City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB No. 461

TITLE: Victoria Park Stormwater Improvements

ADDENDUM NO.1

DATE: 06/25/2025

This addendum is being issued to: Revise Drawing Files, Revise Specification Cover Sheet to Include Uninterruptable Power System Specifications, Revise Painting Specification, Insert Uninterruptible Power Systems Specification and Update Bid Line Item Attachment.

1. **Revisions to Drawings, revisions clouded**
    a. PS-01 Pump Station Site Plan
    b. PS-02 Pump Station Grading Plan
    c. S-03 Pump Station and Seawall Plan and Section

2. **Revisions to Specifications**
    a. 00000 – Technical Specifications Cover Sheet and TOC: Table of Contents revised to insert Section 17190 (see TOC-4)
    b. 09900 – Painting: Revision (see page 13-17 of this section)

3. **17190 – Uninterruptible Power Systems: Insertion of new section into Specifications**

4. **Update Bid Line Item Attachment:**

    a. Line 1 description update to:

"The CONTRACTOR may request payment for this bid item after the Initial Notice to Proceed has been issued. Mobilization/Demobilization is limited to 7.5% of the Total Bid Price. Any amount in excess of 7.5 % will be moved to the last Line Item as deemed necessary and created by Procurement Services. However, the total bid amount will not change. The 7.5% ceiling on Mobilization/Demobilization is not responsiveness, just an instruction on the amount the CITY will pay for Mobilization/Demobilization. Payment for mobilization will be made at the lump sum price named in the Item Response Form. An initial lump sum partial payment of 40 percent of the Mobilization/Demobilization Pay Item shall be made upon issuance of the Notice to Proceed for mobilization. A final lump sum payment of the remaining 60 percent for demobilization will be made upon the original or amended Substantial Completion contract time stated in the original contract, amended contract, change order, another notice to proceed, or any other permissible document utilized to extend the Substantial Completion contract time. The

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

amount in excess of 7.5% will be paid on the last payment application submitted by the contractor.

b. Line 67 quantity update from 5 to 10

All other terms, conditions and specifications remain unchanged.

Paulette Hemmings Turner
Snr. Purchasing Specialist

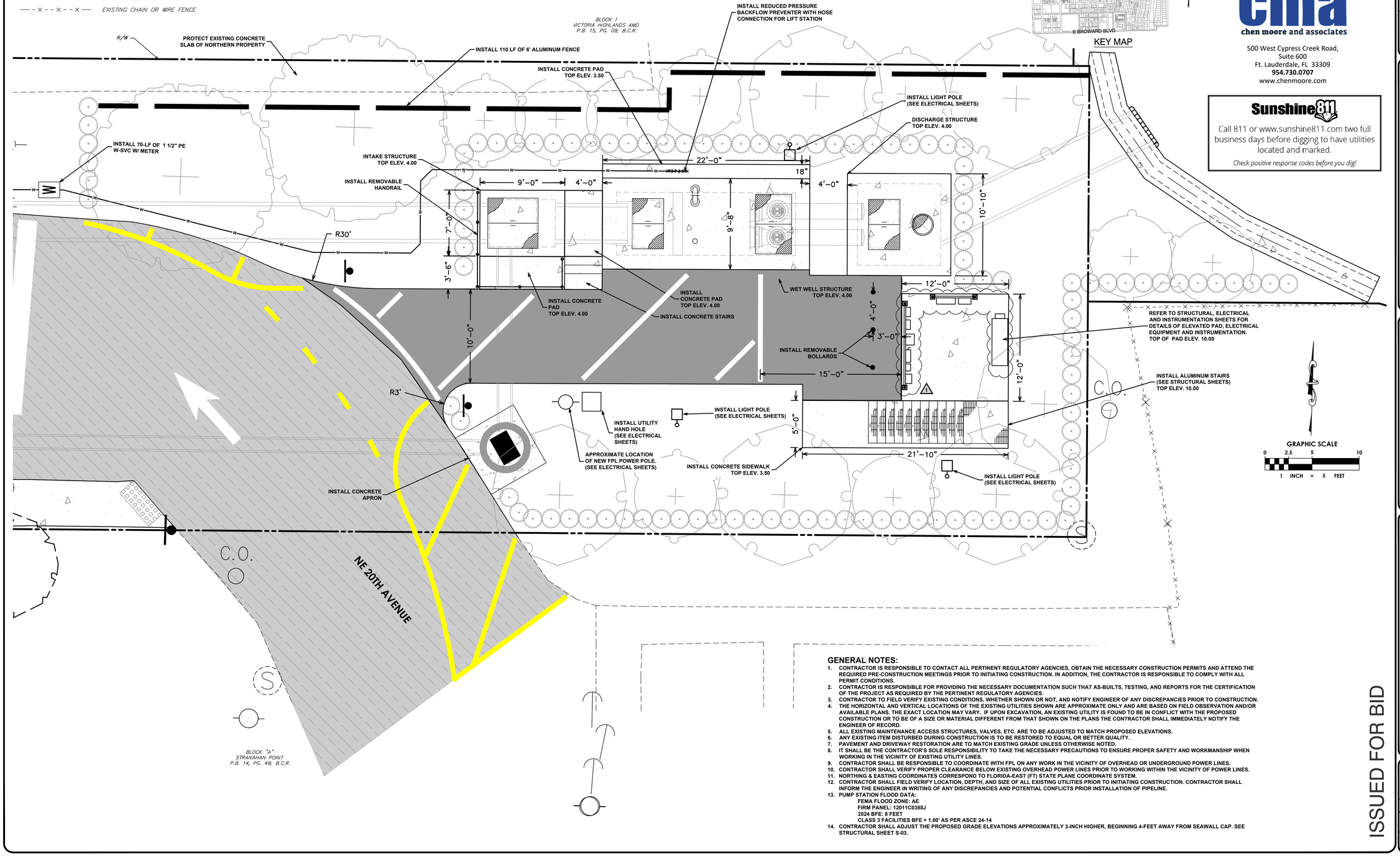
Company Name: _____
(Please print)

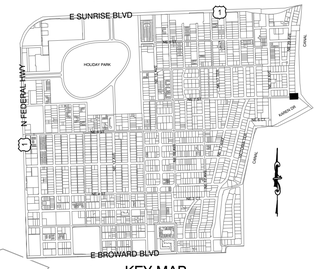
Bidder's Signature: _____

Date: _____

LEGEND

- PROPOSED ASPHALT
- PROPOSED ASPHALT MILL & RESURFACING
- PROPOSED BOLLARD
- RIGHT-OF-WAY LINE
- PROPOSED HANDRAIL
- PROPOSED BACKFLOW PREVENTER
- PROPOSED WATER METER AND SERVICE LATERAL
- EXISTING SANITARY SEWER MANHOLE
- EXISTING CLEANOUT
- EXISTING CHAIN OR WIRE FENCE





KEY MAP

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

Sunshine811
Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.
Check positive response codes before you dig!

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE TO CONTACT ALL PERTINENT REGULATORY AGENCIES, OBTAIN THE NECESSARY CONSTRUCTION PERMITS AND ATTEND THE REQUIRED PRE-CONSTRUCTION MEETINGS PRIOR TO INITIATING CONSTRUCTION. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL PERMIT CONDITIONS.
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE NECESSARY DOCUMENTATION SUCH THAT AS-BUILTS, TESTING, AND REPORTS FOR THE CERTIFICATION OF THE PROJECT AS REQUIRED BY THE PERTINENT REGULATORY AGENCIES.
3. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, WHETHER SHOWN OR NOT, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. THE HORIZONTAL AND VERTICAL LOCATIONS OF THE EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND ARE BASED ON FIELD OBSERVATION AND/OR AVAILABLE PLANS. THE EXACT LOCATION MAY VARY. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD.
5. ALL EXISTING MAINTENANCE ACCESS STRUCTURES, VALVES, ETC. ARE TO BE ADJUSTED TO MATCH PROPOSED ELEVATIONS.
6. ANY EXISTING ITEM DISTURBED DURING CONSTRUCTION IS TO BE RESTORED TO EQUAL OR BETTER QUALITY.
7. PAVEMENT AND DRIVEWAY RESTORATION ARE TO MATCH EXISTING GRADE UNLESS OTHERWISE NOTED.
8. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES.
9. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES.
10. CONTRACTOR SHALL VERIFY PROPER CLEARANCE BELOW EXISTING OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY OF POWER LINES.
11. NORTHING & EASTING COORDINATES CORRESPOND TO FLORIDA-EAST (FT) STATE PLANE COORDINATE SYSTEM.
12. CONTRACTOR SHALL FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO INITIATING CONSTRUCTION. CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DISCREPANCIES AND POTENTIAL CONFLICTS PRIOR INSTALLATION OF PIPELINE.
13. PUMP STATION FLOOD DATA:
    - FEMA FLOOD ZONE: AE
    - FIRM PANEL: 12011C0388J
    - 2024 BFE: 8 FEET
    - CLASS 3 FACILITIES BFE + 1.00' AS PER ASCE 24-14
14. CONTRACTOR SHALL ADJUST THE PROPOSED GRADE ELEVATIONS APPROXIMATELY 3-INCH HIGHER, BEGINNING 4-FEET AWAY FROM SEAWALL CAP. SEE STRUCTURAL SHEET S-03.

ISSUED FOR BID

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 06/17/25 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS			
NO.	DATE	BY	CHK'D	DESCRIPTION
1	06/17/25	JLS	DECF	ADDENDUM No. 1

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
PUMP STATION SITE PLAN

SHEET NO. PS-01 | SHT # 148
TOTAL: 233
CAD FILE: 12082–MULTI–PUMP
DRAWING FILE NO. 4–144–88

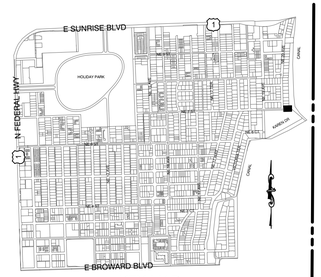
LEGEND

- PROPOSED ELEVATION (90.00)
- PROPOSED SURFACE FLOW ARROW
- PROPOSED ASPHALT
- PROPOSED ASPHALT MILL & RESURFACING
- PROPOSED GRASS
- PROPOSED CONCRETE
- PROPOSED BOLLARD
- PROPOSED ALUMINUM FENCE
- RIGHT-OF-WAY LINE
- PROPOSED CONTOUR
- PROPOSED HANDRAIL
- EXISTING SANITARY SEWER MANHOLE
- +0.00 EXISTING ELEVATION
- EXISTING CHAIN OR WIRE FENCE

Sunshine811

Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.

Check positive response codes before you dig!



KEY MAP

R/W

PROTECT EXISTING CONCRETE SLAB OF NORTHERN PROPERTY

INSTALL 110 LF OF 6' ALUMINUM FENCE

BLOCK 1
VICTORIA HIGHLANDS AMD
P.B. 15, PG. 09; B.C.R.

INSTALL CONCRETE PAD TOP ELEV. 4.00

INSTALL CONCRETE PAD TOP ELEV. 3.50

WET WELL STRUCTURE TOP ELEV. 4.00

DISCHARGE STRUCTURE TOP ELEV. 4.00

INTAKE STRUCTURE TOP ELEV. 4.00

42" RCP SD

MATCH EXISTING GRADES

15" RCP SD

10'

2.00

22' 5%

15' 1%

INSTALL CONCRETE PAD TOP ELEV. 4.00

INSTALL CONCRETE SIDEWALK TOP ELEV. 3.50

15" RCP SD

NE 20TH AVENUE

C.O.

BLOCK "A"
STRANAHAN POINT
P.B. 14, PG. 49; B.C.R.

REFER TO STRUCTURAL, ELECTRICAL AND INSTRUMENTATION SHEETS FOR DETAILS OF ELEVATED PAD, ELECTRICAL EQUIPMENT AND INSTRUMENTATION. TOP OF PAD ELEV. 10.00

INSTALL ALUMINUM STAIRS (SEE STRUCTURAL SHEETS) TOP ELEV. 10.00

GRAPHIC SCALE
0 2.5 5 10
1 INCH = 5 FEET

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE TO CONTACT ALL PERTINENT REGULATORY AGENCIES, OBTAIN THE NECESSARY CONSTRUCTION PERMITS AND ATTEND THE REQUIRED PRE-CONSTRUCTION MEETINGS PRIOR TO INITIATING CONSTRUCTION. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL PERMIT CONDITIONS.
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE NECESSARY DOCUMENTATION SUCH THAT AS-BUILTS, TESTING, AND REPORTS FOR THE CERTIFICATION OF THE PROJECT AS REQUIRED BY THE PERTINENT REGULATORY AGENCIES.
3. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, WHETHER SHOWN OR NOT, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
4. THE HORIZONTAL AND VERTICAL LOCATIONS OF THE EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND ARE BASED ON FIELD OBSERVATION AND/OR AVAILABLE PLANS. THE EXACT LOCATION MAY VARY. IF UPON EXCAVATION, AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION OR TO BE OF A SIZE OR MATERIAL DIFFERENT FROM THAT SHOWN ON THE PLANS THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD.
5. ALL EXISTING MAINTENANCE ACCESS STRUCTURES, VALVES, ETC. ARE TO BE ADJUSTED TO MATCH PROPOSED ELEVATIONS.
6. ANY EXISTING ITEM DISTURBED DURING CONSTRUCTION IS TO BE RESTORED TO EQUAL OR BETTER QUALITY.
7. PAVEMENT AND DRIVEWAY RESTORATION ARE TO MATCH EXISTING GRADE UNLESS OTHERWISE NOTED.
8. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES.
9. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES.
10. CONTRACTOR SHALL VERIFY PROPER CLEARANCE BELOW EXISTING OVERHEAD POWER LINES PRIOR TO WORKING WITHIN THE VICINITY OF POWER LINES.
11. NORTHING & EASTING COORDINATES CORRESPOND TO FLORIDA-EAST (FT) STATE PLANE COORDINATE SYSTEM.
12. CONTRACTOR SHALL FIELD VERIFY LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO INITIATING CONSTRUCTION. CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DISCREPANCIES AND POTENTIAL CONFLICTS PRIOR INSTALLATION OF PIPELINE.
13. CONTRACTOR SHALL ADJUST THE PROPOSED GRADE ELEVATIONS APPROXIMATELY 3-INCH HIGHER, BEGINNING 4-FEET AWAY FROM SEAWALL CAP. SEE STRUCTURAL SHEET S-03.

ISSUED FOR BID

Hazen

HAZEN AND SAWER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DATE: 06/17/25
DESIGNED BY: DECF | SCALE: AS SHOWN
CHECKED BY: JJM | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

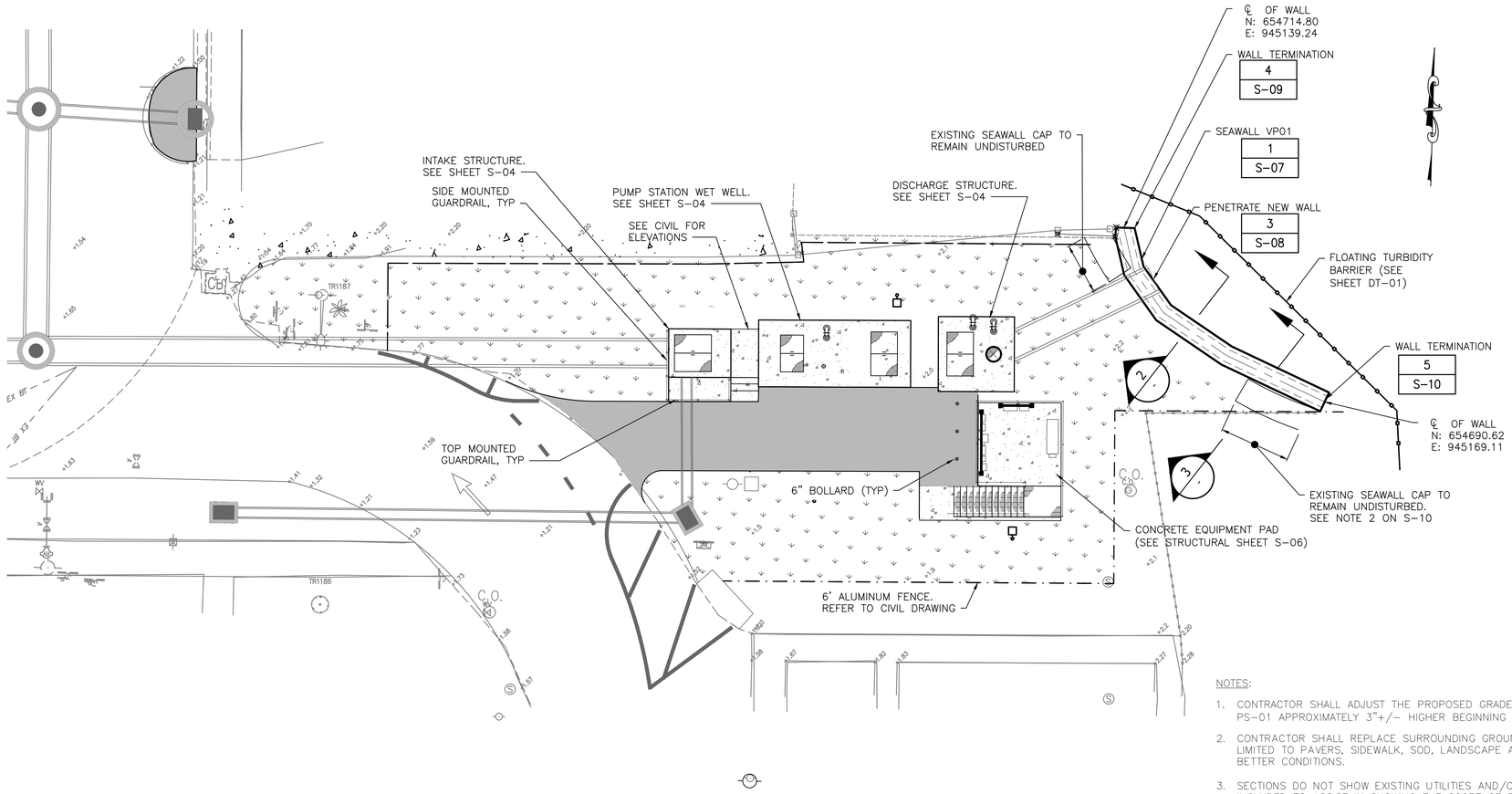
REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION
1	06/17/25	JLS	DECF	ADDENDUM No. 1

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

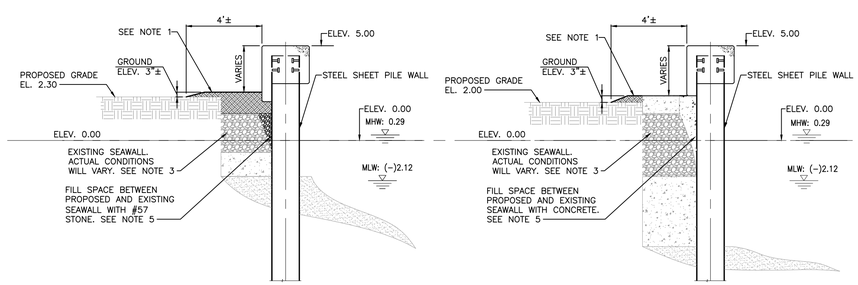
PUMP STATION GRADING PLAN

SHEET NO. PS-02 | SHT # 149
TOTAL: 233
CAD FILE: 12082-PS-02
DRAWING FILE NO. 4-144-88



PROPOSED PLAN - SEAWALL VP01

1" = 10'



PROPOSED SEAWALL

SECTION 2

NTS

PROPOSED SEAWALL

SECTION 3

NTS

NOTES:

1. CONTRACTOR SHALL ADJUST THE PROPOSED GRADE ELEVATIONS ON CIVIL SHEET PS-01 APPROXIMATELY 3"+/- HIGHER BEGINNING 4'+/- AWAY FROM SEAWALL CAP.
2. CONTRACTOR SHALL REPLACE SURROUNDING GROUND AFFECTED INCLUDING BUT NOT LIMITED TO PAVERS, SIDEWALK, SOD, LANDSCAPE AND BRING IT TO EXISTING OR BETTER CONDITIONS.
3. SECTIONS DO NOT SHOW EXISTING UTILITIES AND/OR LANDSCAPE. SECTIONS ARE INCLUDED TO ASSIST IN SHOWING THE SCOPE OF PROPOSED WORK AND ARE NOT INTENDED TO INDICATE ALL WORK REQUIRED FOR SITE GRADING AND SEAWALL INSTALLATION. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO COMMENCE WORK AND INCLUDE ALL WORK REQUIRED IN THE BID PRICE.
4. CONTRACTOR SHALL LOCATE PROPOSED SEAWALL AT A MAXIMUM OF 18 INCHES WET FACE TO WET FACE FROM EXISTING SEAWALL THROUGHOUT THE ENTIRE LENGTH OF THE SEAWALL. WET FACE OF EXISTING SEAWALL IS MEASURED FROM THE BOTTOM OF THE DOWNWARD SLOPING WALL AT THE POINT WHERE THE RUBBLE WALL MEETS THE FOOTING. NO EXCEPTIONS SHALL BE MADE TO THIS MAXIMUM DISTANCE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE SEAWALL TO MEET THE PERMIT REQUIREMENTS. THE WET FACE TO WET FACE RANGE MEASURED AT MHW LEVEL FOR THE PROPOSED SEAWALLS IS APPROXIMATELY 18 TO 48 INCHES.
5. CONTRACTOR SHALL REFER TO THE STRUCTURAL DRAWING SHEETS S-07 THRU S-10 FOR SEAWALL STRUCTURAL REQUIREMENTS.
6. SAWCUT AND REMOVAL OF THE EXISTING CAP MAY COMPROMISE THE INTEGRITY OF THE EXISTING WALL. REFER TO S-07 AND TO WALL TERMINATION DETAILS ON DRAWINGS SHEETS S-09 THROUGH S-10 FOR CAP DEMOLITION LIMITS.
7. CONTRACTOR SHALL REFER TO CIVIL DRAWING SHEETS FOR PUMP STATION AND PIPE OUTFALL LOCATIONS.
8. CONTRACTOR SHALL INSTALL TURBIDITY BARRIERS IN ALL PERMANENT BODIES OF WATER THROUGHOUT ALL PHASES OF CONSTRUCTION REGARDLESS OF WATER DEPTH TO MEET REGULATORY STANDARDS.
9. CONTRACTOR SHALL INSTALL THE SEAWALL STRAIGHT WITH MINIMAL CHANGES IN ALIGNMENT AND SHALL REMOVE PARTS OF EXISTING SEAWALL IF REQUIRED TO MEET THE MINIMAL CHANGES IN ALIGNMENT. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO SHOW PROPOSED LAYOUT OF THE WALL FOR ENGINEER'S APPROVAL. WALL ALIGNMENT SHALL ALSO COMPLY WITH THE 18 INCHES MAXIMUM DISTANCE FROM "WET FACE TO WET FACE", ALONG ITS ENTIRE LENGTH.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, SEQUENCES, TECHNIQUES, AND JOB SAFETY IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.

1 11. ALL NEW CONCRETE SURFACES AND ALL NEW NON-FACTORY COATED METAL COMPONENTS, INCLUDING BUT NOT LIMITED TO STRUCTURAL STEEL, SHEET PILES, MECHANICAL, ELECTRICAL, AND INSTRUMENTATION EQUIPMENT, AND OTHER MISCELLANEOUS METALS SHALL BE COATED IN ACCORDANCE WITH SECTION 09900 OF THE TECHNICAL SPECIFICATIONS, UNLESS NOTED OTHERWISE.

