Rev.		2,497,935	Total approved	2022-018											
Project Manager:		989,934	Contingency and other costs authorized	2022-092											
Account #:	424-4120-536.63-00	1,508,001	Exp authorized before contingency	2023-054											
							Cumulative Req. Balances	FY 21	FY 22	FY 23	FY 24	Cumulative Expenditures	FY 24	FY 23	FY 22
Vendor:	**E&D Contracting Services Vendor #10461**			FY2022	44517	1,508,001	2,458,326	-	1,944,049	514,277	-	$ 2,201,468	$ 564,028	$ 1,129,530	$ 507,911
PO #:	**79480**			C.O. #1	45144	**436,048**									
				C.O. #2	45887	**30,015**									
				C.O. #3	46074	**5,376**									
		39,609		C.O. #4	46493	**478,886**									

Legislation Details (With Text)

File #:	24-108	**Version:**	1	**Name:**	
Type:	Informational Item			**Status:**	Agenda Ready
File created:	2/23/2024			**In control:**	City Council
On agenda:	2/27/2024			**Final action:**	
Title:	Bi-weekly Report from February 9 - February 22, 2024.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Council bi-weekly report.pdf				

Date	Ver.	Action By	Action	Result

CITY COUNCIL AGENDA ITEM

Memo Date: February 23, 2024
Agenda Date: February 27, 2024
Prepared By: Monica Arsenault, City Clerk
Through: Stockton Whitten, City Manager
Requested Action:
Bi-weekly Report from February 9 - February 22, 2024.

BACKGROUND:

N/A

STRATEGIC PLAN CONNECTION:

N/A

BUDGETARY IMPACT:

N/A

PREVIOUS ACTION:

N/A

RECOMMENDED MOTION:

N/A

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Office of the City Manager
65 Stone Street • Cocoa, FL 32922
PHONE: (321) 433-8660

To: Mayor and City Council Members

From: Stockton Whitten, City Manager

Date: February 9 – February 22, 2024

Subject: Council Update Report

This report is intended to serve as a departmental update to City Council. While not all inclusive, it should provide you with an idea of key activities departmental staff are involved in. If you have any questions on any of the items, please feel free to contact me.

Administrative Services

- Records request stats: 12 received/ 9 closed out - $0 collected in fees
- Employment opportunities link: https://www.governmentjobs.com/careers/cocoafl
- New employees
  - Joshua Arsis – Maintenance Worker I, Utilities/Dyal, February 20, 2024
  - Hartley Bennett – Customer Service Representative, Finance/Customer Service, February 20, 2024
  - Joshua Frary – UT Associate Engineer I, Utilities/Engineering, February 20, 2024
  - Kyle Friend – Utility Mechanic I, Utilities/Dyal, February 20, 2024
- Recent promotions
  - Monica Arsenault – City Clerk, Administrative Services/City Clerk's Office, February 5, 2024
- Key retirements
  - Richard Williams – Industrial Electrician II, Utilities/Sellers, February 29, 2024, 20 years

Communication and Economic Development

- Media Stories:

    - Cocoa Temporarily Switches to Free Chlorine Treatment for Enhanced Water Safety
    - Former Cocoa High Player Jawaan Taylor takes home Super Bowl ring
    - New Florida budget proposal moves to rescind $40M in cyber funding
    - Commissioner Steele seeks money to help pay for Brevard Brightline station
    - UpStart Cocoa provides opportunity, accepting applications for program
- New News Releases:
    - Annual Water System Maintenance: February 24-March 30, 2024
    - Councilwoman Koss Appointed to Serve on NLC Energy, Environment and Natural Resources Committee
- Upcoming Events:
    - March 5, 2024: Planning and Priorities Special Meeting, Council Chambers
    - March 26, 2024: Key to the City Presentation for Jawaan Taylor at the Cocoa City Council Meeting
    - April 2, 2024: Pathways Business Launch Program (For our Hispanic and Latino Business Community) - 7-week business education program in partnership with weVENTURE
- Social media/e-newsletter statistics
    - Facebook
        - Post reach: 45,021
        - Post engagement: 4,767
        - Followers: 15,371
    - Twitter
        - Impressions: 4,356
        - Followers: 3,300
    - LinkedIn
        - Post impressions: 1,618
        - Followers: 1,161
    - NextDoor
        - Impressions: 3,544
        - Members: 4,865
    - February E-newsletter (Sent 2/9/24)
        - Sent to 682 contacts
        - 46% open rate (average open rate for e-mail marketing in 2022 is 17%)
    - Next printed FYI Newsletter mails April 1, 2024.
- Upcoming special events at Leisure Services facilities:
    - **2024 Cocoa Mardi Gras Featuring Ripe w/Fox Royale and Buckwheat Zydeco Jr.**
        - February 24, 2024, 5-10:30pm
        - Cocoa Village and Riverfront Park
    - **Central Brevard County Humane Society Mardi Gras Paws in the Park**
        - February 25, 2024, 10a-3pm
        - Riverfront Park
    - **Historic Cocoa Village Main Street Spring Art & Craft Fair**