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 1988)

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
It's fast. It's free. It's the law.
www.callsunshine.com

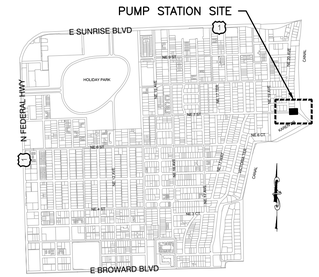
LEGEND

EXISTING

PROPOSED

PROPOSED SEAWALL

0 10' 20'



KEY MAP

ISSUED FOR BID

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

ENGINEER:
SAMUEL J. SMITH
REG. No. 73410
DATE: 02/03/25
TEL: 954-987-0066
FAX: 954-987-2949

DRAWN BY: TB
DATE: 02/03/25
DESIGNED BY: CJA
SCALE: AS NOTED
CHECKED BY: JPS
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION
1	6/17/25	AER	SJS	ADDENDUM No. 1

PROJECT # 12082
STORMWATER IMPROVEMENTS
VICTORIA PARK NEIGHBORHOOD
PUMP STATION AND SEAWALL
PLAN AND SECTION

SHEET NO. S-03
SHT # 153
TOTAL: 233
CAD FILE: 12082-S03
DRAWING FILE NO. 4-144-88

PLOT DATE: 6/20/2025 2:58 PM BY: TBOCAS

File = O:\43193-hwd\43193-022\CAD_BIM\Structural\12082-S03 Saved by tbocas Save date = 6/20/2025 2:57 PM

CITY OF FORT LAUDERDALE
CONTRACT AND SPECIFICATIONS PACKAGE

PROJECT NO. 12082

STORMWATER MASTER PLAN MODELING AND DESIGN IMPLEMENTATION

VICTORIA PARK STORMWATER IMPROVEMENTS

ISSUED FOR BID

Issued on Behalf of:
The Public Works Department
Engineering Division
101 NE 3rd Ave Suite 2100
Fort Lauderdale, FL 33301

Deborah Cueva, PE, MPA
Project Manager II

Paulette Hemmings Turner, MBA, CPP
SENIOR PROCUREMENT SPECIALIST
Telephone: (954) 828-5139 E-mail: pturner@fortlauderdale.gov

TABLE OF CONTENTS

I. BID INFORMATION

Invitation to Bid ..... ITB-1 thru ITB-2
Instruction to Bidders .....IB-1 thru IB-6
Special Conditions ..... SC-1 thru SC-6

II. CONSTRUCTION AGREEMENT (SAMPLE)..... C-1 thru C-39

III. GENERAL CONDITIONS .....GC-1 thru GC-10

IV. SPECIFICATIONS

DIVISION 1 – GENERAL REQUIREMENTS

01001 General Requirements……
01005 Intent of Drawings and Specifications .....
01010 Summary of Work .....
01025 Measurement and Payment .....
01070 Abbreviations .....
01090 Reference Standards .....
01200 Project Meetings .....
01300 Submittals .....
01312 Field Engineering .....
01320 Project Record Documents .....
01400 Quality Control .....
01430 Operations and Maintenance Data……
01510 Temporary Utilities .....
01520 Construction Constraints .....
01525 Maintenance of Traffic .....
01530 Protection of Existing Facilities .....
01550 Site Access and Storage .....
01560 Temporary Environmental Controls .....
01580 Project Identification and Signs .....
01590 Field Office, Equipment, and Services .....
01600 Materials and Equipment .....
01660 Equipment Testing and Startup .....
01700 Project Closeout……..

DIVISION 2 - SITE CONSTRUCTION

02015 Mobilization and Demobilization .....
02100 Erosion and Sediment Control – Stormwater Pollution Prevention .....
02200 Site Preparation .....
02220 Demolition .....
02222 Excavation and Backfill for Utilities .....
02224 Excavation and Backfill for Structures .....
02225 Contaminated Soils and Groundwater .....
02240 Dewatering .....
02300 Earthwork .....
02314 Vibration and Noise Monitoring……..
02369 Steel Sheet Piling……

02371 Geotextiles.....
02481 Tree Relocation and Protection.....
02535 Structures .....
02575 Surface Restoration .....
02630 Storm Drain Facilities.....
02631 Exfiltration Trench Drains.....
02632 Corrugated Polypropylene Drainage Pipe.....
02665 Cured-in-Place Pipe Lining.....
02710 Limerock Base.....
02723 Stormwater Pipe Cleaning and Internal TV Inspection.....
02761 Pavement Marking.....
02771 Concrete Curb and Sidewalk .....
02772 Asphalt Pavement.....
02820 Fence System.....
02900 Landscaping .....
02911 Soil Preparation .....
02920 Sodding .....

DIVISION 3 – CONCRETE

03100 Concrete Formwork .....
03200 Concrete Reinforcement.....
03290 Joints in Concrete.....
03300 Cast-in-Place Concrete.....
03315 Grout.....
03350 Concrete Finishes.....
03370 Concrete Curing.....
03400 Precast Concrete – General .....
03480 Precast Concrete Manholes, Handholes, and Vaults .....

DIVISION 5 – METALS

05010 Metal Materials .....
05035 Galvanizing.....
05050 Metal Fastening.....
05120 Structural Steel.....
05140 Structural Aluminum.....
05500 Metal Fabrication.....
05510 Metal Stairs.....
05515 Ladders.....
05520 Handrails and Railings.....
05531 Grating, Floor Plates, and Access Hatches.....
05540 Castings.....

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07160 Bituminous Dampproofing.....
07920 Sealants and Caulking.....

DIVISION 9 – FINISHES

09900 Painting .....

DIVISION 11 – EQUIPMENT AND GENERAL PROVISIONS

11000 Equipment General Provisions.....
11100 Pumps – General……
11105 Submersible Axial Flow Pumps……..

DIVISION 15 – MECHANICAL

15000 Basic Mechanical Requirements……
15006 Ductile Iron Pipe……...
15008 PVC Non-Pressure Pipe……
15009 PVC Pressure Pipe……..
15020 Pipe Supports……...
15030 Piping and Equipment Identification Systems……..
15095 Valves – General……..
15100 Valve Operators……...
15104 Ball Valves……
15108 Gate Valves……..
15114 Miscellaneous Valves and Appurtenances……..
15177 Inline Check Valves…….
15202 Flap Gates…….
15995 Pipeline Testing and Disinfection……...

DIVISION 16 – ELECTRICAL

16000 Basic Electrical Requirements .....
16055 Power System Studies……
16111 Conduit……
16118 Underground Electrical……..
16123 Low Voltage Wire and Cable……
16130 Boxes……
16170 Grounding and Bonding……..
16190 Supporting Devices……
16195 Electrical Identification……
16280 Surge Protective Devices……
16440 Disconnect Switches……...
16461 Dry Type Distribution Transformers……..
16480 Low-Voltage Electric Motors……...
16500 Lighting……..

DIVISION 17 – CONTROL AND INFORMATION SYSTEMS

17000 Control and Information System Scope and General Requirements .....
17030 Control and Information System Submittals……
17040 Control and Information System Training Requirements……..
17050 Tools, Supplies, and Spare Parts – General……
17060 Signal Coordination Requirements……
17070 Control and Information System Testing – General……
17072 Field Testing……
17073 Final Acceptance Test……..
17080 Quality Assurance……
17100 Control and Information System Hardware – General……..
17120 Programmable Logic Controllers……..
17125 Operator Interface Units……

17135 Cellular Communications System…….
17185 Networks……..…
17190 Uninterruptible Power Systems……..
17303 Air Bubbler Level Systems…….
17500 Enclosures – General……..
17510 Cabinets and Panels……
17550 Panel Instruments and Accessories……
17560 Surge Protection Devices……..
17600 Unpowered Instruments – General……..
17670 Level Switches (Suspended Float Type)……
17698 Instrumentation and Control System Accessories……
17700 Powered Instruments – General……..
17910 Instrument Schedule……..
17920 Control System Input Output Schedule……..
17950 Functional Control Descriptions……

APPENDIX

Appendix A – Geotechnical Services Report by RADISE International, February 2018
Appendix B – Benthic Survey by The Chappel Group, Inc., August 2024
Appendix C – Topographic Survey by Craven Thompson & Associates, Inc., August 2024
Appendix D – SUE Test Hole Report by InfraMap, October 2024
Appendix E – WIFIA Program Borrower Guide to Federal Requirements, November 2022

Note: **The following documents are available electronically for completion and documents must be returned with your bid along with your bid security, proof of insurance, and proof of required licenses/certifications.**

CITB Prime Contractor ID Form
ITB Questionnaire Sheets
CITB Local Business Preference
CITB Trench Safety
CITB Non-Collusion Statement
CITB Contract Payment Method
CITB Construction Bid Certification

SECTION 09900 PAINTING

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish all labor, tools, materials, supervision and equipment necessary to do all the work specified herein and as required for a complete installation, including surface preparation, priming and painting of Contractor furnished equipment, materials, and structures.

B. Section includes:

1. Paint Materials
2. Shop Painting
3. Field Painting
    a. Surface Preparation
    b. Piping and Equipment Identification
    c. Schedule of Colors
    d. Work in Confined Spaces
    e. OSHA Safety Colors

1.02 GENERAL INFORMATION AND DESCRIPTION

A. The term "paint," as used herein, includes emulsions, enamels, paints, stains, varnishes, sealers, cement filler, cement epoxy fillers and other coatings, whether used as prime, intermediate, or finish coats.

B. All paint for concrete and metal surfaces shall be especially adapted for use in and around water and wastewater treatment facilities and shall be applied in conformance with the manufacturer's published specifications.

C. All paint for final coats shall be fume resistant, compounded with pigments suitable for exposure to sewage gases, especially to hydrogen sulfide and to carbon dioxide. Pigments shall be materials which do not tend to darken, discolor, or fade due to the action of sewage gases. If a paint manufacturer proposes use of paint which is not designated "fume resistant" in its literature, it shall furnish full information concerning the pigments used in this paint.

D. Provide primers and intermediate coats produced by same manufacturer as finish coat. Use only thinners approved by paint manufacturer, and only within manufacturer’s recommended limits.

E. Coatings used in conjunction with potable water supply systems shall have U.S. Environmental Protection Agency (EPA) and FDA approval for use with potable water and shall not impart a taste or odor to the water.

F. All building, facilities, structures, and appurtenances, as indicated on the Drawings and as specified herein, shall be painted with not less then one shop coat and two field coats, or one prime coat and two finish coats of the appropriate paint. Items to be painted include, but are not limited to, exterior and interior concrete, structural steel, miscellaneous metals, steel and aluminum doors and frames, concrete block, ductwork, sluice gates, operators, pipe fittings, valves, mechanical equipment, motors, conduit, and all other work which is obviously required to be painted unless otherwise specified.

G. Baked on enamel finishes and items with standard shop finishes such as graphic panels, electrical equipment, toilet partitions, lockers, instrumentation, etc., shall not be field painted unless the finish is damaged during shipment or installation. Aluminum, stainless steel, fiberglass and bronze work shall not be painted unless color coding and marking is required or otherwise specified. A list of surfaces not to be coated is included in Article 1.09 of this Section.

H. Ensure compatibility of total paint system for each substrate. Test shop primed equipment delivered to the site for compatibility with final paint system. Provide an acceptable barrier coat or totally remove shop applied paint system when incompatible with system specified, and repaint with specified paint system.

I. The Contractor shall obtain all permits, licenses and inspections and shall comply with all laws, codes, ordinances, rules and regulations promulgated by authorities having jurisdiction which may bear on the work. This compliance will include Federal Public Law 91-596 more commonly known as the "Occupational Safety and Health Act of 1970".

1.03 REFERENCE SPECIFICATION, CODES AND STANDARDS

A. Without limiting the generality of these specifications the Work shall conform to the applicable requirements of the following documents:

1. SSPC - The Society for Protective Coatings Standards

a.	SSPC-Vis 1	Pictorial Surface Preparation Standards for Painting Steel Structures
b.	SSPC-SP2	Hand Tool Cleaning
c.	SSPC-SP3	Power Tool Cleaning
d.	SSPC-SP5	(NACE No. White Metal Blast Cleaning
e.	SSPC-SP6	(NACE No. Commercial Blast Cleaning
f.	SSPC-SP10	(NACE No. Near-White Metal Blast
g.	SSPC-SP13	(NACE No. 6) Surface Preparation of Concrete

2. NACE - National Association of Corrosion Engineers

3. ASTM D1737 - Test Method for Elongation of Attached Organic Coatings with Cylindrical Mandrel Apparatus

4. ASTM B117 - Method of Salt Spray (Fog) Testing

5. ASTM D4060 - Test Method for Abrasion Resistance of Organic Coating by the Taber Abraser

6. ASTM D3359 - Method for Measuring Adhesion by Tape Test

1.04 MANUFACTURERS

A. All painting materials shall be as manufactured by Tnemec, Carboline, Sherwin Williams, or equal.

1.05 SUBMITTALS

A. The Contractor shall submit paint manufacturer's data sheets, application instructions, and samples of each finish and color to the Engineer for review, before any work is started in accordance with Section 01300 entitled, "Submittals."

B. Submitted samples of each finish and color shall be prepared in a step-down format so that the area of each sample indicates the appearance of the various coats. For example, where a three-coat system is specified, the sample shall be divided into three areas indicating one coat only, two coats and all three coats. The Engineer will provide written authorization constituting a standard, as to color and finish only, for each coating system.

C. The Contractor shall prepare a complete schedule of surfaces to be coated and shall identify the surface preparation and paint system proposed for use. The Paint Schedule shall be in conformance with Article 3.03 of this Section. The schedule shall contain the name of the paint manufacturer, and the name, address, email address and telephone number of the manufacturer’s representative that will inspect the Work, and/or the certified NACE Level 2 (or higher) inspectors assigned by the manufacturer that will inspect the Work of the steel sheet pile coating. The schedule shall be submitted to the Engineer for review as soon as possible following the Notice to Proceed. The manufacturer shall submit a letter stating that the paint systems are proper for the exposure and service. If applicable, the manufacturer shall recommend improvements to the paint system specified, specific to the products being furnished.

D. Certifications of NACE Level 2 (or higher) inspectors (for seawall steel sheet pile coating).

E. For the seawall steel sheet pile coating, submit a coating repair plan procedure provided by the paint manufacturer. The repair plan procedure shall consist of surface preparation and a compatible painting system equal to or better than the original painting system that will be applied in the field. Submit the corresponding paint manufacturer’s data sheets and application instructions.

F. Name and detailed qualifications of the protective coating applicator or subcontractor. Qualifications shall include, but not be limited to, five (5) project references which show that the painting applicator or subcontractor has previous successful experience with the specified or comparable coating systems, a list of installations that are currently in service and documentation that applicator or subcontractor is currently a qualified applicator of

the proposed coatings by the manufacturer. Include the name, address and telephone number of the owner of each installation for which the coating applicator provided the coating.

1.06 SERVICES OF MANUFACTURER'S REPRESENTATIVE

A. The Contractor shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a representative to inspect the application of his product both in the shop and field. The Contractor, through the manufacturer's representative, shall submit his report to the Engineer at the completion of his Work identifying the products used and verifying that said products were properly applied and that the paint systems were proper for the exposure and service.

B. For the seawall steel sheet pile, the Contractor shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a certified NACE Level 2 (or higher) inspector, to provide continuous inspection of the application of the products and to provide an inspection report of all elements painted. Certification of all NACE Level 2 (or higher) inspectors shall be submitted for review prior to surface preparation and painting. The inspection report shall be submitted at the completion of painting. The report shall reference each structural element, identify the products used and verify they were applied in conformance with the contract documents.

C. Services shall also include, but not be limited to, inspecting prior coatings of paint, determination of best means of surface preparation, inspection of complete work, and re-inspection of painted work to be performed six months after the job is completed.

1.07 MANUFACTURER'S INSTRUCTIONS

A. The manufacturer's published instructions for use as a guide in specifying and applying the manufacturers proposed paint shall be submitted to the Engineer. Paint shall not be delivered to the job before acceptance of the manufacturer's instructions is given by the Engineer.

B. A manufacturer's paint will not be considered for use unless that manufacturer's published instructions meets the following requirements:

1. The instructions must have been written and published by the manufacturer for the purpose and with the intent of giving complete instruction for the use and application of the proposed paint in the locality and for the conditions for which the paint is specified or shown to be applied under this Contract.

2. All limitations, precautions, and requirements that may adversely affect the paint; that may cause unsatisfactory results after the painting application; or that may cause the paint not to serve the purpose for which it was intended; that is, to protect the covered material from corrosion, shall be clearly and completely stated in the instructions. These limitations and requirements shall, if they exist, include, but not be limited to the following:

a. Methods of application

b. Number of coats

c. Thickness of each coat

d. Total thickness

e. Drying time of each coat, including primer

f. Primer required to be used

g. Primers not permitted

h. Use of a primer

i. Thinner and use of thinner

j. Temperature and relative humidity limitations during application and after application

k. Time allowed between coats

l. Protection from sun

m. Physical properties of paint including solids content and ingredient analysis

n. Surface preparation

o. Touch up requirements and limitations

C. Concrete surfaces specified by the paint manufacturer to be acid etched shall be etched in accordance with the manufacturer's instructions. The surface shall then be thoroughly scrubbed with clean water, rinsed, and allowed to dry. The surface shall be tested with a moisture meter to determine when dry before coating. The surface shall also be tested for pH to determine the acid has been properly neutralized.

1.08 QUALITY ASSURANCE

A. The Contractor shall give the Engineer a minimum of three days advance notice of the start of any field surface preparation work of coating application work.

B. All such Work shall be performed only in the presence of the Engineer, unless the Engineer has specifically allowed the performance of such Work in his absence.

C. Review by the Engineer, or the waiver of review of any particular portion of the Work, shall not relieve the Contractor of his responsibility to perform the Work in accordance with these Specifications.

D. The Contractor shall provide references of the coating applicator or subcontractor per article 1.05, E.

1.09 SAFETY AND HEALTH REQUIREMENTS

A. In accordance with requirements of OSHA Safety and Health Standards for Construction (29CFR1926) and the applicable requirements of regulatory agencies having jurisdiction, as well as manufacturer's printed instructions, appropriate technical bulletins, manuals,

and material safety data sheets, the Contractor shall provide and require use of personnel protective and safety equipment for persons working in or about the project site.

B. Respirators shall be worn by persons engaged or assisting in spray painting. The Contractor shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the work.

C. All paint shall comply with all requirements of the Air Pollution Regulatory Acts concerning the application and formulation of paints and coatings for an area in which the paints are applied. Specifically, paints shall be reformulated as required to meet the local, State and Federal requirements.

1.10 SURFACES NOT TO BE COATED

A. The following items shall not be coated unless otherwise noted:

1. Encased piping or conduit.

2. Stainless steel work.

3. Clear PVC secondary containment piping.

4. Galvanized checkered plate.

5. Aluminum handrails, walkways, windows, louvers, grating and checkered plate.

6. Flexible couplings, lubricated bearing surfaces and insulation.

7. Packing glands and other adjustable parts of mechanical equipment.

8. Finish hardware.

9. Steel encased in concrete or masonry (except for seawall).

10. Plastic switch plates and receptacle plates.

11. Signs and nameplates.

12. Any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name or nomenclature plates.

13. Any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sensing devices, motor and fan shafts, unless otherwise indicated.

1.11 QUALITY WORKMANSHIP

A. The Contractor shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect work whenever such covering is necessary, or if so requested by the City. Any unwanted paint shall be carefully removed without damage to any finished paint or surface. If damage occurs, the entire surface, adjacent to and including the damaged area, shall be repainted without visible lapmarks and without additional cost to the City.

B. Painting found defective shall be scraped or sandblasted off and repainted as the City may direct. Before final acceptance of the work, damaged surfaces of paint shall be cleaned and repainted as directed by the City.

1.12 ADDITIONAL PAINT

A. At the end of the project, the Contractor shall turn over to the City a one gallon can (single component material) or small kit (multi component material – minimum of one gallon yield) of each type and color of paint, primer, thinner or other coating used in the field painting. The material shall be delivered in unopened, labeled cans as it comes from the factory. The manufacturer's literature describing the materials and giving directions for their use shall be furnished in three bound copies. A type-written inventory list shall be furnished at the time of delivery.

1.13 SHIPPING, HANDLING AND STORAGE

A. All painting materials shall be brought to the job site in the original sealed labeled containers of the paint manufacturer and shall be subject to review by the Engineer. Where thinning is necessary, only the product of the manufacturer furnishing the paint shall be used. All such thinning shall be done strictly in accordance with the manufacturer's instructions, and with the full knowledge of the Engineer.

B. Materials and their storage shall be in full compliance with the requirements of pertinent codes and fire regulations. Receptacles shall be placed outside buildings for paint gates and containers. Paint waste shall not be disposed of in plumbing fixtures, process drains or other plant systems or process units.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Table 09900-1 depicts the coatings referenced in Article 3.03 of this Section entitled, "Paint Schedule". Table 09900-1 lists Tnemec, Carboline, and Sherwin-Williams products as a reference. Equivalent products by the Manufacturer’s listed in Article 1.04 of this Section may be submitted for review.

TABLE 09900-1
PRODUCT LISTING

Ref. No.	Description	Manufacturer’s Reference		
		Tnemec	Carboline	Sherwin-Williams
101	Waterborne Polyamine Epoxy	151-1051 ElastoGrip FC	Sanitile 120	Loxon Conditioner
102	Water Based Block Filler	1254 Epoxoblock WB	Sanitile 100	Corobond 300

Ref. No.	Description	Manufacturer's Reference		
		Tnemec	Carboline	Sherwin-Williams
103	Modified Polyamidoamine Epoxy	135 – Color	Carboguard 890 – Color	Macropoxy 646
104	Polyamidoamine Epoxy Primer	N69 – 1211	Carboguard 890 – 0500	Macropoxy 646
105	Polyamidoamine Epoxy	N69 – Color	Carboguard 890 – Color	Macropoxy 646
106	Coal Tar epoxy	46H-413 Hi-Build Tneme-Tar	Bitumastic 300M	Hi-Mil Sher Tar Epoxy
107	Waterborne Acrylic Epoxy	113-Color	Sanitile 255 – Color	Hi-Bild WB Catalyzed Epoxy
110	Aliphatic Acrylic Polyurethane	1095 – Color	Carbothane 133HB – Color	Acrolon Ultra
111	Modified Waterborne Acrylate	156 - Envirocrete (Smooth Texture)	Flexxide Elastomer	Loxon XP
114	Acrylic Concrete Primer	6 Tneme-Cryl	Sanitile 120	Loxon Conditioner
115	Aromatic Urethane / Epoxy Zinc Rich	90-97 Tneme-Zinc	Carbozinc 859	Corothane I Galvapac
116	Water repellent	668 Chemprobe Deck A Pell 40	Carbocrete Sealer WB	H&C SL-40
118	Epoxy Modified Cementitious Mortar	218 MortarClad	Carboguard 510 SG	Corobond 300
119	Cycloaliphatic Amine Epoxy	104 H.S. Epoxy	Carboguard 893 (Non-immersion) Phenoline 385 (Immersion)	Tank Clad HS
121	Organic Zinc	90-97 Tneme-Zinc	Carbozinc 85	Zinc Clad 4100

PART 3 – EXECUTION

3.01 SURFACE PREPARATION

A. General

1. Surfaces to be painted shall be clean and dry, and free of dust, rust, scale and all foreign matter. No solvent cleaning, power or hand tool cleaning shall be permitted unless acceptable to the Engineer or specified herein.

2. Threaded portions of valve and gate stems, machined surfaces which are limited for sliding contact, surfaces which are to be assembled against gaskets, surfaces or shafting on which sprockets are to fit, or which are intended to fit into bearings, machined surfaces of bronze trim on slide gates and similar surfaces shall be masked off to protect them from the sandblasting of adjacent surfaces. Cadmium-plated or galvanized items shall not be sandblasted unless hereinafter specified, except that cadmium-plated, zinc-plated, or sherardized fasteners used in assembly of equipment to the sandblasted shall be sandblasted in the same manner as the unprotected metal. All installed equipment, mechanical drives, and adjacent painted equipment shall be protected from sandblasting. Protection shall prevent any sand or dust from entering the mechanical drive units or equipment where damage could be caused.

3. Hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place prior to cleaning and painting, and not intended to be painted, shall be protected or removed during painting operations and repositioned upon completion of painting operations.

4. Examine surfaces to be coated to determine that surfaces are suitable for specified surface preparation and painting. Report to Engineer surfaces found to be unsuitable in writing. Do not start surface preparation until unsuitable surfaces have been corrected. Starting surface preparation precludes subsequent claim that such surfaces were unsuitable for the specified surface preparation or painting.

5. Surface preparation shall be in accordance with specifications and manufacturer's recommendations. Provide additional surface preparation, and fill coats where manufacturer recommends additional surface preparation, in addition to requirements of specification.

6. Touch-up shop or field applied coatings damaged by surface preparation or any other activity, with the same shop or field applied coating; even to the extent of applying an entire coat when required to correct damage prior to application of the next coating. Touch up coats are in addition to the specified applied systems, and not considered a field coat.

7. Protect motors and other equipment during blasting operation to ensure blasting material is not blown into motors or other equipment. Inspect motors and other equipment after blasting operations and certify that no damage occurred, or where damage occurred, the proper remedial action was taken.

8. Sand from sandblasting shall be thoroughly removed, using a vacuum cleaner if necessary. No surface which has been sandblasted shall be painted until inspected by the Engineer.

B. Metal Surfaces

1. Except as otherwise provided, all preparation of metal surfaces shall be in accordance with Specifications SP-1 through SP-10 of the Society for Protective Coatings (SSPC). Where the Society for Protective Coatings Specifications are referred to in these Contract Documents, the corresponding Pictorial Surfaces Preparation Standard shall be used to define the minimum final surface conditions to be supplied. Grease and oil shall be removed and the surface prepared by hand tool cleaning, power tool cleaning or blast cleaning in accordance with the appropriate Specification SP-1 through SP-30.

2. Perform blast cleaning operations for metal when following conditions exist:

   a. Moisture is not present on the surface.

   b. Relative humidity is below 80%.

   c. Ambient and surface temperatures are 5°F or greater than the dew point temperature.

   d. Painting or drying of paint is not being performed in the area.

   e. Equipment is in good operating condition.

   f. Proper ventilation, illumination, and other safety procedures and equipment are being provided and followed.

3. Weld flux, weld spatter and excessive rust scale shall be removed by power tool cleaning as per SSPC-SP-3.

4. All ferrous metal surfaces not required to be galvanized shall be cleaned of all oil grease, dirt, rust and tight and loose mill scale by blasting in accordance with the following: SSPC-SP 5 White Metal Blast Cleaning and comply with the visual standard NACE No. 1, for shop prepared and shop primed metal to be submerged or in a corrosive environment, SSPC-SP10 Near White Metal Blast Cleaning, and comply with the visual standard NACE No. 2 for field prepared metal to be submerged or in a corrosive environment, SSPC-SP6 and comply with the visual standard NACE No. 3 for metal in all other locations. Steel sheet piles shall receive surface preparation in accordance with SSPC-SP 10 Near White Metal Blast Cleaning with the visual standard NACE No. 2 with a minimum angular anchor profile of 1.5 - 2.0 mils or other stringent recommendations from paint manufacturer. Pickling, complying with SSPC-SP 8, may be substituted for Near White Blast in areas as determined by the Engineer. Priming shall follow sandblasting before any evidence of corrosion occurs, before nightfall and before any moisture is on the surface.

5. Field surface preparation of small, isolated areas such as field welds, repair of scratches, abrasions or other marks to the shop prime or finish shall be cleaned by

power tools in accordance with SSPC-SP 3, or in difficult and otherwise inaccessible areas by hand cleaning in accordance with SSPC-SP 2 and spot primed.

6. All coated surfaces shall be cleaned prior to application of successive coats. All non ferrous metals not to be coated shall be cleaned. This cleaning shall be done in accordance with SSPC-SP 1, Solvent Cleaning.

7. All shop coated surfaces shall be protected from damage and corrosion before and after installation by treating damaged areas immediately upon detection. Abraded or corroded spots on shop coated surfaces shall be prepared in accordance with SSPC-SP 2, Hand Tool Cleaning and then touched up with the same materials as the shop coat.

8. All shop coated surfaces which are faded, discolored, or which require more than minor touch up, in the opinion of the Engineer, shall be repainted. Cut edges of galvanized sheets, electrical conduit, and metal pipe sleeves, not to be finish painted, shall be cleaned in accordance with SSPC-SP 1, Solvent Cleaning and primed with zinc dust zinc oxide metal primer.

C. Concrete Surfaces

1. Concrete surfaces are to be cured for at least 28 days prior to surface preparation, unless coatings are recommended for application over green concrete surfaces.

2. Test concrete for moisture content, pH and salts using test method recommended by the paint manufacturer. Do not begin surface preparation, or painting until moisture content is acceptable to manufacturer.

3. Non-submerged concrete and masonry surfaces to be painted shall be prepared by removing efflorescence, chalk, dust, dirt, grease, oil, form coating, tar and by roughening to remove glaze. All surfaces shall be repaired prior to commencement of the coating operation.

4. Concrete immersion surfaces that are to be coated shall be prepared in accordance to SSPC-SP13/NACE No. 6 to remove all laitance, curing compounds, hardeners, sealers, and other contaminants, and to provide a minimum surface profile. Refer to manufacturer’s recommendation for specific coating being applied and adhere to ICRI Concrete Surface Preparation Profiles (CSP 1-10) when reviewing concrete surface preparation. Areas of concrete which contain bug holes or voids shall be filled with the manufacturer's approved filler material.

D. Exposed Pipe, Valves and Pumps

1. Bituminous coated pipe shall not be used in exposed locations. Pipe which shall be exposed after project completion shall be primed in accordance with the requirements herein. Any bituminous coated ferrous pipe which is inadvertently installed in exposed locations shall be sandblasted to SSPC SP 5 White Metal before priming and painting.

2. After installation and prior to finish painting, all exterior, exposed flanged joints shall have the gap between adjoining flanges and gaps between the pipe wall and threaded-on flanges sealed with a single component Thiokol caulking to prevent rust stains.

E. PVC Pipe Surfaces

1. All pipe surfaces shall be cleaned and lightly sanded before painting.

F. Existing Painted Surfaces

1. Totally remove existing paint when: surface is to be submerged in a severe environment, paint is less than 75% intact, brittle, eroded or has underfilm rusting.

2. Surfaces which are greater than 75% intact require removal of failed paints and then spot primed. Spot priming is in addition to coats specified.

3. Remove surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers.

4. Clean and dull glossy surfaces prior to painting in accordance with the manufacturer's recommendations.

5. Check existing paints for compatibility with new paint system. If incompatible, totally remove existing paint system or apply a barrier coat recommended by the paint manufacturer. Remove existing paints of undetermined origin. Prepare a test patch of approximately 3 square feet over existing paint. Allow test patch to dry thoroughly and test for adhesion. If proper adhesion is not achieved remove existing paint and repaint.

3.02 SHOP PAINTING

A. All fabricated steel work and equipment shall receive at the factory at least one shop coat of prime paint compatible with the paint system required by these Specifications. The Contractor shall coordinate all shop priming to ensure compatibility with paint system specified. Surface preparation prior to shop painting shall be as specified herein. Finish coats may be applied in the shop if acceptable to the Engineer. All shop painted items shall be properly packaged and stored until they are incorporated in the Work. Any painted surfaces that are damaged during handling, transporting, storage or installation shall be cleaned, scraped, and patched before field painting begins so that Work shall be equal to the original painting received at the shop. Equipment or steel Work that is to be assembled on the site shall likewise receive a minimum of one shop coat of paint at the factory. Surfaces of exposed members that will be inaccessible after erection shall be prepared and painted before erection.

B. The Contractor shall specify the shop paints to be applied when ordering equipment in order to assure compatibility of shop paints with field paints. The paints and surface preparation used for shop coating shall be identified on shop drawings submitted to the Engineer for review. Shop paint shop drawings will not be reviewed until the final project paint system has been submitted by the Contractor and reviewed by the Engineer.

C. Shop finish coats may be the standard finish as ordinarily applied by the manufacturer if it can be demonstrated to the Engineer that the paint system is equal to and compatible with the paint system specified. However, all pumps, motors and other equipment shall receive at least one field applied finish coat after installation.

3.03 PAINT SCHEDULE

A. The Contractor shall adhere to this paint schedule, providing those paints named or equal. DFT shall mean the minimum dry film thickness per application measured in mils. Products are referenced by numbers listed in table 09900-1 in Article 2.01 of this Section entitled "Product Listing." The paint schedule identifies the minimum DFT required per coat. If the Contractor does not achieve the specified DFT range in a single coat, he shall provide additional coats as necessary at no additional cost to the City.

B. Steel Sheet Piling

1. Steel sheet piling used for seawalls

a. Surface preparation per SSPC-SP 10 / NACE No. 2 Near White Metal Blast Cleaning with a minimum angular anchor profile of 1.5 – 2.0 mils or other stringent recommendations from paint manufacturer.

b. Apply organic zinc-rich primer to all surfaces of sheet piling.

c. Apply coal tar epoxy to all surfaces of sheet piling.

Application	No.	Description	DFT
First - 1 coat	121	Organic Zinc-Rich Primer	3.0 – 3.5
Second - 1 coat	106	Coal Tar Epoxy	8.0 - 12.0
Finish - 1 coat	106	Coal Tar Epoxy	8.0 - 12.0
		Min. Total	19.0 Mils

C. Metal Surfaces, Atmospheric (Exterior) Exposure

1. Metal surfaces exposed to the atmosphere that do not come into contact with corrosive atmosphere including the following types of surfaces shall be painted as described below:

a. Above ground piping, valves, pipe supports, and other mechanical assembly

b. Miscellaneous steel shapes, angles, etc.

c. Exposed surfaces of conduit, ductwork, etc.

d. Exposed non-factory painted surfaces of electrical and instrumentation equipment, etc.

Ferrous Metal

Application	No.	Description	DFT
First -1 coat	104	Polyamidoamine Epoxy Primer	3.0 - 5.0
Second - 1 coat (*)	105	Polyamidoamine Epoxy	2.0 - 3.0
Finish - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	10.0 Mils

(*) Broadcast 50 mesh silica sand while still wet over entire digester cover area.

Non-Ferrous Metal

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	6.0 Mils

Galvanized

Application	No.	Description	DFT
Spot Repair	115	Aromatic Urethane / Epoxy Zinc-Rich (spot)	2.5 - 3.5
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	6.0 Mils

D. Metal Surfaces, Submerged Exposure

1. Metal surfaces that are submerged shall be painted as described below:

a. Pumps, motors, process equipment, and associated hardware, including but not limited to discharge column and elbow, brackets, formed suction intake, etc.

b. Intake structure bar screen trash rake

c. Manatee grates

Application	No.	Description	DFT
Stripe coat	119	Cycloaliphatic Amine Epoxy	3.0 – 5.0
First – 1 coat	119	Cycloaliphatic Amine Epoxy	4.0 – 6.0
Finish - 1 coat	119	Cycloaliphatic Amine Epoxy	4.0 – 6.0
		Min. Total (excluding stripe coat)	10.0 Mils

E. Ductile Iron Pipe, Exterior or Interior Exposure

1. Ductile iron pipe exterior or interior exposure shall receive the following types of paint:

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	6.0 - 10.0
Finish - 1 coat	110	Aliphatic Acrylic Polyurethane	3.0 - 5.0
		Min. Total	12.0 Mils

F. PVC Pipes, Exterior or Interior Exposure

1. PVC pipes, valves, and accessories, shall receive the following types of paint:

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Finish - 1 coat	110	Aliphatic Acrylic Polyurethane	3.0 - 4.0
		Min. Total	6.0 Mils

G. New Concrete, Masonry and Stucco, Exterior Exposure

1. The exterior above grade concrete, masonry, and stucco surfaces of all new structures shall receive the following:

   a. Electrical equipment platform

   b. All other exterior exposure concrete surfaces, including but not limited to steps, landings, walkways, slabs, housekeeping pads, etc.

   Surface preparation: Surface shall be clean and dry without efflorescence, chalk, dust, dirt, grease, oil, form coating, and tar. Allow concrete to cure for 28 days.

Application	No.	Description	DFT
Block Filler (*)	102	Water Based Epoxy Block Filler	100-150 SF/Gal
Primer (**)	114	Acrylic Concrete Primer	300-400 SF/Gal
First - 1 coat	111	Modified Waterborne Acrylate	4.0 - 6.0
Finish - 1 coat	111	Modified Waterborne Acrylate	4.0 - 6.0
		Min. Total	10.0 Mils

(*) Block filler only to be used on new CMU
(**) Concrete primer for non-CMU applications

H. Existing or New Concrete Surfaces, Submerged Exposure:

1. Existing or new concrete surfaces submerged in stormwater, including but not limited to the following types of surfaces, shall be painted as described below:

   a. Interior of pump station wet well, intake and discharge structures

   b. Interior of intake structures

   c. Interior of effluent boxes

Application	No.	Description	DFT
First - 1 coat	106	Epoxy, coal tar, thinned	6.0 - 8.0
Finish - 1 coat	106	Epoxy, coal tar, (Hi-Build)	14.0 – 20.0
		Min. Total	20.0 Mils

I. Concrete Surfaces, Buried Exposure:

1. The exterior surfaces of cast-in-place concrete walls and precast concrete structures from the top of the footing up to six inches below finished grade shall be painted as follows:

a. Exterior of pump station wet well, intake and discharge structures

Application	No.	Description	DFT
First - 1 coat	106	Epoxy, coal tar, thinned	6.0 - 8.0
Finish - 1 coat	106	Epoxy, coal tar, thinned	14.0 – 20.0
		Min. Total	20.0 Mils

J. Concrete Surfaces, Intermittent Submerged Exposure:

1. Existing or new concrete surfaces intermittently submerged in stormwater, including but not limited to the following types of surfaces, shall be painted as described below:

a. Seawall concrete cap

Application	No.	Description	DFT
First - 1 coat	119	Cycloaliphatic Amine Epoxy	6.0 – 10.0
Finish - 1 coat	119	Cycloaliphatic Amine Epoxy	6.0 – 10.0
		Min. Total	16.0 Mils

3.04 PAINTING

A. Application: All paint shall be applied by experienced painters with brushes or other applicators acceptable to the Engineer.

1. Paint shall be applied without runs, sags, thin spots, or unacceptable marks. Paints shall be applied at the rate specified by the manufacturer to achieve the minimum dry mil thickness required. Additional coats of paint shall be applied, if necessary, to obtain thickness specified.

2. Paint shall be applied with spraying equipment only on those surfaces approved by the Engineer. If the material has thickened or must be diluted for application by spray gun, each coat shall be built up to the same film thickness achieved with undiluted brushed on material. Where thinning is necessary, only the products of the particular manufacturer furnishing the paint shall be used; and all such thinning shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the Engineer.

3. Surfaces not accessible to brushes or rollers may be painted by spray by dauber or sheepskins and paint mitt. If any of these methods is to be used, it shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the Engineer.

B. Drying Time: A minimum of twenty four hours drying time shall elapse between applications of any two coats of paint on a particular surface unless shorter time periods are a requirement of the manufacturer or specified herein. Longer drying times shall be required for abnormal conditions as defined by the manufacturer.

C. Weather Restrictions: No painting whatsoever shall be accomplished in rainy or excessively damp weather when the relative humidity exceeds 85 percent, or when the general air temperature cannot be maintained at 50 degrees Fahrenheit or above throughout the entire drying period. No paint shall be applied when it is expected that the relative humidity will exceed 85 percent or that the air temperature will drop below 50 degrees Fahrenheit within 18 hours after the application of the paint.

1. Dew or moisture condensation should be anticipated; and if such conditions are prevalent, painting shall be delayed until midmorning to be certain the surfaces are dry. The day's painting shall be completed well in advance of the probable time of day when condensation will occur.

D. Inspection of Surfaces

1. Surface preparation and every field coat of priming and finishing paint shall be inspected by the Engineer or his/her authorized representative before the succeeding coat is applied. The Contractor shall follow a system of tinting successive paint coats so that no two coats for a given surface are exactly the same color. Areas to receive black protective coatings shall in such cases be tick marked with white or actually gauged as to thickness when finished.

2. Before application of the prime coat and each succeeding coat, any defects or deficiencies in the prime coat or succeeding coat shall be corrected by the Contractor before application of any subsequent coating.

3. Samples of surface preparation and of painting systems shall be furnished by the Contractor to be used as a standard throughout the job, unless omitted by the Engineer.

4. When any appreciable time has elapsed between coatings, previously coated areas shall be carefully inspected by the Engineer, and where, in his opinion, surfaces are damaged or contaminated, they shall be cleaned and recoated at the Contractor's expense. Recoating times of manufacturer's printed instructions shall be adhered to.

5. Coating thickness shall be verified by the use of a dry film thickness digital gauge. Gauge shall be Elcometer 456 or equal and shall be properly calibrated. Coating thickness on non-metal surfaces shall be verified by the use of an ultrasonic gauge. Ultrasonic gauge shall be Positector 200 or equal. Gauges shall include the entire range of coating thicknesses required in this section.

6. The Contractor shall provide free of charge to the Engineer two new digital dry film gauges and two wet film gauges to be used to inspect coating by Engineer and Contractor. One gauge may be used by Contractor and returned each day to the Engineer. Engineer will return gauges to Contractor at completion of job.

7. Coatings shall pass a holiday detector test.

8. Determination of Film Thickness: Randomly selected areas, each of at least 107.5 contiguous square feet, totaling at least 5% of the entire control area shall be tested. Within this area, at least 5 squares, each of 7.75 square inches, shall be randomly selected. Three readings shall be taken in each square, from which the mean film thickness shall be calculated. No more than 20 percent of the mean film thickness measurements shall be below the specified thickness. No single measurement shall be below 80 percent of the specified film thickness. Total dry film thickness greater than twice the specified film thickness shall not be acceptable. Areas where the measured dry film thickness exceeds twice that specified shall be completely redone unless otherwise approved by the Engineer. When measured dry film thickness is less than that specified additional coats shall be applied as required.

9. Holiday Testing: Holiday test painted ferrous metal surfaces which will be submerged in water or other liquids, or surfaces which are enclosed in a vapor space in such structures. Mark areas which contain holidays. Repair or repaint in accordance with paint manufacturer's printed instructions and retest.

    a. Dry Film Thickness Exceeding 20 Mils: For surfaces having a total dry film thickness exceeding 20 mils: Pulse-type holiday detector such as Tinker & Rasor Model AP-W, D.E. Stearns Co. Model 14/20, shall be used. The unit shall be adjusted to operate at the voltage required to cause a spark jump across an air gap equal to twice the specified coating thickness.

    b. Dry Film Thickness of 20 Mils or Less: For surfaces having a total dry film thickness of 20 mils or less: Tinker & Rasor Model M1 non-destructive type holiday detector, K-D Bird Dog, shall be used. The unit shall operate at less than 75-volts. For thicknesses between 10 and 20 mils, a non-sudsing type wetting agent, such as Kodak Photo-Flow, shall be added to the water prior to wetting the detector sponge.

E. Special Areas

1. All surfaces which are to be installed against concrete, masonry etc., and will not be accessible for field priming and/or painting shall be back primed and painted as specified herein, before erection. Anchor bolts shall be painted before the erection of equipment and then the accessible surfaces repainted when the equipment is painted.

F. Special attention shall be given to insure that edges, corners, crevices, welds and rivets receive a film thickness equivalent to that of the adjacent painted surfaces.

G. Safety

1. Respirators shall be worn by persons engaged or assisting in spray painting. The Contractor shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the Work.

H. Quality Workmanship

1. The Contractor shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect the Work whenever such covering is necessary, or if so requested by the City. Any unwanted paint shall be carefully

removed without damage to any finished paint or surface. If damage does occur, the entire surface, adjacent to and including the damaged area, shall be repainted without visible lap marks and without additional cost to the City.

I. Defective/Damaged Coating System

1. Painting found defective shall be scraped or sandblasted off and repainted as the Engineer or his/her authorized representative may direct. Before final acceptance of the Work, damaged surfaces of paint shall be cleaned and repainted as directed by the Engineer or his/her representative.

2. If the coating system is determined to require repair/field touch up, the Contractor shall strictly adhere to the approved repair plan procedure per article 1.05, D. Contractor shall notify the Engineer prior to commencing any surface preparation and coating repair in order to verify the affected zone. Painting shall not be performed if adverse conditions, such as rain or rising seawater, are expected.

J. Any pipe scheduled to be painted and having received a coating of a tar or asphalt compound shall be painted with two coats or "Intertol Tar Stop", "Tnemec Tar Bar" or equal before successive coats are applied in accordance with the paint schedule.

3.05 SCHEDULE OF COLORS

A. All colors shall be as designated by the Engineer at the shop drawing review. The Contractor shall submit color samples including custom color choices as required to the Engineer as specified in Article 1.05 of this Section. The Contractor shall submit suitable samples of all colors and finishes for the surfaces to be painted, or on portable surfaces when required by the Engineer. The Engineer shall decide upon the choice of colors and other finishes when alternates exist. No variation shall be made in colors without the acceptance from the City. Color names and/or numbers shall be identified according to the appropriate color chart issued by the manufacturer of the particular product in question.

B. All above ground water main piping shall be painted white with blue longitudinal striping.

C. All underground water main piping shall have continuous 4” blue longitudinal stripe.

D. All above ground force main piping shall be painted green.

3.06 OSHA SAFETY COLORS

A. Items listed in ANSI Z53.1-1971, Section 2.1 shall be painted ANSI Red. In general, these items shall include fire protection equipment and apparatus; wall mounted breathing apparatus, danger signs and locations; and stop bars, buttons or switches. In addition all hose valves and riser pipes, fire protection piping and sprinkler systems, and electrical stop switches shall be painted ANSI Red.

B. Items listed in ANSI Z53.1-1971, Section 2.3 shall be painted ANSI Yellow. Yellow shall be the basic color for designating caution and for marking physical hazards such as striking against, stumbling, falling, tripping, and "caught in between". In addition, an 8-inch wide strip on the top and bottom tread of stairways shall be coated.

3.07 WORK IN CONFINED SPACES

A. The Contractor shall provide and maintain safe working conditions for all employees. Fresh air shall be supplied continuously to confined spaces through the combined use of existing openings, forced draft fans, or by direct air supply to individual workers. Paint fumes shall be exhausted to the outside from the lowest level in the contained space.

B. Electrical fan motors shall be explosion proof if in contact with fumes. No smoking or open fires will be permitted in, or near, confined spaces where painting is being done.

3.08 CLEANING

A. The Work area shall be at all times kept free from accumulation of waste material and rubbish caused by the Work. At the completion of the painting, all tools, equipment, scaffolding, surplus materials, and all rubbish around the Work areas shall be removed and the Work left broom clean unless otherwise specified.

- END OF SECTION -

CAM #25-0925
Exhibit 1A
Page 30 of 2050

SECTION 17190 UNINTERRUPTIBLE POWER SYSTEMS

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish, test, install and place in satisfactory operation all uninterruptible power systems, with all spare parts, accessories, and appurtenances as herein specified and as shown on the Drawings.