- March 2-3, 2024, 10a-4pm
- Riverfront Park and Cocoa Village

- **Cocoa Reggae & Rum Festival**
  - March 9, 2024, 2-10pm
  - Riverfront Park

Community Services – update 02/22/2024

- **New businesses – February 1-22, 2024**

FEBRUARY 2024 BTR's					
Commercial Business Name / DBA	Physical Address	# FT Employees	# Pt Employees	Council District	Description
Lake Medical DBA PakMail 22012	1087 Clearlake Road Unit C, 32922	1	1	4	Shipping Services & Supplies -Mon - Fri 9AM -6PM
Fluent Servicing, LLC	941 N. Cocoa Blvd, 32922	10	2	2	Medical Marijuana Dispensary-
This The Joint, LLC	712 S. Fiske Blvd, 32922	1	2	1	Kava Bar-Kratom Drinks -Smoke shop
MLP America, DBA Michael Blast Store	1617 N Cocoa Blvd , 32922	1	0	2	Electric Bike Sales & Service
Highway Petro 524, Inc	5550 Highway 524, 32926	1	1	3	Conv Store- 8 Gas Pumps (NO Food Prep)

February 9-22 building inspections – 149

February 9-22 building permits issued – 97

Finance

- Brian Dale, Purchasing & Contracts Manager, has been appointed as the Chair of the Brevard County Public Entity Purchasing Cooperative which is a local association that strives to share knowledge and resources among public procurement professionals in Brevard County.
- The auditors began the annual financial audit on 2/19.
- Payroll was processed the week of 2/19.
- 90,084 utility bills were processed for the month of January
- Committee meeting for the Cocoa CRA & Diamond Square CRA master plan updates vendor selection was held on 2/21/24.

Fire Department

- FireBlast training trailer remains at PRIDE getting body work completed.
- January calls for service 509 (68% EMS, 32% Fire Related)
- Recruit Firefighters started Fire School at EFSC on 2/4/2024.
- Multiple Public Relations events attended by crews.
- 3 New Hires sworn in on 02/02/2024 at 2pm at Fire Station 1.
- Chief Lamm travel to State Capital for Service Day on 2/13/2024 to 2/14/2024.
- Chief Lamm, Chief Hennessey, Chief Seeber, and Tony Jones travel to Sutphen in Ohio 2/19/2024 to 2/21/2024 for Inspection of new Engine and Pre-build of new Ladder truck.

Information Technology

- Project updates/highlights
  - PD Server hardware successfully upgraded
  - ITB for replacement Storage Area Network (SAN) closed and bids were opened
  - EFSC intern has begun in IT
- Helpdesk stats as of 9/8/2022
  - 86 open helpdesk tickets
  - 479 new tickets opened in last 30 days
  - 462 tickets closed/resolved in last 30 days
  - 4844 tickets opened in last 365 days

Police Department Updated 1/18/24

- Activity/Event highlights
  - MLK pararde
- New project/training updates
  - FDOT Regulations - School Zone Speed Cameras
  - EVOC Mandatory Training
- Chief's walk highlights

- None
- Community engagement highlights/events
  - MLK parade
- Call stats-Crime Stats: January 1, 2023- December 31, 2023 (For comparison purposes January 1, 2022-December 31, 2022, data is also included)
  - Property Crimes Offenses have decreased by 7%.
  - Violent Crime Offenses increased by 15% compared to YTD 2022.
  - Overall, crime offenses have decreased by 4%.
  - Calls for Service decreased 1% (74,122 in 2022 compared to 73,130 in 2023)
- Code Enforcement stats/highlights/Activity:

Active Cases	137
Complied Cases	82
Code Board Cases scheduled for	19
Snipe Signs Pulled	36

Highlights:

- Closed out the year 2023 to start fresh for 2024.
- Working on Outstanding Business Tax Receipts.
- Working to resolve Hot Topics: Grease issues/Discharge in Storm drains in Cocoa Village, 211 Coquina Dr., and Homeless Camps of Dixion and on Stone Street.

Other Mentions:

- Officers hitting hot areas beginning January 1, 2024. Sweeps account for the 137 Active Cases.

Public Works

- Major project updates
  - Fiske and Broadmoor Acres – Under Construction; Groundbreaking Event to be held on Tuesday, February 6th at Carl Anderson Park at 9:00 am.

    - Parks Projects
        - Provost – In progress
        - Don Stradley Memorial Park- In progress
- Work order stats (received/closed)
    - 86 received
    - 80 closed
    - Residential Bulk Green Waste Requests: 61
- Projects of interest managed by other agencies (FDOT, County, Brightline, etc.)
    - FDOT
        - SR 524 PD&E Study (437983-1) – In Progress
        - SR 501 Safety Project (447085-1) – Under Construction
        - SR 528 Widening and Reconstruction (407402-3) – In Design
        - SR 520 Safety Project Cox to Aurora (445689-1) - In Design
        - SR 520 Safety Project Aurora to Causeway (442885-1) - Under Construction
    - Brightline/FEC
        - Brightline formally launched a Request for Proposals (RFP) for a new station planned for the Treasure Coast of Florida. Brightline will announce the site in the first quarter of 2024.

Utilities

- Capital Project Updates: https://www.cocoafl.org/1660/Utilities-Capital-Improvement-Projects
- Operations – January
    - WFO Issued Work Orders – 2,202
    - WFO Completed Work Orders – 1,527
    - Hydrants Flushed – 144
    - Valves Exercised – 436
    - Utility Locate Requests – 2,395
    - SFO Issued Work Orders – 119
    - SFO Completed Work Orders – 177