B. One UPS shall be provided for each programmable logic controller (PLC) and its appurtenant equipment provided under this Contract. However, courtesy receptacles in PLC cabinets shall not be powered by the UPS.

C. UPS's shall be mounted in or near enclosures containing digital hardware, unless otherwise specified or shown on the Drawings, as follows:

1. UPS's for control panels containing PLCs shall be mounted either within the cabinet or in an adjacent cabinet of suitable environmental rating.

2. Where the UPS is mounted within a dedicated enclosure, that enclosure shall be properly sized for heat dissipation and all other applicable requirements as specified in Section 17500 and its subordinate Sections.

3. Where the UPS is mounted within the PLC cabinet, it shall not interfere with access to other equipment or wiring within the panel (i.e., it shall not be necessary to move or remove the UPS to remove or service other panel-mounted equipment). For floor-mounted PLC cabinets with bottom wiring access (including those cabinets with legs), the UPS shall be placed on a dedicated shelf within the cabinet.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 17000 – Control and Information System Scope and General Requirements

B. Section 17100 – Control and Information System Hardware, General

C. Section 17120 – Programmable Logic Controllers

1.03 SUBMITTALS

A. The Contractor shall submit UPS sizing calculations for all UPS's furnished under this Contract in accordance with Section 17030 - Control and Information System Submittals.

PART 2 – EQUIPMENT

2.01 UNINTERRUPTIBLE POWER SYSTEMS

A. Each UPS shall consist of a DIN rail mounted UPS module and optional external battery modules as required to meet backup run time requirements.

B. UPS's shall be line-interactive type. Each UPS shall be sized to match the maximum power requirements of the associated digital equipment, control panel power supplies and accessories. Under normal operation, the AC power shall be converted to DC. The DC power from the battery charger shall supply an inverter and maintain the battery module at full charge. The AC output from the inverter shall be fed to the associated digital equipment power supply unit and/or other equipment power supplies as appropriate. Upon loss of the AC supply, the inverter shall continue to supply normal power to the device, drawing DC from the batteries.

C. Loss of AC power shall be monitored on the line side of the UPS and reported via normally closed (fail safe) unpowered contacts to the associated PLC/RTU.

D. Each UPS shall meet the following requirements:

1. Input voltage shall be 117 VAC, single phase, 60 Hz.

2. Voltage regulation shall be +/-5 percent for line and load changes.

3. The output frequency shall be phase-locked to the input AC line on AC operation and shall be 60 hertz +/-0.5 percent when on battery operation.

4. The batteries shall be of the sealed, lead acid or lead calcium gelled electrolyte type, or VRLA absorbed glass mat (AGM) type. The battery modules shall have a minimum full load backup time of 2.5 minutes.

5. A status monitoring and control panel shall be provided and shall include the following:

   a. Status indicating lights for both normal and abnormal conditions.

   b. Individual alarm contacts that shall close upon loss of the AC line, low battery level or operation of the static transfer switch. Contacts shall be wired to the closest discrete input subsystem. Alternatively, an RS-232 or USB port shall provide UPS status to an operator workstation. All required interface software and hardware shall be provided.

   c. Circuit breaker for the AC input.

6. EMI/RF noise filtering.

7. Surge protection shall be provided on the AC input circuit, which shall have a UL TVSS clamping voltage rating of 400 V with a <5 ns response time.

E. UPS systems shall be model SolaHD SDU850B with Ethernet communication card as manufactured by Emmerson, or Engineer approved equal.

PART 3 – EXECUTION

3.01 REQUIREMENTS

A. Refer to Section 17000, Part 3 of the Specifications.

- END OF SECTION -

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB No. 461

TITLE: Victoria Park Stormwater Improvements

ADDENDUM NO.2

DATE: 07/3/2025

This addendum is being issued to: Revise Drawing Files, Revise Specifications, and Revise Appendix E - WIFIA Program Borrower Guide to Federal Requirements, November 2022 to include WIFIA Public Interest Waiver, Update Section Special Conditions, Subsection 08, Revise Answered Q & A and Extends Bid Close Date.

1. **Revisions to Drawings, revisions clouded**
    a. DT-01 Standard Details – Sheet 1
    b. DT-02 Standard Details – Sheet 2

2. **Revisions to Specifications**
    a. 01025 - Measurement and Payment
        i. Items 26 through 30 – Revised language
        ii. Item 31 – Revised language
        iii. Item 40 and 41 – Revised language
        iv. Item 46 – Revised language
        v. Item 47 – Revised language
        vi. Item 48 and 49 – Revised language
        vii. Item 50 through 53 – Revised language
        viii. Item 54 – Revised language
    b. 02015 - Mobilization and Demobilization- Revised language
    c. 02314 - Vibration and Noise Monitoring
        i. Paragraph 1.01A – Revised language
    d. 02665 - Cured-in-Place Pipe Lining
        i. Paragraph 1.08.B.1 – Revised language
        ii. Paragraph 3.02 – Revised language
        iii. Paragraph 3.07.A and 3.07.B – Revised language
    e. 02723 - Stormwater Pipe Cleaning and Internal TV Inspection
        i. Paragraph Part3.B – Revised language

3. **Exhibit 1 - WIFIA Public Interest Waiver**:
    Insertion of additional document to Exhibit 1

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

4. Update Special Conditions, Subsection 08

Change From

~~**08. SPECIFIC EXPERIENCE REQUIRED**~~

~~The following expertise is required to be considered for this Contract. Specific references attesting to this expertise must be submitted with the bid response.~~

~~The contractor shall have previous construction experience in constructing: stormwater drainage pipe ranging from 12 inches to 42 inches, cured in place pipe (CIPP) lining, and water & sewer main pipe installation ranging from 6 inches to 12 inches in the State of Florida within the last five (5) years. Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.~~

~~**NOTE: REFERENCES SHALL NOT INCLUDE CITY OF FORT LAUDERDALE EMPLOYEES OR WORK PERFORMED FOR THE CITY. THE CITY IS ALSO INTERESTED IN WORK EXPERIENCE AND REFERENCES FROM ENTITIES OTHER THAN THE CITY OF FORT LAUDERDALE.**~~

~~***By signing this bid solicitation, contractor is affirming that this expertise will be provided for this Contract at no additional charge.***~~

Change To

08. **SPECIFIC EXPERIENCE REQUIRED**

The following expertise is required to be considered for this Contract. Specific references attesting to this expertise must be submitted with the bid response.

The contractor shall have previous construction experience in constructing: stormwater drainage pipe ranging from 12 inches to 42 inches, cured in place pipe (CIPP) lining, water & sewer main pipe installation ranging from 6 inches to 12 inches, and seawalls using sheet pile installation (minimum depth of 30 feet) in the State of Florida within the last five (5) years. Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

NOTE: REFERENCES SHALL NOT INCLUDE CITY OF FORT LAUDERDALE EMPLOYEES OR WORK PERFORMED FOR THE CITY.

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

THE CITY IS ALSO INTERESTED IN WORK EXPERIENCE AND REFERENCES FROM ENTITIES OTHER THAN THE CITY OF FORT LAUDERDALE.

By signing this bid solicitation, contractor is affirming that this expertise will be provided for this Contract at no additional charge.

5. **Revisions to Answered Q & A**
   a. **Question**: CIPP specifications require calculations to be stamped by a P.E. registered in the State of Delaware. Please confirm that this should be the State of Florida.

      Previous Response: The required calculations shall be signed and sealed by a Professional Engineer registered in the State of Florida.

      Updated Response: Technical Specification Section 02665, Paragraph 1.08.B.1 was revised accordingly. **Please refer to Addendum No. 2 Attachment.**

   b. **Question**: Can the Owner please identify a location for the disposal of sand/debris from the pipe cleaning operations?

      Previous Response: Prior to any pipe cleaning activities, the awarded Contractor will need to submit a disposal plan for any removed sand and debris for review and approval by the City.

      Updated Response: Technical Specification Section 01025, Items 46 to 49 and Section 02723, Paragraph Part3.B were revised accordingly. **Please refer to Addendum No. 2 Attachment.**

   c. **Question:** Standard test parameters identified in ASTM 1216 for pipe diameters greater than typically 12" will use plate samples instead of PVC samples. Please confirm that this is acceptable for the project sampling of installed CIPP.

      Previous Response: Confirmed. Plate samples will be acceptable for pipe diameters greater than 12-inch

      Updated Response: For every two thousand five hundred (2,500) lineal feet of liner installed, two (2) flat plate samples shall be processed and tested. For pipe diameters less than 18 inches, restrained end samples may also be utilized. The CIPP physical properties shall be tested in accordance with ASTM F1216, Section 8, using either allowed sampling method. Technical Specification Section 02665,

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

Paragraph 3.07.A and 3.07.B was revised accordingly. **Refer to Addendum No. 2 Attachment.**

d. **Question**: Please confirm that the project is subject to Build America, Buy America (BABA) requirements in addition to AIS, as outlined in Exhibit 1 – WIFIA Program Borrower Guide to Federal Requirements.

Previous Response: All bidders are required to conform to the requirements of Exhibit 1 - WIFIA Program Borrower Guide to Federal Requirements

Updated Response: **Refer to Addendum No. 2 Attachment** for the WIFIA waiver. Design planning for this project was initiated prior to May 14, 2022. BABA requirements are waived. AIS requirements are NOT waived.

6. Extends Bid Close Date.

- Bid Close Date Extended to **Tuesday July 15, 2025 @ 2:00 PM**

All other terms, conditions and specifications remain unchanged.

Paulette Hemmings Turner
Snr. Purchasing Specialist

Company Name: _____
(Please print)

Bidder's Signature: _____

Date: _____

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 THE REQUIREMENT

A. Payment for various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor operations and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenance items of work.

B. Payment for the various items of the Bid Schedule shall constitute full compensation for Contractor's superintendent at the job site full-time during construction, for furnishing and installing all pipe and structures complete in place including but not limited to bends, tees, outlets, fittings, blind flanges and specials, including connections to existing pipelines shown on the Drawing; including surveying both horizontal and vertical control for construction of the roadways, structures, pipeline and appurtenances; including all earthwork, excavation as shown on the Drawing, removal and disposal of waste, unsuitable and excess material, furnishing and installing pipe bedding material, all backfill and compaction of native material, and dewatering as required; including potholing to verify locations of existing utilities in advance of construction; the restoration of interfering portions of existing service and utility lines that are not included in other bid items and shown on the Drawing, including replacement of sewer lines with ductile iron pipe where the minimum vertical clearances are not met for the sewer line shown; restraint of pipe shown on the Drawing and grouting of pipe joints; including providing the water for pressure testing, cleaning the pipe and disinfection (for potable water mains), and disposal of the water as required when completed; furnishing, installation, and removal of test heads, cleanup; and restoration of all improvements incidental to construction for which there are no other bid items; including but not limited to, sprinkler systems, drainage systems, guardrails, landscaping, fences, curbs and gutters, and all other work not included in other bid items.

C. Payment shall also include providing the necessary equipment and manpower to pothole and verify depths and locations of existing utilities a minimum of two weeks ahead of construction to avoid conflicts with the design alignment and grade of the proposed infrastructure. Conflicts with utilities shown on the Drawing which result from the Contractor's negligence to pothole sufficiently ahead of construction (a minimum of two days ahead of construction of the pipeline or as approved by the Engineer) shall be resolved by the Contractor at no additional cost to the Owner. Unmarked utilities damaged during construction will be paid under unit prices in the Bid Package for similar work, if and as approved by the Engineer.

D. Payment for all bid items shall constitute full compensation for the complete installation of each bid item including but not limited to excavation, dewatering, backfill and compaction. The work shall include for all bid items to be completed, tested and ready for acceptance by the appropriate government agency.

E. No separate payment for pavement restoration will be made unless specifically shown on the plans or directed by the Engineer. All bid items shall include pavement restoration.

F. The Contractor's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the contractor feel that the cost for any item of Work has not been established by the Schedule of Prices Bid for this Section, it shall include the cost for that Work in some other applicable bid item, so that its proposal for the project does reflect its total price for completing the Work in its entirety.

1.02 MEASUREMENT - GENERAL

A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and Specifications as specified in National Institute of Standards and Technology, Handbook 44.

B. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.

C. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawing. Variations of 1 foot or less will be ignored, and profiles shown on Drawing will be used for determining quantities. Variations greater than one foot will be considered in adjusting quantities.

D. Units of measure shown on Bid Form shall be as follows, unless specified otherwise. All methods of measurement shall be approved by the City.

Item	**Method of Measurement**
AC	Acre – Field Measure / Calculation / Survey
AL	Allowance
CY	Cubic Yard – Field Measure / Vehicle Measure by Volume
EA	Each – Field Count
GAL	Gallon – Field Measure
HR	Hour

LB	Pound(s) – Weight Measure
LF	Linear Foot - Field Measure
LOT	Each Lot
LS	Lump Sum - Unit is one / No Measurement
SY	Square Yard – Field Measure
TON	Ton – Weight Measure by Scale (2,000 pounds)

1.03 SCHEDULE OF PRICES BID

A. General Payment Items

- Item 1 – All Work Associated with the Mobilization and Demobilization (7.5%): The Contractor may request payment for this bid item after the initial Notice to Proceed has been issued. This bid item is limited to 7.5% of the total bid price. Any amount in excess of 7.5% will be moved to the last line item as deemed necessary and created by Procurement Services. However, the total bid amount will not change. The 7.5% ceiling on this bid item is not responsiveness, just an instruction on the amount the CITY will pay for work associated with Mobilization and Demobilization. Payment for Mobilization will be made at the lump sum price named in the Item Response Form. An initial lump sum partial payment of 40% of the line bid item shall be made upon issuance of the Notice to Proceed for mobilization. A final lump sum payment of the remaining 60% for demobilization will be made upon the original or amended Substantial Completion contract time stated in the original contract, amended contract, change order, another notice to proceed, or any other permissible document utilized to extend the Substantial Completion contract time. The amount in excess of 7.5% will be paid on the last payment application submitted by the Contractor.

- Item 2 – All Work Associated with the Maintenance of Traffic: The lump sum price for this item shall be full compensation for all labor, equipment, material, and work required for maintenance of traffic in accordance with FDOT Standards and/or Broward County and/or the City of Fort Lauderdale. This item includes, but is not limited to, preparation and submittal of maintenance of traffic plans (MOTs), addressing comments regarding MOTs from agencies with jurisdiction, providing personnel as required to direct traffic (flaggers, crossing guards, local police, etc.), all temporary signage and striping, message boards, barricades, temporary barrier walls, drums, cones, providing signs, lights, installing temporary fencing and walkways as required to maintain pedestrian traffic, installing temporary steel plates for vehicular traffic and all other work incidental to the maintenance of traffic as required by FDOT Standards and/or Broward County and/or the requirements of the City of Fort Lauderdale and the Contract Documents. Payment for Maintenance of Traffic shall be made in equal monthly amounts during the duration of the Contract time.

- Item 3 – All Work Associated with the GIS Database Additions: The lump sum price for this bid item shall be full compensation for the preparation and addition of the proposed infrastructure data to the existing City GIS Database in accordance with the Contract Documents. This item includes, but is not limited to all necessary adjustments to the implemented data to create a seamless

addition to the existing infrastructure. Payment for this item shall be made in full upon approval by the City of Fort Lauderdale for this work. No partial payments shall be made. This item includes all work not defined in other bid items for the Project.

- Item 4 – All Work Associated with the As Built/Record Drawings: The lump sum price for this bid item shall be full compensation for preparation, submittal, and approval of As-Built/Record Drawings, furnished in accordance with the Contract Documents. For all improvements, the CONTRACTOR shall conform to the City of Fort Lauderdale standards and requirements. See Section 01320 for a complete description. Partial payments for this item shall be made as follows:

Milestone	Allowable % of Lump Sum for As Built/Record Drawings
Submittal of Draft Complete As-Built/Record Drawings to Engineer	25
Engineer's Approval of As-Built/Record Drawings	75
Final Acceptance of As-Built/Record Drawings by City	100

- Item 5 – All Work Associated with the Prevention, Control, & Abatement of Erosion and Water Pollution: The lump sum price indicated for this bid item shall be full compensation for all labor, equipment, and material necessary for preparation, submittal, approval, and implementation of the NPDES Permit Application (Notice of Intent and Notice of Termination), reporting by a person holding a certification as an FDEP NPDES Construction Site Inspector, preparing a Stormwater Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMP) and environmental pollution protection throughout construction as outlined in the Contract Documents and required by the City. Payment for this item shall be made in equal monthly payments throughout the duration of the project.

- Item 6 – Provide Vibration Monitoring Inspection Consultant (VMC) and Noise Monitoring Consultant (NMC): The lump sum price for this item shall be full compensation for all labor, equipment, and material for all work necessary and required for to retain the services of a Vibration Monitoring and Inspection Consultant (VMC) and a Noise Monitoring Consultant (NMC). This item includes, but is not limited to, all general, labor, and equipment required for vibration and noise inspection and monitoring services in accordance with the Contract Documents.

B. Pump Station

- Item 7 – Stormwater Pump Station: The lump sum price for this item shall be full compensation for all labor, equipment, and material for all work necessary for the construction of the Stormwater Pump Station as required in the Contract Documents. This item includes, but is not limited to, all general, civil, mechanical, structural, electrical, instrumentation and control, testing of all materials and

equipment associated with the pump station construction, startup services, and sitework required for a complete and operable system. This item includes the furnishing and installation of all utility services and appurtenances associated to the pump station, including but not limited to potable water, sanitary sewer, yard drain, irrigation, electrical power, and telephone. This item includes the installation pump station outfall pipe, rip rap, embankment stabilization, and other scouring prevention features to protect the canal bed from pump station discharge erosion where required by regulatory agencies and shown on the Contract Drawings.

C. Seawall

- Item 8 – Cantilever Steel Sheet Pile Wall with Concrete Cap: The unit price for this item is the payment, on a linear foot basis, for all materials, labor, equipment, and work necessary and required for the complete installation of a cantilevered steel sheet pile wall with concrete cap. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, surface preparation and application of coating to steel sheet pile wall, installation of cantilevered steel sheet pile wall, concrete cap, termination details at ends, all required temporary bracing, shoring, sheeting, demolition, removal and disposal of existing seawall in accordance with the Contract Documents. This item also includes all noise, vibration, and settlement mitigation measures required in accordance with the Contract Documents.

- Item 9 – Outfall Drainage Pipe Penetration Through Proposed Seawall: The lump sum price indicated for this bid item shall be full compensation for all labor, equipment, material, and work necessary and required for constructing the 42-inch storm drain outfall penetration through the proposed seawall. This item includes, but is not limited to, excavation (including rock), removal of existing wall as required, penetration through proposed wall, installing concrete face, and all other appurtenant work as shown in the Contract Documents associated with the pipe penetration. This item also includes restoring the mudline at the pipe outfall where disturbed from the concrete face construction.

- Item 10 – Furnish and Install FDOT #57 Stone: The unit price for this item is the payment, on a cubic yard basis, for all labor, equipment, material and work required for furnishing and installing FDOT #57 stone as required for a complete installation of the proposed seawall. This item includes the furnishing and placement of FDOT #57 stone between the proposed seawall and the existing seawall as shown in the Contract Documents. This item excludes all FDOT #57 stone used for any other purpose.

D. Drainage

- Item 11 – Remove and Dispose of Existing Storm Drainage Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and material required to remove and dispose of existing drainage structures at all depths. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all

materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, removal and disposal of existing drainage structure, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing, including post-construction testing, and all associated restoration work.

- Item 12 – Remove and Dispose of Existing Storm Drainage Pipe and Exfiltration Trench: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to remove and dispose of existing storm drainage pipes and exfiltration trenches at all depths. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, removal and disposal of existing pipe, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing, including post-construction testing, and all associated restoration work.

- Item 13 – Grout, Cut, Cap, and Abandon Existing Storm Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to grout, cut, cap, and abandon existing storm drain pipes and all depths. This item includes but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, cutting, plugging, grouting, and abandoning of existing pipe, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing, including post-construction testing, and all associated restoration work.

- Item 14 – Grout, Cap, and Abandon Existing Storm Drainage Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and material required to grout, cap, and abandon of existing drainage structures at all depths. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, cutting, plugging, grouting, and abandoning of existing drainage structure, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing,

including post-construction testing, and all associated restoration work.

- Item 15 – Furnish and Install FDOT “Type C" Ditch Bottom Inlet: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install “Type C” ditch bottom inlets at all depths, all in accordance with the Contract Documents.. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, construction and installation of the reinforced concrete ”Type C” Ditch Bottom Inlet, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Item 16 – Furnish and Install FDOT “Type 9” Curb Inlet: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install “Type 9” Curb Inlets at all depths, all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, construction and installation of the reinforced concrete ”Type 9” Curb Inlet, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Items 17 and 18 – Furnish and Install Catch Basins: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install catch basins at all depths, all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of the reinforced concrete catch basins, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Items 19 through 22 – Furnish and Install Manholes: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install manholes, conflict manholes, at all depths, all in accordance with the Contract Documents. This item includes, but is

not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of the reinforced concrete manholes, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, corbel tops, mud work, filter fabric, frames, grates, rims, covers, rain guards, all appurtenant items, and associated restoration work.

- Item 23 – Furnish and Install Outfall Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install outfall structures all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of outfall structure, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Item 24 – Furnish and Install Weir Control Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install weir control structures all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of the reinforced concrete control structure including the concrete weir, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Item 25 – Furnish and Install Concrete Collar for Catch Basin: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install concrete collars for catch basins all in accordance with the Contract Documents. This item includes, but is not limited to, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, removal and disposal of all materials (including unsuitable), removing and disposal of plants, bushes, shrubs, roots, installing temporary bypass pumping and/or providing flow diversion, temporary bracing of existing adjacent structures, compaction,

stabilization of subgrade, formwork, furnishing and setting expansion joint material, concrete, backfilling, disposal of excess material, all appurtenant items and associated restoration work.

- Items 26 through 30 – Furnish and Install Drainage Pipe RCP or HP-PP: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store, and install reinforced concrete pipe or corrugated polypropylene drainage pipe all in accordance with the Contract Documents. The item includes, but it is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, joint material, furnishing and installing pipe bedding and backfill, and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement for payment shall be the linear feet of pipe installed along the horizontal centerline of the pipe in place, not including through structures, all in accordance with the requirements of the Contract Documents. The unit price shall apply to all installations depths as required by the drawings, with no additional compensation for variations in depths.

- Item 31 – Furnish and Install Drainage Pipe Elliptical RCP: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store, and install elliptical reinforced concrete pipe all in accordance with the Contract Documents. The item includes, but it is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, joint material, furnishing and installing pipe bedding and backfill, and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement for payment shall be the linear feet of pipe installed along the horizontal centerline of the pipe in place, not including through structures, all in accordance with the requirements of the Contract Documents. The unit price shall apply to all installations depths as required by the drawings, with no additional compensation for variations in depths.

- Item 32 - Furnish and Install Exfiltration Trench RCP Perforated Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store, and install exfiltration trench including slotted drainage pipe all in accordance with the Contract Documents. The item includes, but it is not limited to, locating, verifying,

and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, perforated drainage pipe, ballast rock, filter fabric, joint material, bedding, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement for payment shall be the linear feet of pipe installed along the horizontal centerline of the pipe in place, not including through structures, all in accordance with the requirements of the Contract Documents. The unit price shall apply to all installations depths as required by the drawings, with no additional compensation for variations in depths.

- Item 33 – Furnish and Install Pollution Retardant Baffles: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install pollution retardant baffles all in accordance with the Contract Documents. This item includes, but is not limited to, furnishing and installing anchor bolts, angle brackets, seals, gaskets, pollution retardant baffles, grout, and any other items required for a complete and satisfactory installation.

- Items 34 through 36 – Furnish and Install Manatee Grate: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install manatee grates all in accordance with the Contract Documents. This item includes, but is not limited to, furnishing and installing anchor bolts, grout, grates, and any other items required for a complete and satisfactory installation.

- Item 37 – Connect Existing Pipe to Proposed Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to connect an existing pipe to a proposed structure all in accordance with the Contract Documents. This line item includes up to two existing pipe connections to a new structure. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, removal and disposal of portions of the existing piping, grouting, construction of the connection, temporary bracing of existing structures, mud work, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work.

- Item 38 – Connect Proposed Pipe to an Existing Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and

materials required to core drill an existing structure and connect a proposed pipe all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, cleaning and desilting and sealing the existing structure, core drilling or removing the existing knockout plug where applicable, grouting, construction of the connection, temporary bracing of existing structures, mud work, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. This items includes new connections to existing structures where no prior openings exist, and replacement or upsizing of existing connections to existing structures.

- Item 39 – Connect Proposed Pipe to Existing Pipe: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to connect a proposed pipe to an existing pipe all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, construction of the connection, including connections between dissimilar piping materials, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work.

- Items 40 and 41 – Line Existing Storm Pipe with C.I.P.P.: This work will be performed, if necessary, as determined by the CCTV inspection report. This work will be measured and paid for at the unit price per linear foot of liner as delineated by the pipe size and depth brackets named in the Bid Schedule. Measurement shall be made based on the horizontal projection of the centerline of the permanently installed liner between drainage structures, measured to the nearest foot from the inside wall of structure to the inside wall of structure for each section lined. Each unit price bid shall include, but not limited to, all necessary or required resident and business notifications, preparation of the existing outfall, including blocking or plugging incoming lines, furnishing and installation of cofferdams or other temporary dewatering measures; installation of access/lining manhole, removal, transportation and disposal of material generated by preparation; post-lining television surveys; chemical joint sealing if necessary; pipe lining; the cost of obtaining a water meter; cleaning; sample collection; material testing, grouting to eliminate infiltration at liner ends; cleanup; documentation and reporting; and all labor, materials and equipment required to provide a complete an acceptable liner installation.

- Items 42 through 45 – Furnish and Install Inline Check Valve: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install inline check valves all in accordance with the Contract Documents. This item includes, but is not limited to, furnishing and installing anchor bolts, rings, seals, gaskets, valves, grout, testing, and any other items required for a complete and satisfactory installation.

E. Maintenance of Existing Drainage

- Item 46 – Heavy Desilt/Water Jetting and CCTV of Existing Outfall Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and materials required to clean and televise the existing stormwater pipe within the project limits. This item includes, but is not limited to, submitting for City approval and executing storage and disposal plan for removed sand and debris prior to cleaning activities, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the sewer lines for clear viewing of the interior surface of the pipe during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks in pipe, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of pipe; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. Measurement for payment for cleaning/televising of drainage pipe will be based upon the number of linear feet of such pipe as determined by measurement along the centerline of the pipe in place, not including through structures. The Contractor shall notify and provide documentation acceptable to the City if contaminated materials are suspected within the pipe.

- Item 47 – Heavy Desilt/Water Jetting and CCTV of Existing Drainage Structure: The unit price for this item shall be full compensation on a per each structure basis for all labor, equipment, and materials required to clean and televise existing stormwater structures within the project limits. This items includes, but is not limited to, submitting for City approval and executing storage and disposal plan for removed sand and debris prior to cleaning activities, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the structures for clear viewing of the interior surface of the structures during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks structures, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of structures; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. The

Contractor shall notify and provide documentation acceptable to the City in the event that contaminated materials are suspected within the structure.

- Items 48 and 49 – Heavy Desilt/Water Jetting and CCTV of Existing Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and materials required to clean and televise the existing stormwater pipe within the project limits. This item includes, but is not limited to, submitting for City approval and executing storage and disposal plan for removed sand and debris prior to cleaning activities, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the sewer lines for clear viewing of the interior surface of the pipe during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks in pipe, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of pipe; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. Measurement for payment for cleaning/televising of drainage pipe will be based upon the number of linear feet of such pipe as determined by measurement along the centerline of the pipe in place, not including through structures. The Contractor shall notify and provide documentation acceptable to the City in the event that contaminated materials are suspected within the pipe.

F. Utility Relocation

- Items 50 through 53 – Offset Existing Water Main with Necessary Fittings: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store and install DIP (cement lined), HDPE, and or PVC, potable water main with the necessary fittings as indicated on the drawings or otherwise directed by the CITY or ENGINEER and described herein for which payment is not provided under other bid items. This item includes the cost of furnishing and installation of pipe, fittings, and restraints. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, installing the new pipe along with all restrained joints, tracer wire installation, joint material, furnishing and installing pipe bedding and backfill, and compacting fill material, placing structural asphalt, temporary pavement markings and striping, pipe flushing, pipe pigging, main disinfection, testing, and surveying and removing and disposing of existing potable water main, wastewater mains, as well as other miscellaneous pipe. This item shall include cost of connecting to existing main, post restraining existing main as needed per City requirements, coordination and shut down of existing water mains, cutting, removal, and

disposal of existing piping, and construction of the connection including all required pipe accessories not included in other bid items. Measurement for payment shall be the linear feet of pipe actually installed as determined by measurement along the horizontal centerline of the pipe in place, through all fittings and valves, in accordance with the requirements of the Contract Documents. For partial payment, the schedule shall be as follows:

1. - 75% of the unit price for pipeline installed, backfilled, and compacted to grade including pavement restoration up to and including the first lift of asphalt.

2- 100% of the unit price upon completion of all testing and temporary restoration.

- Item 54 – Restraint Existing Water Main: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to excavate and restrain the existing water main piping as shown on the drawings, along with restoration as described herein for which payment is not provided under other bid items. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, installing new pipe restraints, joint material, furnishing and installing pipe bedding and backfill, and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement and payment shall be the linear feet of pipe actually restrained as determined by measurement along the horizontal centerline of the existing pipe in accordance with the requirements of the Contract Documents.

- Items 55 through 58 – Furnish and Install Gate Valve: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and material required to furnish, transport, store and install the restrained joint gate valves shown on the drawings. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion or provisions to avoid service interruption, coordination and shut down of existing mains, cutting removal and disposal of existing piping, furnishing and installing valve boxes, valve box extensions, operating nut extensions, restraining devices, concrete collars, and any other items required for a complete and satisfactory installation. This item does NOT include installation of gate valves already paid for under other bid items.

- Items 59 through 62 – Furnish and Install Temporary Line Stop: The unit price for this item shall be per unit basis for all labor and equipment required for temporary line stop type valves used for isolating sections of existing water mains

and sewer mains, including tapping, saddles, fittings, supporting existing utilities and pressure testing. Line Stops included in this item must have the capability to bypass the flow with connection pipe between each other. Material to connect and operate the bypass from one Line Stop to another is included in this item.

- Item 63 – Replace Existing Water Services (Single and/or Double): The unit price for this item shall be full compensation for all labor, equipment, and materials to replace an existing water service connection (single services and double services) to be paid on a per unit basis. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion or provisions to avoid service interruption, reconnection to water main, new water meter box, tapping saddle and valve, corporation stop, service tubing, casing (for long side services), repair clamps, splicing, plugs, plugging existing corporation at main, pipe preparation; removal and disposing of existing water services, as well as other miscellaneous pipe materials; backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. This item will be used for existing water services that must be relocated in order to facilitate the proposed stormwater improvements or existing water services that fail due to no fault of the Contractor. It will be the Contractor's responsibility to replace, at no additional cost to the City, existing water services damaged or broken due to lack of reasonable care during construction of the proposed improvements. Payment for this item will be made only as directed by the Engineer.

- Item 64 – Replace Existing Sewer Laterals (Single and/or Double): The unit price for this item shall be full compensation for all labor, equipment, and materials to replace an existing sanitary sewer lateral (single service and double services) to be paid on a per unit basis. This item includes, but is not limited to, maintenance of existing service, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion or provisions to avoid service interruption, backfill, and compaction, removal and disposal of existing pipe and fittings; installation of piping, fittings, reconnection to main and house service; backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. This item will be used for replacement of existing sanitary sewer laterals that are in conflict with proposed storm drain installation or existing sanitary sewer laterals that fail due to no fault of the Contractor. It will be the Contractor's responsibility to replace, at no additional cost to the City, existing

sanitary sewer laterals damaged or broken due to lack of reasonable care during construction of the proposed improvements. Payment for this item will be made only as directed by the Engineer.

- Item 65 – Remove and Replace Fire Hydrant Assembly: Measurement for payment to furnish and install fire hydrant assembly will be based upon actual quantity, each, of such named fire hydrants furnished and installed including the removal and disposal of the existing hydrant (up to the existing operating valve that is to be closed and abandoned), as indicated on the drawings or otherwise directed by the CITY or ENGINEER, all in accordance with the requirements of the Contract Documents. Location of new hydrant may differ from the removed hydrant. Payment for furnishing and installing fire hydrant assembly will be made at the unit price each, named in the Bid Schedule, as shown on the drawings and as described herein for which payment is not provided under other bid items and which price shall constitute full compensation for the fire hydrant assembly installation including but not limited to locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion; coordination and shut down of existing water mains; cutting, removal, and disposal of existing piping; installation of fire hydrant, valve, valve box, valve box extensions, operating nut extensions, concrete pad, restraining devices, risers, bends, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, all associated restoration work, and any other items required for a complete and satisfactory installation.

G. Paving and Restoration

- Item 66 – Mill Existing Asphalt (Up to 2-inch in Depth) and Resurface Asphalt (Minimum 1-inch SP 9.5): Measurement for payment for milling existing asphalt and resurfacing will be based upon the number of square yards of such materials actually milled and resurfaced in accordance with the requirements of the Contract Documents. Payment for milling and resurfacing existing asphalt will be made at the unit price per square yard up to 2-inch depth, which price shall constitute full compensation for milling, hauling off and disposing of the milled material, resurfacing, and for any other appurtenant items needed for milling and resurfacing asphalt for which separate payment is not specifically included in the Bid Schedule. Payment shall include milling up to 2-inches of depth and a minimum of 1-inch thick Superpave Asphalt (SP-9.5).

- Item 67 – Furnish and Install Speed Hump: Measurement for furnishing and installing speed humps will be based upon the actual number, each, of speed humps installed all in accordance with the requirements of the Contract Documents. Payment for furnishing and installing speed humps will be made at the unit price, each, named in the Bid Schedule, which price shall constitute full compensation for the completed installation of the speed humps including but not limited to all required materials, placement of asphalt and/or concrete and/or

pavers to required height and curbing.

- Items 68 through 71 – Restoration of Driveways/Parking Areas: Measurement for payment for restoration of driveways/parking areas will be based upon the actual number of square yards of such driveways/parking areas restored as shown in the Drawings, all in accordance with the requirements of the Contract Documents. Payment for restoration of driveways/parking areas will be made at the unit price per square yard named in the Bid Schedule, which price shall constitute full compensation for completing said work, including but not limited to all limerock, earthwork, compacting, subgrade, reconstruction of the driveway/parking area to the same depth and material as the existing one, furnishing and setting for expansion joint material, disposal of excess material, and the appurtenant items, such as mailboxes, for which separate payment is not specifically included in the Bid Schedule. No payment will be made for restoration of driveways outside the limits shown on the drawings or not approved in writing by the Engineer.

  Restoration of Driveways/Parking Areas (Asphalt):
  Asphalt to be minimum 1.5-inch thickness, SP-9.5 asphalt, and 6-inch limerock base with compacted 6-inch subgrade.

  Restoration of Driveways (Concrete, Stamped Concrete, or Textured Concrete):
  Concrete to be minimum 6-inch thickness with 12-inch compacted subgrade.

  Restoration of Driveways (Pavers or Brick):
  Pavers to match existing shape and color as closely as possible with 1-inch sand bed and 12-inch compacted subgrade.

  Restoration of Driveways/Parking Areas (Gravel):
  Gravel Driveway to be minimum 3-inch thick of ¾-inch crushed rock with 4-inch stabilized subgrade.

- Item 72: Clearing and Grading Swales: Measurement for payment for clearing and grading swale and or private property will be based upon the number of square yards of swale or private property actually cleared and graded all in accordance with the requirements of the Contract Documents. Payment for clearing and grading will be made at the unit price per square yard of clearing and grading named in the Bid Schedule which price shall constitute full compensation, including earthwork, importing of fill material, removal and disposal of excess material including but not limited to brush, bollards, and protection of trees to remain.

- Items 73 and 74 – Furnish and Install Concrete Sidewalk: Measurement for payment for furnishing and installing sidewalks will be based upon the actual number of square yards of such sidewalks constructed as shown in the drawings, all in accordance with the requirements of the Contract Documents. Payment for furnishing and installing sidewalks will be made at the unit price per square yard named in the Bid Schedule, which price shall constitute full compensation for completing said work, including all earthwork, compaction and stabilization of limerock base, subgrade, construction of the sidewalk, furnishing and setting for expansion joint material, backfilling of sidewalk, disposal of excess material,

handrail where protection is needed, and the appurtenant items for which separate payment is not specifically included in the Bid Schedule. This item does NOT include replacement of sidewalk already paid for under other bid items. Use of this bid item for payment shall be subject to approval from Engineer.

- Item 75 – Construct Type "E", Type "F", or Type "RA" Curb complete with Drop Curb, Shoulder Gutter, and 4-inch Curb Pad: Measurement for payment for furnishing and installing curb, drop curb, shoulder gutter and Curb pad will be based upon the number of linear feet of such Type "E", Type "F", or Type "RA" Curb complete with Drop Curb, Shoulder Gutter, and 4" Curb Pad actually constructed as determined by measurement along the centerline of the curb in place, and as shown on the drawings, all in accordance with the requirements of the Contract Documents. Payment for furnishing and installing curb and/or gutter will be made at the unit price per linear foot of curb and/or gutter named in the Bid Schedule, which shall constitute full compensation for complete installation including grading, placing 4" limerock pad, forming, saw cutting of pavement and cleanup of all areas disturbed by this construction. This item does NOT include replacement of curb and/or gutter already paid for under other bid items. Use of this bid item for payment shall be subject to approval from Engineer.

- Item 76 – Construct Type "A", Type "B", or Type "D" Curb complete with 4-inch Curb Pad: Measurement for payment for furnishing and installing curb, drop curb, shoulder gutter and Curb pad will be based upon the number of linear feet of such Type "A", Type "B", or Type "D" Curb complete with 4" Curb Pad actually constructed as determined by measurement along the centerline of the curb in place, and as shown on the drawings, all in accordance with the requirements of the Contract Documents. Payment for furnishing and installing curb and/or gutter will be made at the unit price per linear foot of curb and/or gutter named in the Bid Schedule, which shall constitute full compensation for complete installation including grading, placing 4" limerock pad, forming, saw cutting of pavement and cleanup of all areas disturbed by this construction. This item does NOT include replacement of curb and/or gutter already paid for under other bid items. Use of this bid item for payment shall be subject to approval from Engineer.

- Item 77 – Modify Existing Gutter Behind Landscape Island: Measurement for payment for Modify Existing Gutter Behind Landscape Island will be based upon the number of linear feet actual modification as determined by measurement along the centerline of such gutter, and as shown on the drawings, all in accordance with the requirements of the Contract Documents. Payment for modifying existing gutter behind landscape island will be made at the unit price per linear foot of gutter named in the Bid Schedule, which shall constitute full compensation for removal of existing concrete curb and gutters, leveling the existing gutter with new concrete, complete installation of new curb including grading, placing, forming, saw cutting of pavement and curb, smooth concrete finish at connection to existing site features, and cleanup of all areas disturbed by this construction. This item does NOT include replacement of curb and/or gutter already paid for under other bid items. Use of this bid item for payment shall be subject to approval from Engineer.

- Item 78 - Furnish and Install Pavement Markings and Signage: Measurement for payment for furnishing and installing pavement markings and signage will be

based on a lump sum which shall represent full compensation for all labor and material required to furnish and install pavement markings and signage, all in accordance with the Contract Documents. This item includes, but it is not limited to removing of existing pavement markings and signage, providing new pavement markings and signage, reflective pavement markers (RPM), thermoplastic messages, symbols, and/or turn arrows, relocating or adjusting existing signs or signals, and all appurtenant items, and associated incidental restoration work. Payment shall be at the lump sum unit price named in the Bid Schedule, which price shall constitute full compensation for the work of the complete installation. This item includes all work not defined in other bid items.

- Item 79 – Remove and Reinstall Mailboxes, Signs, and Lamps: The per unit price for this bid item shall be full compensation for all labor, equipment, and materials to remove and reinstall existing mailboxes, street signs, and lamp post throughout the project area. This item does NOT include removal and re-installation of mailboxes, signs, and lamps paid for under other bid items. Use of this bid item for payment shall be subject to approval from Engineer.

H. Landscaping

- Item 80 – Furnish and Install Tree Protection (Existing Trees): The lump sum price for this bid item shall be full compensation for protection of existing trees and landscaping, including all aspects of protection, trimming, pruning, fertilizing, and watering, furnished in accordance with Contract Documents. This item also includes the preparation and submittal of a tree disposition and landscape plan as well as the process for submitting and gaining approval of this plan.

- Items 81 through 90 – Furnish and Install Trees and Plants: The unit price for this bid item shall be full compensation per each for all labor, equipment, and materials to furnish and install trees and plants in accordance with the Contract Documents. This item shall include, but is not limited to, excavation (including rock), backfilling, guy stakes, protection, compaction, grading, topsoil, watering, fertilizing, disposal offsite of suitable or unsuitable materials, and all other appurtenances required for complete installation. Trees shall be guyed and protected as required. Trees shall be warranted for one year after substantial completion issuance.

- Item 91 – Furnish and Install Sod: The unit price for this item shall be full compensation on a per square yard basis for all labor, equipment, and materials required to furnish and install St. Augustine Floratam sod in accordance with the Contract Documents. This item includes excavation, backfilling, compaction, grading, top soil, sod, watering, fertilizing, disposal offsite of suitable or unsuitable materials, and all other appurtenances required for a complete installation.

- Items 92 and 93 – Remove and Dispose of Existing Trees: The unit price for this bid item shall be full compensation per each for all labor, equipment, and materials to remove and dispose of existing trees. Removal and disposal of trees shall include procuring the services of a Licensed Landscape Architect or Certified Arborist, obtaining of appropriate tree removal permits, spading of tree, root pruning, backfill and the removal and disposal of all vegetative matter associated with the removal as required by the Contract Documents or directed

by the Engineer. Contractor shall stake ROW limits a minimum of two weeks in advance of construction to coordinate with adjacent property Owners and possible conflicting utilities.

- Item 94 – Furnish and Install Vegetation Root Barrier: The unit price for this item shall be full compensation on a linear foot basis for all labor, equipment, and materials required to furnish and install a vegetation root barrier in accordance with the requirements of the Contract Documents.

- Item 95 – Existing Tree Canopy Trimming: Measurement for payment to trim existing tree will be based upon the actual number, each, of trees trimmed. Trimming of trees shall include obtaining appropriate permits and the removal and disposal of all trimmed tree limbs/material associated with the trimming of trees as required by the contract documents or directed by the ENGINEER. Tree trimming shall be performed under the supervision of an ISA Certified and Licensed Arborist. This pay item is for the trimming of trees with overhanging limbs that conflict with the installation of proposed improvements and is at the discretion of the Engineer and City.

- Item 96 – Existing Tree Root Pruning: The unit price for this item shall be full compensation on a linear foot basis for all labor, equipment, and materials required for trees that get their roots pruned. This item shall include obtaining appropriate permits and the removal and disposal of all the material associated with the pruning of the tree roots required by the contract documents or directed by the ENGINEER. Root pruning shall be performed under the supervision of an ISA Certified and Licensed Arborist.

1.04 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

A. Payment will not be made for following:

1. Loading, hauling, and disposing of rejected material.
2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
4. Material not unloaded from transporting vehicle.
5. Defective Work not accepted by City.
6. Material remaining on hand after completion of Work.

1.05 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

A. Partial Payment: Payment for stored materials and equipment shall only be made with submittal of “paid” receipts. No partial payments will be made for materials and equipment delivered or stored unless Shop Drawing or preliminary operation and maintenance manuals are acceptable to Engineer.

B. Final Payment: Will be made only for products incorporated in Work; remaining products, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

1.06 ALLOWANCES

A. The allowances shall be used only at the discretion of and as ordered by the City.

B. Any portion of these allowances that remain after all authorized payments have been made will be withheld from contract payments and will remain with the City.

C. Allowance Accounts

1. Permits, License, and Fees Allowance: The allowance account for this item shall be full compensation for all permits, licenses, and fees required of the Contractor from the various agencies having jurisdiction over the construction of the project. The allowance shown is an estimate of the fees required. Payment will be based on the actual permit, license or fee paid directly to the agency, documented by paid receipts, and specifically excluding any labor, markups, overhead and profit, administration, or other costs involved in obtaining the permits, licenses, or fees. Fees specifically excluded from this allowance include, but are not limited to, re-inspection fees and expired permit fees. Any portion of this fund remaining after all authorized payments have been made will be withheld from contract payment and will remain with the City of Fort Lauderdale.

2. Undefined Conditions Allowance: The allowance account for this item shall include work associated with undefined conditions or conflicts developing from undefined conditions including, but not limited to, removal, relocation and replacement of gas, cable, telephone, and fiber optic utilities in conflict with proposed utilities, structures, or work during construction. All work authorized for payment shall be authorized in writing by the City. Amount to be paid per undefined conditions or conflicts shall be negotiated or agreed to by both parties.

3. Contaminated Soil and/or Groundwater Services: The allowance account for this item shall be full compensation for all labor, equipment, material, and work required for the sampling, testing, removal, treatment, and discharge of contaminated groundwater or contaminated sediments as required by all applicable regulatory agencies. This item includes, but is not limited to, preparing a sampling plan, collecting and preserving samples, performing laboratory analyses, preparing reports, dewatering and necessary bypass pumping and/or diverting flow, providing and operating treatment units, discharging treated groundwater, and all other work required to complete this task in conformance with applicable regulatory requirements. Any portion of this fund remaining after all authorized payments have been made will be withheld from contract payment and will remain with the City of Fort Lauderdale.

4. FPL: The allowance account for this item shall be full compensation for all fees associated with obtaining electrical power from FPL. Payment will be based on the actual fee paid directly to the agency, documented by paid receipts, and specifically excluding any labor, markups, overhead and profit, administration, or other costs involved in payment of the fees. This allowance account shall also include additional work required by the Contractor for accommodating FPL service requirements not shown on the Contract Documents. All work shall be authorized for payment in writing by the City. Amount to be paid shall be negotiated or agreed to by both parties. Any portion of this fund remaining after all authorized payments have been made will be withheld from contract payment and will remain with the City of Fort Lauderdale.

5. Emergency Pumping During Storm Event: The allowance account for this item shall be full compensation for installation, operation, maintenance, and removal of the bypass pumps during Emergency Flood protection events. This item will be used at the discretion of the City and within the vicinity of the project site. Payment will be based on the actual costs paid to the equipment rental company with a fixed 10% markup for Contractor's overhead and profit. Any other costs associated with this item shall be negotiated and agreed to by both parties. Any portion of the funds remaining after all authorized payments have been made will be withheld from the contract payment and will remain with the City of Fort Lauderdale.

PART 2 -- PRODUCTS

(NOT USED)

PART 3 -- EXECUTION

(NOT USED)

- END OF SECTION -

SECTION 02015 MOBILIZATION AND DEMOBILIZATION

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Work specified in this section consists of all Work necessary to move in personnel and equipment and prepare the site for construction, complete and to remove the same personnel and equipment from the site when construction is complete.

B. The limits of the Contractor's staging area and other applicable restrictions shall be submitted to and approved by Engineer and City.

PART 2 – PRODUCTS

2.01 TEMPORARY UTILITIES

A. The Contractor shall provide all temporary facilities required for performing the Work as specified in Section entitled "Temporary Utilities".

B. The Contractor shall provide field office as specified in Section entitled "Field Office, Equipment, and Services"

PART 3 – EXECUTION

3.01 LAYOUT

A. The Contractor shall set up construction facilities in a neat and orderly manner within designated areas as noted on the Staging Plan submitted by the Contractor and approved by Engineer and City. It shall accomplish all required Work in accordance with applicable portions of these specifications and shall confine its operations to Work areas as approved by Engineer and City.

3.02 DEMOBILIZATION

A. At the completion of Work the Contractor shall remove its personnel, equipment, and temporary facilities from the site in a timely manner. The Contractor shall also be responsible for transporting all unused materials belonging to the City to a place of storage on site designated by the City and for removing from the site and disposing of all other materials and debris resulting from the construction. It shall then return all areas used for its activities to a condition as noted on the Contract documents.

- END OF SECTION -

SECTION 02314 VIBRATION AND NOISE MONITORING

PART 1 – GENERAL

1.01 DESCRIPTION

A. This specifies requirements for furnishing all labor, materials, equipment to perform all activities related to vibration and noise monitoring as specified herein:

1. Vibration monitoring associated with the installation of earthwork and/or installation of piles, piping, and sheet piling.
2. Provide vibration monitoring for each building structure within 100 feet of the vibration-inducing construction activity for the new pump station, the proposed 42-inch outfall, and proposed seawall and as necessary to capture the extent of potential damage. The Contractor shall provide seismographs at locations determined in the vibration monitoring plan as approved by the Engineer and Construction Manager. A preconstruction building condition survey of the existing buildings and structures located within 100 feet of the vibration-inducing construction activities shall be completed by the Contractor prior to the start of construction.
3. Furnish, install, maintain, monitor, and remove vibration monitoring equipment as specified herein.
4. Monitor vibrations and noise levels originating from construction operations as indicated herein.
5. Modify construction operation procedures if existing operation creates vibration or noise exceedances as specified herein.
6. Provide noise monitoring during all construction activities within the new pump station area.
7. Furnish, install, maintain, monitor, and remove noise monitoring equipment as specified herein.

1.02 REFERENCES

A. Unless otherwise noted, the latest edition of the following codes and standards shall govern this work. If any conflicts exist between these codes and standards the more restrictive requirements shall govern.

B. American Society for Testing and Materials International (ASTM)

1. ASTM E90: Standard Test Method for Laboratory Measurement of Air-borne Sound Transmission Loss of Building Partitions and Elements.
2. ASTM C423: Standard Test Methods for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

C. Federal Highway Administration (FHWA)

1. FHWA Highway Construction Noise Handbook, FHWA-HEP-06-02

D. United States Department of Interior, Bureau of Mines

1. Report of Investigations 8507, Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting

1.03 QUALITY ASSURANCE

A. Provide in accordance with Section 01400.

B. The Contractor's or Contractor's Vibration consultant and/or Acoustical Engineer, responsible for furnishing and installing all vibration and noise instruments, including all equipment specified here in, maintaining the instruments, as required, and interpreting all data provided or collected shall have the qualifications specified here in. The personnel may be employed by the Contractor or may be employed by a specialized consulting firm.

C. Vibration and/or Acoustical Engineer Qualifications:

1. A State of Florida Licensed Professional Engineer responsible for designing and monitoring vibration and noise specified here in and interpretation of the data.
2. Not less than six (6) years' experience in the installation and monitoring of the vibration and noise instrumentation specified herein.
3. Completed not less than five (5) successful vibration and noise installation and monitoring projects of similar scope and magnitude within the past ten (10) years.
4. Shall be onsite to supervise and conduct the pre/post installations of each type of instrumentation. The qualified engineer shall be onsite and supervise the first five (5) installations of each type of instrument, shall oversee and establish the formal initial readings, shall oversee interpretation of all collected and provide vibration and noise data.

D. Engineering Technician Qualifications:

1. To be responsible full-time on site during the implementation of the vibration and noise monitoring plan.
2. Not less than three (3) years of direct field experience in the installation and monitoring of the types of vibration and noise instruments specified herein and have supervised vibration and noise monitoring programs of a similar scope and magnitude with similar work conditions.
3. Shall be available to supervise all instrument installations, establish initial readings, collect baseline data, and vibration and noise data when the acoustical engineer is not present on-site.

1.04 SUBMITTALS

A. Submit the following shop drawings in accordance with General Conditions.

1. Submit the following qualifications four (4) weeks prior to the start of any construction activities.
   a. Qualifications of the Contractor's vibration consulting firm, as specified in Paragraph 1.03.C.
   b. Qualifications of the Contractor's Acoustical Engineer, as specified in Paragraph 1.03.C.
   c. Qualifications of the Contractor's Engineering Technician, as specified in Paragraph 1.03.D.

B. At least two (2) weeks prior to the start of any construction activities provide Vibration and Noise Monitoring Plans, prepared by the Vibration consulting firm and/or the Acoustical Engineer, and installation details specified herein. This shall include but not limited to the following:

1. Drawings showing the layout and locations of instruments, including wire diagrams for power and/or communications. Power lines carrying 110 volts or more shall be enclosed in conduits of the size and materials required by the NEC.
2. The scheduled start date and length of construction operations which require vibration and noise monitoring.
3. Instrument identification numbers.
4. Details of supports, fixtures, etc. required for installation of instruments and associated systems.
5. The location of any underground utilities in proximity to the construction operation.
6. Proposed construction method(s). The duration and type of equipment to be used during construction and an explanation of how the vibrations will be maintained at an acceptable level.
   a. Identify equipment location and processes.
7. Identification of the zones of potential construction influence for vibrations and noise.
8. Identification of vibration and noise sensitive structures including fragile, sensitive, and historic buildings near the project.
9. Vibration Calculations: Prepare calculations of maximum peak particle velocity vibration level expected at the nearest residential, commercial, and all other structures and railways.
10. Noise Calculations: prepare calculations of one-hour Leq noise levels expected at the nearest residential and commercial buildings.
11. Update the Vibration and Noise Monitoring plans at least in three (3) month intervals from the initial acceptance date.
12. Vibration and Noise reduction Methods: To the extent required to meet the ground vibration peak particle velocity, and exterior noise limits specified herein, modify construction operations to reduce vibration and noise.
13. Manufacturers materials and equipment data sheets.
14. Design of noise mitigation strategies, methods, procedures, and technology and locations and types of noise reduction measures that may be required. The Contractor is hereby notified that the noise mitigation plan for all work within the new pump station area use zoning area must require review and approval by the Architect/Engineer and Construction Manager.
15. Location of noise sensitive locations and any specified measures to be undertaken to minimize the impact of work on these locations.

C. Provide vibration and noise measurement equipment calibration certificates for equipment used on site by the Contractor.

D. The procedure for tracking peak particle velocity (PPV) throughout construction operations (e.g., Pile Driving Operations: pile tip vs. vibrations may be correlated through time of day. A record of the time of day at each depth interval, included on the pile driving records, would be required to correlate to a time-based readout of (PPV).

E. Equipment Sound Level Data Reporting Form for each item of construction equipment to be used.

F. Laboratory calibration conformance certificate for all noise measuring equipment used by the Contractor prior to performing any noise level monitoring. Submit updated certificates following subsequent yearly calibrations, or upon completion of repairs to the instrument, for the duration of the Contract.

G. Manufactures Certificate of Compliance that equipment is noise attenuated.

H. Daily reports, while performing vibration-inducing operations, detailing each source of vibration,

location of monitoring, and the vibration records highlighting peak particle velocities. All daily reports shall be stamped and signed by the Vibration Consulting Firm's Professional Engineer and provided within 24 hours of the end of each day's activities indicating a site plan drawing showing the location of the instrument and maximum and average vibration recorded during the workday period.

I. The Contractor shall submit a final report summarizing the collected data upon completion of each construction operation.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements specified in Section 01550.

1.06 SITE CONDITIONS

A. Geotechnical Investigation Results Report: The report is for information only, which is part of the Contract Documents. The boring logs and soil profiles are available and indicate subsurface conditions encountered only at the borehole location. This information shall not be construed as to guarantee that other subsurface materials will not be present or that proportions of materials will not vary from that shown on the boring logs.

B. Preconstruction Building Condition Survey: A preconstruction building condition survey shall be completed by the Contractor prior to the start of construction of the Pump Station, 42-Inch Outfall, and seawall (including but not limited to pipeline, water treatment facility, gate valve, headwall, erosion and sediment controls). The survey will document exterior preconstruction conditions of structures within a 100-foot radius of the new pump station construction site to establish a precondition baseline condition. Contractor shall utilize this document in conjunction with preparation of its monitoring plans as required.

PART 2 – PRODUCTS

2.01 EQUIPMENT

A. Seismographs shall be "Minimate Pro4" manufactured by Instantel Inc., or approved equal, and shall have the following minimum features:

1. Seismic Range: 0.01 to 10 inches per second with an accuracy of plus or minus 5- percent of measured peak particle velocity or better at frequencies between 4 and 125 Hertz, and with a resolution of 0.001 inch per second or less.
2. Acoustic Range: 88 to 148 dB (L) with an accuracy and resolution of plus or minus 1 decibel.
3. Frequency Response (plus or minus 3 decibel points) 2 to 250 Hertz.
4. Three Channels for vibration monitoring plus a fourth channel for linear or sound level microphone.
5. Two power sources: Internal rechargeable battery and a charger and 115 volts ac. Battery must be capable of supplying power to monitor vibrations continuously for up to 24 hours.
6. Capable of internal dynamic calibration.
7. Computer software to perform analysis, produce reports of continuous monitoring, and to perform zero-crossing frequency analyses of waveform data on magnetic disks.
8. Self-triggering waveforms capture mode that provides the following information: plot of waveforms, peak particle velocities, and frequency peaks.
9. Continuous monitoring mode capable of recording events up to 10 seconds long, and histogram mode to record events continuously.

10. All geophones shall be external to the seismograph to allow solid bolting or anchoring to surfaces with “Red Head” anchors or approved equals.

B. Sound Level Meters provided by the Contractor shall comply with the requirements of the current revision of ANSI S1.4, Type 2 (Precision) Sound Level Meters (SLM). SLM to be capable of measuring the L_{max} and ten minute to one hour L_{eq} on the A-weighted scale required for the noise level limits specified herein.

2.02 NOISE CONTROL MATERIALS

A. Noise control materials may be new or used. Used materials shall be sound and free of damage and defects and shall be of quality and condition to perform their design function. All equipment and materials specified herein will remain the property of the Contractor or Contractor’s subcontractors, vendors, and suppliers, as applicable.

B. All construction equipment shall incorporate the latest noise attenuation features available to the manufacturer.

C. Acoustical materials and curtains shall have a Sound Transmission Class (STC) rating of STC 30 or greater, based on sound transmission loss data according to ASTM E90. The noise absorption face of the curtain shall have a Noise Reduction Coefficient (NRC) rating of 0.85 or greater, based on sound absorption coefficient data taken according to ASTM C423.

PART 3 – EXECUTION

3.01 GENERAL REQUIREMENTS

A. Provide access to instrument locations and maintain instrument locations from damage.

B. Perform Work within the permissible noise and vibration levels, Work Schedule limitations, and procedures provided herein, and applicable Federal, State, County, and Municipal codes, regulations, and standards.

C. The property owners for any and all structures to be monitored for vibration with seismographs shall be notified in writing two (2) weeks in advance of any work and prior to accessing any property to install equipment.

D. No vibration producing construction activities may be started until the appropriate instrumentation is provided by the Contractor and approved by the Construction Manager.

E. Other than those provided as part of the Contract, the Contractor is responsible for obtaining permits, variances, equipment certifications, and other documents required.

F. Modify vibration and noise control measures based on results of the vibration and noise measurements undertaken and any reported nuisance conditions, define operational and/or equipment restrictions.

G. The Construction Manager may issue a Stop Work notice if the vibration and noise level limits set herein are exceeded and cannot be mitigated.

3.02 VIBRATION AND NOISE MONITORING

A. Furnish specified instruments to be installed, operated and interpreted by the vibration consulting firm and/or Acoustical Engineer 's personnel, as specified below and indicated. Noise monitoring stations shall be installed in three (3) locations at the pumping station/seawall site (at property boundaries closest to residential structures).

B. Vibration monitoring stations shall be located at each building structure within 100 feet of the vibration-inducing construction activity for the entire project area and shall be maintained as required as the construction moves from municipal block to municipal block to adequately capture the vibration effects of the construction.

C. Take initial background readings of all noise stations for a one-week period prior to the start of construction activity in the area.

D. Take initial background readings at all seismograph locations for three days prior to the start of construction activities in the area.

E. Perform all vibration-inducing operations so that vibrations reaching adjacent structures and facilities are within specified limits.

F. All vibration and noise reporting shall comply with this Section as specified herein.

3.03 VIBRATION LEVEL LIMITS

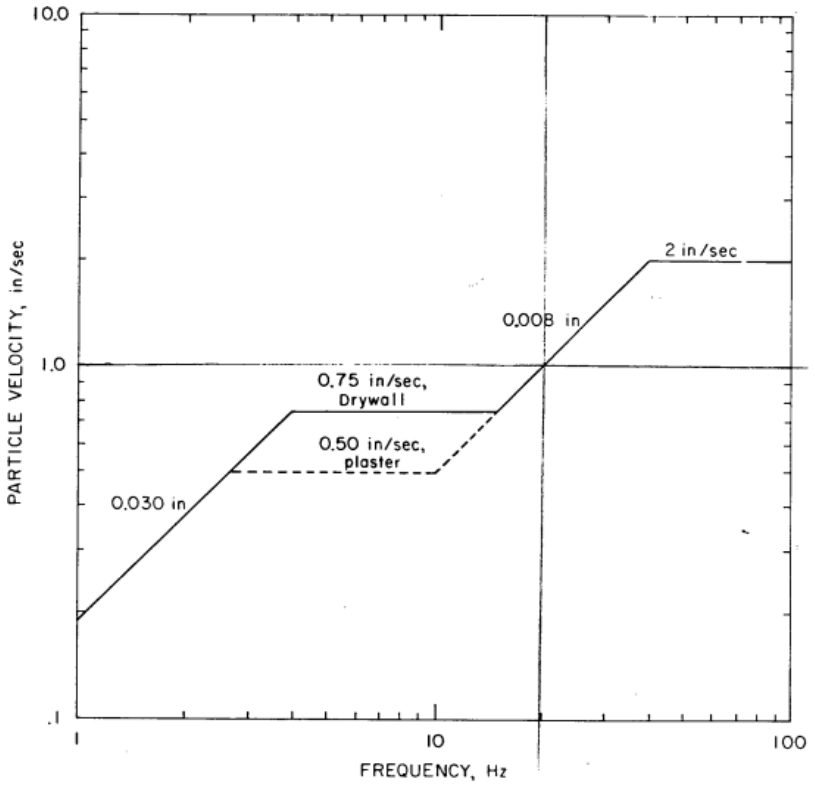
A. Monitor vibrations by measuring the peak particle velocity in the vicinity of work. Peak particle velocity is defined as the maximum of the ground motion velocities measured in the vertical, longitudinal, and transverse directions measured in inches per second (in/s), for construction activities and operations of temporary systems shall be follows:

1. New Construction:
   a. The maximum PPV level limits, in any direction, for all new concrete construction shall not exceed the table below measured by a portable seismograph place adjacent to the new construction at the closest point to the vibration source. The maximum permissible PPV shall be reduced if damage is detected. It is assumed that the vibration-inducing construction activity shall have an influence zone of 100 feet radius when considering the protection of new construction.

Type of Concrete	**Age of concrete (hours)**	**Peak Particle Velocity (in./sec)**
Mass Concrete footings, mats, slab-on-grade	0-10	1.0
fill concrete, etc.	11 and over	2.0
Concrete Structures	0-11	0.5
walls, columns, elevated	11-24	1.0
slabs, etc.	24 and over	2.0

2. Existing structures:
   a. The maximum PPV level limits, in any direction, for all construction activities at buildings and structures, as indicated in the Contract documents, shall not exceed the

vibration criteria shown in Figure 02 32 14-1 as measured by a portable seismograph placed adjacent to or within the building or structure at the location closest to the vibration source. The maximum permissible PPV shall be reduced if movement or cracking is detected or if the pre-construction survey identifies a building or structure with a lower PPV threshold that should be imposed. It is assumed that the vibration-inducing construction activity shall have an influence zone of approximately 100 feet radius depending on activity when considering the protection of sensitive buildings and structures. Monitoring of vibrations at such buildings shall be undertaken for the duration of construction activities that will influence the structure.



Source: United States Bureau of Mines, RI 8507.

Figure 02314-1: Construction Vibration Criteria

B. In the event any data indicates that vibration level limits are being exceeded, immediately suspend all vibration-inducing operations and submit a report to the Construction Manager. Revise operations to reduce vibrations and submit a copy of the revised procedure to the Construction Manager at no additional cost to the DEP.

C. If evidence of displacement or damage to utilities, equipment, or structures is observed or reported, immediately notify the Construction Manager and Stop Work in the area. Revise operation to reduce vibrations and submit a copy of the revised procedure to the Construction Manager.

D. Restore or replace utilities, equipment, or structures damaged by vibrations at no additional cost to the DEP.

3.04 NOISE LEVEL LIMITS

A. Noise levels for public exposure shall comply with the following exterior noise level restrictions in all areas:

1. In no case expose the public to construction equipment noise levels exceeding 90 dBA on "slow" response or impulsive noise level exceeding 125 dBA maximum transient level "fast" response as measured on a general-purpose sound level meter.
2. Conduct construction activities in such a manner that the noise levels at the nearest affected building do not exceed the levels listed in Table 02 32 14-1 below.
3. In areas outside of the Work area and not designated as a special zone, prevent stationary noise sources, parked mobile sources or any other source or combination of sources from producing repetitively scheduled or long-term noise lasting more than 10 percent of the construction duration from exceeding the limit in Table 02 32 14-1 below.

B. Test the equipment and demonstrate compliance with noise limits specified herein.

C. Perform the work in a manner to minimize nuisance conditions such as noise that exhibits a specific audible frequency or tone (e.g. back-up alarms, unmaintained equipment, and brake squeal) or impact noise.

Table 02314-1: Construction Noise Limits

Land Use	Noise Level – Leq (dBA) (whichever is greater)	Lmax Level (dBA, slow)
Daytime (8 am to 5 PM)		
Residence and building where people normally sleep	75 or Background +5	85 90 (impact equipment)
Commercial Spaces	80 or Background +5	None
Industrial Spaces	80 or Background +5	None
Evening (5 pm to 10 pm)		
Residence and building where people normally sleep	65 or Background +5	85
Commercial Spaces	80 or Background +5	None
Industrial Spaces	80 or Background +5	None
Nighttime (10 pm to 8 am)		
Residence and building where people normally sleep	Background +5 (if <70 dBA) Background +3 (if > 70 dBA)	80 80
Commercial Spaces	None	None
Industrial Spaces	None	None

Notes:
1. Noise from impact equipment is exempt from the Leq requirement, however, is subject to a lot-line Lmax limit of 90 dBA.
2. All measurements will be taken at the affective lot-line in accordance to what is stated herein.
3. Noise level limits are averaged over 20-minute intervals.
4. Lmax noise level limits are the maximum noise level that occurs over a 20-minute period.

3.05 EQUIPMENT NOISE CERTIFICATION

A. Requirements for Construction Equipment:

1. Ensure the Contractor and subcontractor construction equipment used in the Work area is tested for compliance with state noise emission limits during the first day of use on the Project, with compliance data provided to the Construction Manager for review.

2. Retest equipment at six-month intervals while in use in the Work Area and certify new equipment before being placed into service at the Work area.

3. For each piece of equipment used, provide an Application for Certificate of Equipment Noise Compliance. Ensure that the equipment identification number used for the Certificates is consistent with the identification number used in the Noise Monitoring Plan. Do not use equipment onsite without valid Certificates of Noise Compliance. The Certificates at a minimum shall have the following information:
   a. Contractor Name
   b. Contract name and number
   c. Equipment type, manufacturer, and model number
   d. Identification number
   e. Rated power & capacity
   f. Operating condition during test
   g. Measured noise level at 20 to 50 feet from equipment on both the left and right sides
   h. Maximum allowable noise level for equipment based on FHWA-HEP-06- 02.
   i. Authorized signature from the Contractor.

B. Test Procedures for Construction Equipment:

1. Operate engine-powered equipment by Contractor at maximum governed rpm under full load conditions during tests.
2. Test portable and mounted impact hammers, such as hoes rams, jackhammers, to be used for concrete breaking, during first day of actual operation at the Work area under maximum load conditions as rated by the equipment manufacture.
3. Noise Certification Measurement: Use an acoustic calibrator of the type recommended by the sound level meter manufacturer before measurements.
4. As specified herein, take measures at two locations: two from the right and left sides of the equipment, at a distance of 50 feet and a height of five feet above ground level, with equipment operating at maximum governed rpm under full load conditions for a minimum period of one minute. Reduce noise measurements made at less than 50 feet, due to space limitations at test location by the values in the following Table 02 32 14-2:

Table 02314-2: Adjustments for Close-In Equipment Noise Measurements

Distance (feet)	Measured Values to be Subtracted from Measured Noise Level to Estimate Sound Level at 50 feet (dBA)
19-21	8
22-23	7
24-26	6
27-29	5
30-33	4
34-37	3
38-42	2
43-47	1
48-50	0

C. Noise Certificate Compliance:

1. Complete and maintain a noise report for each piece of equipment used with certification that the equipment noise emissions does not exceed those prescribed in FHWA-HEP-06-02.
2. If noise levels obtained during tests exceed those specified in FHWA-HEP-06- 02, remove such equipment from use until equipment is modified and retested, or substitute other equipment to meet the noise level requirements.
3. Equipment will be subject to spot noise level testing at the Construction Manager's discretion to determine that the equipment in use meets the requirements specified herein.

3.06 CONTRACT CLOSEOUT

A. Provide in accordance with Section 01770.

- END OF SECTION -

CAM #25-0925
Exhibit 1A
Page 71 of 2050

SECTION 02665 CURED-IN-PLACE PIPE LINING

PART 1 – GENERAL

1.01 DESCRIPTION

A. Provide all materials, equipment, labor and incidentals for the installation and testing of cured-in-place pipe lining (CIPPL) within the storm sewer pipe between structure runs.

B. The CIPPL process shall consist of inserting a resin-impregnated flexible tube into an existing sewer, expanding the tube out against the sewer pipe, and curing the tube to form a pipe liner. Curing shall be accomplished by circulating heated water or steam to affect the desired cure throughout the tube extending full length from manhole to manhole.

C. The CIPPL shall cure into a hard, impermeable liner pipe of the specified thickness and form a structurally sound liner pipe with a uniformly smooth interior providing hydraulic flow equal to or greater than the existing sewer in original condition.

1.02 RELATED SECTIONS

A. Section 01510 – Temporary Utilities.

1.03 REFERENCE STANDARDS

A. Comply with applicable provisions and recommendations of the following:

1. ASTM D543 - Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents.
2. ASTM D790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
3. ASTM D2122 – Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings.
4. ASTM D2990 - Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics.
5. ASTM D5813 – Standard Specification for Cured-In-Place Thermosetting Resin Sewer Pipe.
6. ASTM F1216-05 – Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
7. Standards of American National Standards Institute, ANSI

1.04 QUALIFICATIONS

A. For each method of installation and curing used on this project, CONTRACTOR shall have a history of at least 150,000 linear feet of CIPPL work in 8” to 18” sewers using a similar resin and felt and using the specific method of installation and curing being used.

B. For each method of installation and curing used on this project, the CIPPL Work shall be supervised by a foreman having previously supervised a minimum of 15,000 linear feet of CIPPL in 8” to 18” sewers using a similar resin and felt and using the specific method of installation and curing proposed.

C. The entity performing the wet-out of the CIPPL shall have been performing this type of work for a minimum of two years and previously wet-out at least 250,000 linear feet of 8” to 18” diameter CIPPL.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Care shall be taken in shipping, handling and storage to avoid damaging the liner. Extra care shall be taken during cold weather construction. Any liner damaged in shipment shall be replaced as directed by the OWNER at no additional cost to OWNER.

B. While stored, the CIPPL shall be adequately supported and protected. CIPPL shall be stored in a manner as recommended by the manufacturer and as approved by the ENGINEER.

1.06 QUALITY CONTROL

A. Though the process may be licensed, no change of material, design values, or procedures may be made during the course of the Work without the prior written approval of the ENGINEER.

B. All liner to be installed under this Work may be inspected at the wet-out facility for compliance with these specifications by OWNER or ENGINEER. The CONTRACTOR shall require the wet-out facility’s cooperation in these inspections. The cost of inspection will be the responsibility of the OWNER.

C. At the time of manufacture, each lot of liner shall be inspected for defects and tested in accordance with applicable ASTM standards. At the time of delivery, the liner shall be homogeneous throughout, uniform in color, free of cracks, holes, foreign materials, blisters, or deleterious faults.

D. For testing purposes, a production lot shall consist of all liner having the same marking number. It shall include any and all items produced during any given work shift and must be so identified as opposed to previous or ensuing production.

E. CONTRACTOR shall have a Quality Control Plan or Procedure in place that will allow the ENGINEER to monitor the resin impregnation process.

1.07 WARRANTY

A. All lining work shall be fully guaranteed by the CONTRACTOR for a period of 10 years from the date of Conditional Acceptance. During this period, all defects discovered by the OWNER or ENGINEER shall be removed and replaced by the CONTRACTOR in a satisfactory manner at no cost to the OWNER. In addition to the Warranty Inspection specified under Paragraph 3.9, the OWNER may conduct independent television inspections, at its own expense, of the lining Work at any time prior to the completion of the guarantee period.

1.08 SUBMITTALS

A. Name and qualifications of independent testing laboratory provided by CONTRACTOR.

B. Cured-In-Place Pipe:

1. Structural design calculations and specification data sheets listing all parameters used in the liner design and thickness calculations based on Appendix XI of ASTM F1216-05 for

each pipe segment. All calculations shall be prepared under and stamped by a Professional Engineer registered in the State of Florida. Submit P.E. Certification Form for all CIPPL design data.

2. The name of the liner and resin manufacturer, the location of the facility where each was manufactured, and a list of appurtenant materials and accessories to be furnished.
3. The Quality Control Plan or procedures for the wet-out facility that ensure proper materials are used in the resin impregnation process and in liner shipping and storage.
4. Certified test reports demonstrating that the exact resin/liner combination to be used for this project meets the requirements for initial structural properties (performed in accordance with ASTM F1216-05 and ASTM D790) and chemical resistance (performed in accordance with ASTM F1216-05, Appendix X2 and ASTM D543).
5. Certified test reports demonstrating that the exact resin and comparable liner to be used for this project has been tested for long-term flexural modulus of elasticity (i.e. 10,000 hour creep testing performed in accordance with ASTM D2990 for design conditions applicable to this project). If the liner used for testing is not the exact liner to be used on this project, submit a detailed description of the physical properties of both the liner used in the test and the liner to be used for this project to demonstrate that the two liners are comparable in terms of physical properties.
6. Installation and quality control plan, including bypass pumping plans, mainline sewer cleaning plan and cleanliness requirements, liner shot plan and sequence, liner installation standard procedures, intermediate manhole exposed liner restraining method, boiler sizing calculations, temperature monitoring plan, and plan to manage flow to/from laterals during lining.
7. Curing schedule for each shot, including heating, curing, and cool-down schedules.
8. Copies of curing log sheets for each inversion. Curing logs must be submitted weekly.

C. Resin:

1. Technical data sheet showing physical and chemical properties.

D. Flexible Tube:

1. Technical data sheet showing physical properties.

E. Hydrophilic end seal material to be used and method of installation.

F. Contingency Plan, including methods and equipment to be used to repair unacceptable liner defects and for removing failed liners, and for availability and accessibility of backup equipment such as air compressors and boilers.

G. Documentation of Pre-Construction Inspection and Post-construction Inspection

H. Available standard written warranty from the manufacturer of wet-out liner.

I. Quality control report for resin impregnation of each CIPPL segment showing information such as resin lot numbers, volumes of resin, and catalyst used. Include a checklist so that each critical step in the resin impregnation process is checked off and initialed.

J. Curing log of CIPPL temperatures at the upstream and downstream manholes during the curing process to document that proper temperatures and cure times have been achieved.

K. Copies of test results performed by the CONTRACTOR'S independent testing laboratory as required by paragraph 3.7.

PART 2 - PRODUCT

2.01 DESIGN REQUIREMENTS

A. The CIPPL lining shall be a resin-impregnated, flexible polyester felt, or equivalent material tube which is inserted into the sewer to be rehabilitated and cured-in-place by an acceptable curing method. The tube shall have a suitable polyurethane membrane coating for protection of the interior surface and to provide a uniform, smooth flow surface. When installed, there shall be no film or plastic membrane between the existing inner sewer surface and the resin filled felt liner. The resin shall be a liquid thermosetting resin and shall be suitable for the design conditions as well as the curing process.

B. CIPPL Thickness:

1. The required structural CIPPL wall thickness shall be based, as a minimum:
   a. In accordance with ASTM F1216-05, Appendix X1, Design Considerations for a fully deteriorated or partially deteriorated host pipe, as indicated in the Lining Summary at the end of this Section.
   b. A minimum overall safety factor of 2.0.
   c. A minimum service life of 50 years under continuous service.
   d. A modulus of soil reaction of 950 psi.
   e. A soil density of 120 lbs/ft^3
   f. A Poisson's ratio of 0.3.
   g. An enhancement factor of 7.
   h. A groundwater elevation over the pipe equivalent to surface grade unless otherwise noted in the Lining Summary at the end of this Section.
   i. Ovality for each segment to be lined is noted in the Lining Summary at the end of this Section.
   j. Live loads for each segment to be lined are noted in the Lining Summary at the end of this Section.
   k. Fully or partially deteriorated condition for each segment to be lined is noted in the Lining Summary at the end of this Section.
   l. Soil depth for each segment to be lined is noted in the Lining Summary at the end of this Section.
2. The flexural modulus and flexural strength used in the design shall be the values as rated for the specified service life. Independent third party test data of the proposed liner performed in accordance with ASTM D790 and ASTM D2990 is required as evidence of the values used in design.
3. The liner thickness of each pipe segment shall be determined by the CONTRACTOR and submitted per Paragraph 1.8 of this Section.

C. Installed thickness of the CIPPL shall be within minus 5 percent and plus 15 percent of the design thickness as certified by an independent testing laboratory in accordance with paragraph 3.7.

D. When cured, the liner shall form a continuous, tight fitting, hard, impermeable liner that is chemically resistant to chemicals found in domestic sewage and which provides the maximum available abrasion resistance.

E. The liner shall be fabricated to a size that when reformed will tightly fit the sewer being rehabilitated. Allowance for longitudinal and circumferential expansion shall be taken into account when sizing and installing the liner. Field verify all dimensions prior to delivery of the liner. The contact tolerance is 1.0 mm. Where any space or gap between the outside surface of the liner and the inside surface of the existing pipe exceeds 1.0 mm, the liner fit will be deemed deficient and corrective action will be required. Where irregularities of the existing pipe exists such as offset joints, protrusions, bumps, and deformations, and the irregularities remain after the sewer has been prepared in accordance with the Contract Documents, exception to the contact tolerance will be allowed in the irregularity zone. The exception shall not present an obstruction to sewage flow.

F. The length of the liner shall be that deemed necessary by the CONTRACTOR to effectively carry out installation and seal the liner at the inlet and outlet of each manhole as specified herein. Field verify all lengths prior to construction.

G. Ensure that the correct liner is installed in each sewer being rehabilitated.

2.02 FLEXIBLE TUBE

A. The sewn tube shall consist of one or more layers of absorbent non-woven felt fabric and meet the requirements of ASTM F1216-05.

B. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that may cause delamination in the CIPPL. No dry or unsaturated layers shall be evident.

C. The felt content of the liner shall be determined by the CONTRACTOR, but shall not exceed 25 percent of the total impregnated liner volume.

D. The wall color of the interior pipe surface of CIPPL after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.

2.03 RESIN

A. The liquid thermosetting resin shall saturate the tube and produce a properly cured liner which is resistant to abrasion due to solids, grit, and sand.

B. Polyester, vinyl ester, or epoxy resin and catalyst system shall comply with the following requirements and that when properly cured meets the requirements of ASTM F1216-05.

1. Polyester Resin: A resin created by reaction products between isophthalic/tetrathalic acid, maleic anhydride, and a glycol characterized by reactive unsaturation located along the molecular chain. This resin is compounded with a reactive styrene monomer and reacted together with initiators/promoters to produce cross-linked copolymer matrices.
2. Vinyl ester Resin: A resin created by reaction products of epoxy resins with methacrylic acid and characterized by reactive unsaturation located in terminal positions of the molecular chain. This resin is compounded with a reactive styrene monomer and reacted together with initiators/promoters to produce cross-linked copolymer matrices.
3. Epoxy Resin: A resin created by reaction products of biphenyl A and epichlorohydrin producing glycidyl ether reactive sites in the terminal position of the molecular chain. This resin is cross-linked with the reactive equivalent of a curing agent suitable for the cured-in-place process.

PART 3 - EXECUTION

3.01 PREPARATION

A. Review survey television inspection logs and/or conduct additional inspection of the sewer line to plan rehabilitation work. Determine the location of all active sanitary services prior to lining. Dye test to verify all active service connections, if necessary. Taps that cannot be attributed to a specific building shall not be reopened unless subsequent evidence to the contrary is obtained.

B. Inspect and confirm the inside diameter, alignment and condition of each manhole to manhole segment to be lined. Use the data and information collected from this inspection to verify the size of the liner and refine the installation techniques. If unknown physical conditions in the work area are uncovered during the investigation that materially differ from those ordinarily encountered, notify the ENGINEER.

C. Clean sewer lines prior to CIPPL lining, such that the sewer lines are free of roots, grease, sand, rocks, sludge and other debris.

D. The pump and bypass lines shall be of adequate capacity and size to handle the flow of the sewers. The proposed bypassing system shall be reviewed in advance by the ENGINEER. The review of the bypassing system by the ENGINEER shall in no way relieve the CONTRACTOR of his responsibility and/or public liability.

E. Clear the line of obstructions such as solids, dipped joints or broken pipe that will prevent the insertion of the liner. If inspection reveals an obstruction that cannot be removed by the conventional cleaning equipment, make an excavation and repair the obstruction. This work shall be approved the ENGINEER prior to commencement of the work and shall be paid under a Change Order.

F. For pipe segments found to have any actively leaking defects that would be categorized as Runners or Gushers by the PACP Defect Rating Codes, grout every joint on said pipe segment if instructed by the ENGINEER. When so instructed, render the pipe free of Runners or Gushers. Payment for grouting joints in pipes to be lined, when directed by the ENGINEER, shall be paid as Contingent Packer Injection Grouting of Pipe Joints Prior to CIPPL Rehabilitation in accordance with Section 01025.

G. Remove pockets of water from the pipe.

H. Provide Pre-Construction Inspection in accordance with City Inspection requirements, no more than four hours prior to CIPPL lining to demonstrate that the pipe is clean and free of roots, grease, sand, rocks, sludge, PACP Runners or Gushers, pockets of water, or structural impediments that would affect long-term viability of the pipe liner.

I. See notification requirements under Division 01.

3.02 BYPASS PUMPING

A. Maintain the functionality of existing stormwater conveyance systems throughout the construction process. If it becomes necessary to temporarily interrupt stormwater flow to properly complete the work, the CONTRACTOR may do so only after coordinating and obtaining approval from the CITY. Upon completion of the work, the CONTRACTOR shall promptly restore stormwater flow and notify the CITY that normal conditions have been reinstated The CONTRACTOR assumes all liability for blockages, back-ups, flooding, or damages caused to public or private property as a result of the interruption of service, whether caused by the CONTRACTOR'S or property owner's actions.

3.03 CIPPL INSTALLATION PROCEDURES

A. Maintain two working lateral reinstatement cutters at the job site at all times. Lining work shall not commence if the CONTRACTOR does not have the required number of working cutters on site. No additional time or compensation shall be awarded to the CONTRACTOR in the event that work is stopped due to the CONTRACTOR'S failure to comply with this requirement.

B. Resin Impregnation (Wet Out): Designate a location where the flexible tube will be impregnated with resin. Thoroughly saturate flexible tube prior to installation. A catalyst system, or additive compatible with the resin and flexible tube, may be used as recommended by the manufacturer and with approval of the ENGINEER. Handle the resin-impregnated flexible tube to retard or prevent resin setting until it is ready for insertion.

C. Insertion: Insert flexible tube through an existing manhole by means of the inversion. Connect tube ends by an attachment so that a leak-proof seal is created. The liner material shall be inserted through a manhole by means and method required by the manufacturer, and shall be fully extended to the lower manhole. The use of a lubricant may be indicated and, if used, such lubricant shall be as approved by the manufacturer's standards. Follow the manufacturer's standards during the elevated curing temperature so as not to over stress the felt fiber and cause damage or failure of the liner prior to cure. Make allowance for circumferential stretching during inversion. Do not utilize overlapped layers of felt in longitudinal seams that cause lumps in the final product.

D. CIPPL restraint sleeves shall be approved for use at the insertion and receiving manholes only. Ensure that the sleeve system does not enter the host pipe. Sleeve restraint systems will not be allowed in intermediate manholes. Use other methods of restraint (i.e., sandbags, cut PVC pipe) at intermediate manholes.

E. Insert continuous or properly trimmed hydrophilic waterstops at each manhole opening

approximately three inches from manhole. Trimmed waterstop edges shall be butted up against each other at the crown of the pipe using a 45° miter cut. Waterstops with any gap between the ends will not be accepted. For manholes with outside or inside drops, install hydrophilic waterstops approximately one inch and four inches upstream of the drop and trim back CIPPL to the drop opening.

F. The pressure head used during the installation process shall be sufficient to hold the liner tight to the pipe wall, producing dimples at all service connections and the two access manholes, and preventing wrinkles in the cured liner. The same head shall be great enough to prevent infiltration from entering the pipeline during the curing process. Pressure head shall be maintained sufficiently long enough to allow pockets of water to exfiltrate through the host pipe and prevent lifts in the liner and resin washout.

G. Curing:

1. Follow submitted cure schedule in curing of liner.
2. After insertion is completed, apply a suitable recirculation system capable of delivering air, steam, or water, as required by the liner system manufacturer, uniformly throughout the section to achieve a consistent cure of the resin. Maintain the curing temperature as recommended by the liner system manufacturer. Prevent excessive temperatures that could scald or bubble the liner. Scalded or blistered liner will be rejected if, in the opinion of the ENGINEER, the performance of the liner is compromised.
3. Fit suitable monitors to any heat source to gauge the temperature of incoming and outgoing water or steam supply, where appropriate. Place additional gauges between impregnated tube and invert of the original pipe at each manhole to monitor outside liner temperatures during resin curing.
4. Continue uninterrupted curing until the desired product is achieved.
5. Provide for vapor tight connections in the downstream manhole such that no vapors enter downstream pipes. Alternatively, provide styrene odor reducing agents, venting, and downstream plugs sufficient to prevent steam, styrene, or other odors from entering downstream buildings.

H. Cool Down: Initiate a controlled cool-down to cool the hardened liner to a temperature below 110°F, in accordance with the cure schedule. Take care in release of the pressure column so that a vacuum will not develop that could damage the newly installed liner. Do not discharge water in excess of 110°F into the sewer system. Ambient cooling shall not be allowed.

I. Finished Pipe: Provide a finished CIPPL that is continuous and free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, delamination, and wrinkles at any location totaling more than 5% of host pipe inside diameter.

J. If a point repair is required after the liner has cured, use a tube segment with compatible (preferably identical) properties as the liner to splice across the point repair. Point repair shall extend a minimum of 3-feet on each side of the defect.

K. Reopen all of the existing active service connections in each length of sewer immediately following installation of the liner. Reopen the active service connections from inside the sewer by means of

a television camera controlled cutting device appropriate for the liner material and the rehabilitated sewer pipe. All of the liner penetrations or openings shall be watertight. Each active service connection shall be cut completely open and shall have smooth edges with no protruding material capable of hindering flow or catching and holding solids contained in the flow stream. If the service connection cannot be fully reopened due to time constraints, open each service connection to a minimum of 75% before the end of each working day. Partially opened service connections must be entirely opened by no later than the next working day.

L. Capped lateral connections shall not be reopened. Confirm the locations of all capped laterals during pre-construction CCTV inspections.

3.04 SEALING AT MANHOLES

A. Final trimming and sealing of the liner at manholes shall provide watertight pipe and manhole seals and shall not occur until at least 48 hours after completion of the cool-down period.

B. The finished ends of the liner shall be neat and smoothly trimmed to within two inches of host pipe end. Thoroughly seal all cut edges of the cured liner with the same resin as was used in the liner. The catalyst or hardener used shall be compatible with the resin/catalyst used in the liner previously, but shall not require an external heat source to begin the exothermic reaction (curing).

C. Form a tight seal between the CIPPL and the manhole wall at the pipe penetration. Do not leave any annular gaps. Seal any annular space greater than ½-inch with manhole wall repair material. Finish off the seal and seal any annular spaces less than ½-inch with urethane, grout or fiber reinforced cementitious material placed around the pipe opening from inside the manhole in a band at least 4-inches wide.

D. Provide a smooth transition between the existing manhole channel invert and the liner using cementitious or other approved material to prevent settling of sediments or debris from catching on the liner.

3.05 POST-CONSTRUCTION INSPECTION OF COMPLETED WORK

A. Provide Post-construction Inspection video documentation showing completed work after all mainline lining and lateral lining work for a given pipe segment has been completed.

B. Correct all defects discovered during the television inspection before Conditional Acceptance. After the defects are corrected, repeat the Post-construction Inspection for that sewer line.

C. Submit the Post-construction Inspection video to the ENGINEER in sufficient time to allow the ENGINEER to review the video prior to Conditional Acceptance.

3.06 FINAL CLEANUP

A. Upon completion of rehabilitation work and testing, clean and restore project area affected by the Work.

3.07 QUALITY CONTROL TESTS

A. For every two thousand five hundred (2,500) lineal feet of liner installed, two (2) flat plate samples shall be processed and tested. For pipe diameters less than 18 inches, restrained end samples may also be utilized. The CIPP physical properties shall be tested in accordance with ASTM F1216, Section 8, using either allowed sampling method. Sampling values shall be submitted to the Owner by the Installation Contractor for this project's CIPP wall design, whichever is greater.

B. For restrained samples, place a section of PVC pipe of the same diameter as the existing sewer on the tail end of the liner in the manhole. The length of PVC pipe shall be 2-feet plus 1.5 times the diameter of the existing sewer. Run the impregnated tube through the pipe and cure the CIPPL under restrained conditions. The center 2 feet of this liner will be used to obtain samples for testing. Label samples with the project number, date of installation, location, manhole number and specified thickness. Send samples to an independent laboratory approved by the ENGINNER for analysis as specified below and pay all laboratory fees. Provide a duplicate sample from the same pipe liner section to the ENGINEER, who may perform additional inspection and testing by a laboratory retained and paid for by the OWNER or ENGINEER.

C. The following tests shall be performed for each inversion of CIPPL lining installed.

1. Short-term Flexural (Bending) Properties – The initial tangent flexural modulus of elasticity and flexural yield strength shall be measures in accordance with ASTM D790.
2. Thickness shall be measured in accordance with ASTM D2122.

D. The following tests shall be performed once for each diameter of CIPPL installed. After installation of all CIPPLs, the ENGINEER will determine which manhole-to-manhole segments are to be tested:

1. Long-term Flexural Modulus of Elasticity shall be measured in accordance with ASTM D2990. Test shall be performed for 10,000 hours under test conditions and loadings applicable to this project.

E. The ENGINEER may, at any time, require the CONTRACTOR to sample resin from each liner and send it to an independent laboratory retained by the CONTRACTOR and approved by the ENGINEER for an Infrared Spectrophotometric analysis. The Spectrograph shall be generated by the same test method as employed by the resin supplier and shall include all components that will be incorporated into the final resin design. If the test results indicate that the resin is in compliance with this Specification and the approved shop drawings, the OWNER will pay for the laboratory fees out of the contingency allowance. If the test results indicate that the resin is not in compliance with this Specification and the approved shop drawings, the CONTRACTOR will pay all laboratory fees.

3.08 CIPPL ACCEPTANCE

A. Acceptance of the CIPPL shall be based on the ENGINEER's evaluation of the resin impregnation quality control reports, CIPPL temperature curing logs, Post-construction Inspection video, laboratory test results for the resin and installed pipe samples, which shall demonstrate:

1. Compliance with the required resin and CIPPL physical properties and CIPPL thickness.
2. Observed groundwater infiltration of the liner is zero.

3. All active service connections are open, clear and watertight.
4. There is no evidence of excessive wrinkles, splits, cracks, breaks, lifts, kinks, scalds, blisters, delaminations or crazing in the liner.

B. If any defective liner is discovered after it has been installed, it shall be removed and replaced with either a sound liner or a new pipe at no additional cost to the OWNER. Obtain approval of the ENGINEER for method of repair, which may require field or workshop demonstration.

3.09 WARRANTY INSPECTION

A. Provide a CCTV inspection 18 to 24 months after completion of CIPPL work showing all completed work. Actual period for inspection shall be determined by the ENGINEER and will ideally be conducted during high groundwater conditions. CONTRACTOR will be provided with a 60 days notice prior to period of inspection. Conduct all inspections in the presence of the ENGINEER.

B. Correct all defects discovered during the warranty period at no additional compensation. After the defects are corrected, inspect the sewer again at no additional compensation.

- END OF SECTION –

SECTION 02723 STORMWATER PIPE CLEANING AND INTERNAL TV INSPECTION

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. All applicable provisions of the Bidding and Contract Requirements, and Division 1-General Requirements shall govern the WORK under this section.

1.02 RELATED WORK

A. Section 15000 – Basic Mechanical Requirements.
B. Section 02630 – Storm Drain Facilities

1.03 SEQUENCE OF WORK

A. Clean storm sewer lines and maintenance access structures in accordance with this specification. The intent of storm sewer line cleaning is to remove all sludge, dirt, sand, rocks, grease, and other solids or semisolid material from the pipe so that defects are not obscured and to allow the water level to drop so that defects are visible. The pipe interior shall be clean enough to allow adequate viewing of the pipe during inspection. Since the success of the other phases of work depends a great deal on the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, OWNER shall be notified within 24 hours and shall direct CONTRACTOR on how to proceed with those specific storm sewer segments. If, in the course of normal cleaning operations, damage does result from pre-existing and unforeseen conditions such as broken pipe, CONTRACTOR will not be held responsible.

B. After cleaning, the pipe sections shall be visually inspected by means of closed circuit television.

1. Inspect storm sewer interior using WinCan or approved equal. Provide hard copy of inspection logs.

2. Additional TV inspections may be required at other stages of operation.

1.04 WORK HOURS

A. Work will be performed during the hours of 7:00 a.m. to 4:00 p.m., Monday through Friday, unless nighttime work is indicated because of flow conditions or traffic control requirements. Nighttime work must be approved by OWNER and scheduled in coordination with the OWNER.

1.05 ENTRY ONTO PRIVATE PROPERTY

A. Before any entry onto private property is made, CONTRACTOR shall obtain permission from resident or business owner or manager. If resident or business owner/manager is not available, then CONTRACTOR shall leave a project door hanger requesting resident or

business owner/manager to call CONTRACTOR to schedule a time for inspection. If CONTRACTOR encounters any difficulty in obtaining resident's or business owner/manager's permission to access the easement in order to perform the inspection, then CONTRACTOR shall contact OWNER for assistance. In such cases, CONTRACTOR shall provide a minimum of two weeks notice to the OWNER prior to the need to access private property. CONTRACTOR is responsible for scheduling work such that this two-week notification period does not interfere with the overall work schedule.

1.06 SAFETY

A. CONTRACTOR shall be solely responsible for safety during the performance of all Work. CONTRACTOR shall not enter into any storm sewer segment where hazardous conditions may exist until such time as the source of those conditions is identified and eliminated by CONTRACTOR and/or OWNER. CONTRACTOR shall perform all work in accordance with the latest OSHA confined space entry regulations. CONTRACTOR shall coordinate his work with local fire, police and emergency rescue units.

B. CONTRACTOR shall be responsible for any damage to public or private property resulting from their televising activities and shall repair or otherwise make whole such damage at no cost to OWNER.

C. Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles, and service connections by closed-circuit television inspection techniques.

PART 2 – MATERIALS AND EQUIPMENT

2.01 STORM SEWER LINE CLEANING EQUIPMENT

A. High-Velocity Hydraulic (Hydro-Cleaning) Equipment: Equipment shall be capable of removing dirt, grease, rocks, sand, roots, and other materials and obstructions from storm sewer lines and maintenance access structures.

B. Storm sewer line cleaning equipment shall have selection of two or more high-velocity nozzles.

C. Nozzles shall be capable of producing scouring action from 15 to 45 degrees in all size lines designated to be cleaned, with nozzle capable of producing flows from fine spray to solid stream.

D. Equipment shall carry its own water tank, auxiliary engines, and high pressure water pump.

E. Combination Unit Pump: Capable of pumping at least 80 gallons per minute (300 liters per minute) at 2,000 psi (13.8 MPa), measured at beginning of hose reel.

F. Water Pump: Able to run at 2,000 psi (13.8 MPa) while pulling full vacuum, completely independent from vacuum system, with ability to vary vacuum without affecting water pressure.

G. Do not use chemicals without written approval of the ENGINEER. Do not use chemical which may be considered hazardous or detrimental to organisms or equipment of wastewater treatment plant.

H. When water from fire hydrants is necessary, apply to OWNER for permission to use potable water source.

I. Provide temporary piping, valves, certified reduced pressure backflow preventors, equipment, and other items for handling potable water and wastewater.

J. Do not utilize water source until it has been approved for use by OWNER.

2.02 INTERNAL TELEVISION INSPECTION EQUIPMENT

A. DVD: 120 minute minimum, high-quality color, type DVD-R, DVD-RW, or DVD+R

1. Audio portion of composite DVD shall be sufficiently free from electrical interference and background noise to provide complete intelligibility of oral report.

2. Store in upright position with temperature range of 45 to 80 degrees F (7 to 27 degrees C) in an appropriate CD or DVD case to prevent scratches.

3. Identify each disk with tape labels showing Project's name, CONTRACTOR's name, and each maintenance access structure-to-maintenance access structure pipe segment of storm sewer line represented on DVD or provide an index or table of contents if more than one segment is on the disk.

B. Television Inspection Camera(s): Equipped with rotating head, capable of 90 degree rotation from horizontal and 360-degree rotation about its centerline.

1. Minimum Camera Resolution: 400 vertical lines and 460 horizontal lines.

2. Camera Lens: Not less than l40-degree viewing angle, with automatic or remote focus and iris controls.

3. Focal Distance: Adjustable through range of 6 inches (152 mm) to infinity.

4. Camera(s) shall be intrinsically safe and operative in 100 percent humidity conditions.

5. Lighting Intensity: Remote-controlled and adjusted to minimize reflective glare.

6. Lighting and Camera Quality: Provide clear, in-focus picture of entire inside periphery of storm sewer.

C. WinCAM or equal screen recording and editing application,

D. Footage Counter: Measures distance traveled by camera in storm sewer, accurate to plus or minus 2 feet (0.6 m) in 1,000 feet (305 m).

E. DVD Titling: Each segment shown on the DVD should have its own Chapter titled with the beginning and end point of the pipe segment.

F. Cable and Footage Counter: A minimum 1,500 feet of TV cable on the spool reel shall be provided. The TV cable will be supported by an equal length tag line for removal of the equipment from the pipeline.

PART 3 – EXECUTION

A. Submit letter that identifies methods that will be used to remove sediment, debris, grease, scale, encrustations, loose concrete, and roots throughout section of storm sewer to be cleaned. Include the following:

1. Detailed explanation of cleaning process.

2. Schedule of activities.

3. References where identified cleaning method has been used successfully in the past by CONTRACTOR.

4. List of the actions to mitigate impact during cleaning operation.

5. Provide traffic control measures as required by the jurisdiction in which the work is located. In compliance with or in addition to the jurisdiction's requirements, flashing lights shall be used for all night work.

B. Prior to pipe cleaning activities, CONTRACTOR is responsible for submitting a disposal plan for any removed sand and debris for review and approval by the City.

3.01 EXAMINATION

A. CONTRACTOR shall be aware of flow conditions, and be able to identify potential access problems to storm sewer access points.

3.02 APPLICATION

A. Clean designated storm sewer lines using approved methods and equipment.

1. Remove internal obstructions such as roots or gaskets by trenchless techniques when obstruction encountered prevents further pipe cleaning.

a. Provide special attention during cleaning operation to assure almost complete removal of roots from joints.
b. Procedures to remove internal obstructions may include use of equipment such as rodding machines, root saws, bucket machines and winches using root cutters, porcupines, and jet machines equipped with hydraulically driven cutters.

2. If cleaning of entire section cannot be successfully performed from one maintenance access structure, set up equipment at other maintenance access structure and attempt cleaning again.

    a. If successful cleaning cannot be performed or equipment fails to traverse entire storm sewer line section, it will be assumed that major blockage exists.
    b. Temporarily suspend cleaning effort and immediately notify the ENGINEER.
    c. Upon removal of obstruction, complete cleaning operation.

3. Employ satisfactory precautions to protect storm sewer line from damage that might be inflicted by improper use of cleaning equipment.

    a. Immediately notify the ENGINEER if fresh soil, pieces of pipe, or other visible signs of potential problems occur during cleaning operation.
    b. Insure that water pressure created does not cause damage due to flooding of property being served by storm sewer section(s) involved.

B. Maintenance access structure cleaning: Include entire maintenance access structure interior, including maintenance access structure benches and walls. Incorporate into line cleaning operation by scouring walls with high velocity nozzle after pipe segment cleaning operation is complete.

Do not discharge sewage or solids removed from downstream maintenance access structures, onto streets, or into ditches, catch basins or storm drains.

3.03 CLEANING

A. Keep premises free from accumulations of waste materials, rubbish and other debris resulting from work

B. Remove waste materials, rubbish, and debris from and about premises.

C. Remove tools, construction equipment and machinery, and surplus materials.

D. Restore to original condition portions of site not designated for alterations by Contract Documents.

3.04 INTERNAL TELEVISION INSPECTION: STORM SEWER FLOW REQUIREMENTS

A. Do not exceed depth of flow shown in Table 1 for respective pipe sizes as measured in maintenance access structure when performing TV inspection.

C. When depth of flow at upstream maintenance access structure of storm sewer line section being worked is above maximum allowable for TV inspection, reduce flow to level shown in Table 1, by plugging or blocking of flow, or by pumping and bypassing of flow as specified.

TABLE 1	
Maximum Depth of Flow for TV Inspection	
Nominal Pipe Diameter	**Maximum Depth of Flow**
6”-10”	15% of pipe diameter
12”-24”	20% of pipe diameter

3.05 INSPECTION REQUIREMENTS

A. Access: OWNER and/or the ENGINEER shall have access to observe monitor and other operations at all times.

B. DVD Commentary: Record and edit the following information using WinCam or equal: narrative of location, direction of view, maintenance access structure numbers, pipe diameter and material, date, time of inspection, and location of laterals and other key features.

1. DVD shall visually display this information at beginning and end of each maintenance access structure-to-maintenance access structure pipe segment.

2. DVD between maintenance access structures shall visually display length in feet from starting point of given segment.

C. Storm sewer Identification: DVD and inspection documentation shall include storm sewer line and maintenance access structure identifiers shown on Drawings.

D. Image Perspective: Camera image shall be down center axis of pipe when camera is in motion.

1. Provide 360-degree sweep of pipe interior at points of interest, to more fully document existing condition of storm sewer.

2. Points of interest may include, but are not limited to the following: defects, cracks, voids, connections, encrustations, mineral deposits, debris, sediment, and any location determined not to be clean or part of an improper liner installation, and defects in liner that include, but are not limited to bumps, folds, tears, and dimples.

3. Cabling system employed to transport camera and transmit its signal shall not obstruct camera's view.

E. Storm sewer Reach Length: Physically measure and record length of each storm sewer reach from centerline of its terminal maintenance access structures.

F. Inspection Rate: Camera shall be pulled through storm sewer in either direction, but both inspections are to be in same direction. Maximum rate of travel shall be 30 feet (9 m) per minute when recording.

G. If during television operation, television camera will not pass safely through entire storm sewer line section being investigated, CONTRACTOR shall, at no additional cost to OWNER, set up equipment so that inspection can be performed from opposite (downstream) maintenance access structure. Where an obstruction is encountered and a reverse set up is required, the distance shall be entered into the log and verbally noted on the DVD video from which maintenance access structure the measurements are being made. If under the reverse set-up the camera again fails to pass through the entire storm sewer line section, inspection shall be considered complete. All obstructions in the storm sewer segment that prohibit passage of the television camera shall be immediately reported to the ENGINEER by CONTRACTOR referencing location and nature of the obstruction. No rehabilitation work shall proceed until CONTRACTOR receives direction from OWNER regarding removal of the obstruction.

H. Should CONTRACTOR's televising equipment become lodged in any storm sewer line, it shall be removed by CONTRACTOR at his expense. This shall include, if necessary, excavation and repair of the storm sewer, underground utility repairs, backfilling and surface restoration. CONTRACTOR shall re-televise any line segment in which his equipment became lodged after said equipment has been removed to demonstrate to the OWNER that no damage exists as a result of his televising operations.

I. Should bypass pumping or other form of sewage flow control be required by/of CONTRACTOR to facilitate storm sewer line televising, CONTRACTOR shall be solely responsible for providing all labor, equipment and materials necessary to control the flow of sewage in and/or around storm sewer segment(s) being televised.

3.04 EVALUATION PROCEDURES

A. To evaluate if sags exist in the sanitary storm sewer pipe, water must be introduced into the pipe section to be televised. Pump/Add approximately 750 gallons of water into the terminal MAS or first upstream MAS to be cleaned and inspected. This volume of water can be modified based on the run of sanitary storm sewer pipe to be televised with the approval of the ENGINEER or OWNER (for example 10 to 50 gallons for a smaller section of pipe).

B. Once the cleaning nozzle reaches the upstream MAS, the water is to be turned off and then allow 15 minutes for the water introduced into the sanitary storm sewer pipe section to flow down before the line is televised.

3.07 FIELD QUALITY CONTROL

A. OWNER and/or the ENGINEER will review DVDs and logs to ensure compliance with requirements listed in this specification.

B. If storm sewer line, in sole opinion of OWNER and/or the ENGINEER, is not adequately clean, it shall be recleaned and the storm sewer line inspected by CONTRACTOR at no additional cost.

C. Quality Assurance: Submit one example DVD of previous storm sewer inspection work that shows operational and structural defects in storm sewers, complete with audio commentary and inspection log(s). Prior to submittal, finalize the DVD to prevent re-recording.

1. DVD and inspection logs will be reviewed to determine if quality of TV image is acceptable, and if defects were properly identified and documented.

2. Modify equipment and/or inspection procedures to achieve report material of acceptable quality.

3. Do not commence work prior to approval of report material quality by OWNER and/or the ENGINEER. Upon acceptance, report material shall serve as standard for remaining work.

D. Inspection Logs: Unless otherwise indicated, submit inspection logs that include the following as a minimum:

1. Project title

2. Name of BCWWS Project

3. Time of day

4. Zone atlas map number

5. Maintenance access structure to maintenance access structure pipe section

6. Upstream maintenance access structure number.

7. Downstream maintenance access structure number.

8. Pipe segment length

9. Pipe material

10. Line size

11. Compass direction of viewing

12. Direction of camera's travel

13. Pipe depth

14. Operator name

15. Tape counter reading at beginning and end of each maintenance access structure to maintenance access structure pipe segment.

16. Closest street address and street name on which storm sewer is located

17. Location (start and end counter distances in feet from the beginning maintenance access structure's centerline) and description of obstructions, structural defects, missing pieces of pipe, longitudinal and/or circumferential cracking, joint deterioration-including open and/or offset joints, ovality, leakage or evidence thereof, corrosion, erosion, break-in connections, protruding connections, mineral deposits, roots, previous repairs, grease/fats/oil deposits on pipe walls, sags, and other abnormalities with respect to the storm sewer's condition with counter distance in feet from the beginning maintenance access structure's centerline.

E. DVDs: Submit completed DVDs after cleaning. Prior to submittal, finalize the DVD to prevent re-recording. DVDs must be readable with standard viewing software such as Windows Media Player, and if a specific program is needed please submit for preapproval.

F. Maintain copy of all inspection documentation (DVDs, databases, and logs) for duration of Work and warranty period.

G. Digital Photographs: Digital format JPEG on standard CD or DVD photographs of all problems, severe defects or atypical observations shall be taken by CONTRACTOR or upon request of OWNER.

3.08 MEASUREMENT AND PAYMENT

A. Measurement and payment will be based on actual quantities installed as more specifically discussed and described in SECTION 01025 of MEASUREMENT AND PAYMENT.

- END OF SECTION -

12082-MULTI-DETL Tuesday, July 01, 2025

GENERAL NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES.
2. REFER TO SPECIFICATION SECTION 01001 AND 01520 FOR DETAILED REQUIREMENTS FOR SEQUENCE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.
3. SITE INFORMATION HAS BEEN PROVIDED BY SITE SURVEY PREPARED BY XXXX. SURVEYING, LLC DATED FEBRUARY 2013.
4. HORIZONTAL CONTROL IS REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
5. RECORD DRAWINGS USED FOR EXISTING FEATURES: XXXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.
6. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
7. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
8. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.
9. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED. THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
10. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT PHONE NUMBER 811 OR 1-800-432-4770 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
11. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN OR AROUND EXISTING CITY-OWNED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION WITHIN TEN FEET OF A CITY-OWNED UTILITY SO THAT A CITY REPRESENTATIVE MAY BE PRESENT.
12. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
13. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.

12082-MULTI-DETL Tuesday, July 01, 2025

14. DURING EXCAVATION AND PLACEMENT OF UTILITIES THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHEET PILING, SHORING AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO COMPLY WITH THESE REGULATIONS.
15. GROUNDWATER FROM ALL DEWATERING OPERATIONS SHALL BE DISCHARGED TO AN ENVIRONMENTALLY ACCEPTABLE LOCATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.
17. FOR REFERENCE MONUMENTS, SEE DRAWING (EX. CONDITIONS DWG # THAT SHOWS MONUMENTS).
18. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
19. THE UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY OR APPROVED EASEMENT. THE CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
20. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
21. ALL LOOP DETECTORS, COMMUNICATION CABLES AND CONDUITS, IF DAMAGED BY THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH BCTED AND FDOT REQUIREMENTS.
22. PIPING, FITTINGS, AND APPURTENANCES FOR DUCTILE IRON PIPE SHALL BE RESTRAINED JOINT WHERE SHOWN ON THE PLANS.
23. RESILIENT SEATED GATE VALVES WITH BEVEL TYPE GEAR SHALL BE INSTALLED IN HORIZONTAL ORIENTATION WHEN LESS THAN 7-FEET OF COVER FROM TOP OF PIPE IS PRESENT.
24. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM THE CITY OF FORT LAUDERDALE.
25. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN FOR WATER SERVICE AND WASTEWATER SERVICE DISRUPTION FOR APPROVAL 7 (SEVEN) CALENDAR DAYS PRIOR TO THE ANTICIPATED DISRUPTION. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK ON THEIR SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
26. THE CONTRACTOR MUST INFORM THE CITY AT LEAST 48-HOURS IN ADVANCE OF CONSTRUCTION, IN WRITING IF ANY CONFLICT IS DISCOVERED DURING POT HOLE OPERATIONS FOR CLARIFICATION BY THE CITY.
27. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITIES DEPARTMENT OF THE CITY OF FORT LAUDERDALE AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO COORDINATE ANY ACTIVITY TO BE PERFORMED BY THE CITY'S UTILITIES DEPARTMENT.

12082-MULTI-DETL Tuesday, July 01, 2025

28. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE EXISTING RIGHTS-OF-WAY.
29. ALL WORK WITHIN STATE DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS AND PERMIT REQUIREMENTS.
30. ALL WORK WITHIN BROWARD COUNTY RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH THE BROWARD COUNTY MINIMUM STANDARDS AND/OR REQUIREMENTS.
31. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CITY, COUNTY AND STATE REGULATIONS PERTAINING TO THE CLOSING OF PUBLIC STREETS FOR USE OF TRAFFIC DURING CONSTRUCTION.
32. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLANS TO FDOT, CITY OF FORT LAUDERDALE, BROWARD COUNTY AS REQUIRED FOR WORK TO BE DONE WITHIN THEIR R/W PRIOR TO COMMENCEMENT OF WORK. SPECFIC AGENCY MOT REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
33. CONTRACTOR SHALL SUBMIT MOT PLANS FOR APPROVAL BY THE CITY WHEN WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.
34. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND SHALL NOT BE CONSIDERED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.
35. THE GENERAL INTENT IS TO PROVIDE SEWER SERVICE LATERALS FOR EACH PROPERTY. ALL LATERAL LOCATIONS SHALL BE FIELD ADJUSTED.
36. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
37. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.
38. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, RESIDENTIAL AND COMMERCIAL SPRINKLER LINES, CONDUIT, CABLES, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
39. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.
40. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
41. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.
42. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAYED WITH ASPHALT.
43. EXISTING TRAFFIC SIGNS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS; COST SHALL BE INCIDENTAL.

12082-MULTI-DETL Tuesday, July 01, 2025

44. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL PRE-CONSTRUCTION CONDITION OR AS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
45. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS, AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
46. THE CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR CITY APPROVAL PRIOR TO ORDERING MATERIALS AND INSTALLATION.
47. EXISTING GAS MAINS SHALL BE IDENTIFIED BY THE APPROPRIATE UTILITY, PRIOR TO START OF CONSTRUCTION.

12082-MULTI-DETL Tuesday, July 01, 2025

TRAFFIC CONTROL PLAN NOTES:

1. THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-660. MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGLER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
2. THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE ENGINEER.
3. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
4. A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.
5. EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.
6. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.
8. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.
9. TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING DEPARTMENT.
10. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATS CERTIFIED.
11. THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH HOUR.

GNRL-004 - FDOT SCHOOL MOT NOTES Tuesday, September 20, 2016

FDOT SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE FOLLOWING AREAS WITHIN THE PROJECT LIMITS ARE DESIGNATED AS SAFE ROUTES TO SCHOOL BY THE BROWARD COUNTY SCHOOL BOARD (AREAS TO BE PROVIDED BY BCTED):
   A. DATA TO BE SUPPLIED BY BCTED
   B. DATA TO BE SUPPLIED BY BCTED
2. WITHIN THESE AREAS THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING REQUIREMENTS:
3. PROVIDE AT LEAST ONE SAFE, WALKABLE PATH THROUGHOUT THE CONSTRUCTION ZONE. IF THE EXISTING WALKING SURFACES CANNOT BE MAINTAINED, THEN A TEMPORARY PATH, A MINIMUM OF 4 FOOT WIDE, SHALL BE PROVIDED. THE SAFE WALK ROUTE SHALL ALSO BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS. THE CONTRACTOR SHALL ALSO INSTALL OR MODIFY ANY ADDITIONAL PAVEMENT MARKINGS, SIGNAGE OR PEDESTRIAN SIGNALS AS NEEDED IN CONJUNCTION WITH THE TEMPORARY PATH.
4. ON DAYS THAT SCHOOL IS IN SESSION, THE CONTRACTOR'S WORK SCHEDULE WITHIN THE SCHOOL ZONE MAY BE REDUCED BASEDON ACTUAL WORK ACTIVITIES IN THE SCHOOL ZONE. SEE MAINTENANCE OF TRAFFIC PLANS FOR DETAILS ON THE WORK ZONE RESTRICTIONS, IF WARRANTED. ANY CHANGES IN THE MAINTENANCE OF TRAFFIC WORK SCHEDULES WITHIN SCHOOL ZONES SHOULD BEDISCUSSED WITH THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING, (954) 847-2600.
5. ALL WORK REQUIRED AT DESIGNATED SCHOOL CROSSINGS AND PEDESTRIAN CROSSINGS SHALL BE RESTORED TO A SAFE WALKABLE PATH DURING ARRIVAL AND DISMISSAL TIMES.
6. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-600, TO DISCUSS ALL NECESSARY SAFETY MEASURES.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES.

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

8. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRECONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

GNRL-005 - BROWARD COUNTY SCHOOL MOT NOTES Tuesday, September 20, 2016

BROWARD COUNTY SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE MAINTENANCE OF TRAFFIC PLAN, PROVIDED BY THE CONTRACTOR, SHALL INCLUDE PROVISIONS FOR PEDESTRIAN AND/OR SCHOOL STUDENT TRAFFIC AS WELL AS VEHICULAR TRAFFIC. THE FOLLOWING ARE MINIMUM REQUIREMENTS:
2. THE SAFE WALK ROUTE FOR ALL SCHOOL STUDENTS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING STUDENT ARRIVAL AND DISMISSAL TIMES. IF THE CURRENT WALKING SURFACE CANNOT BE MAINTAINED, THEN A TEMPORARY WALKABLE SURFACE SHALL BE CREATED. THE SAFE WALK ROUTE SHALL BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS.
3. ALL CONSTRUCTION EQUIPMENT ACTIVITY AROUND ANY DESIGNATED CROSSWALK SHALL CEASE TO OPERATE DURING THE STUDENT ARRIVAL AND DISMISSAL TIMES. ALL CONSTRUCTION EQUIPMENT ACTIVITY ADJACENT TO A DESIGNATED WALK ROUTE SHALL CEASE OPERATING UNLESS SATISFACTORILY BARRICADED FROM THE WALK ROUTE.
4. IN THE CASE THAT A DESIGNATED CROSSING OR ANY PORTION OF THE DESIGNATED WALK ROUTE CANNOT BE MAINTAINED, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600. A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CLOSING THAT ROUTE IN ORDER TO ESTABLISH AN ALTERNATE CROSSING/ROUTE.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ANY NECESSARY PAVEMENT, ROAD ROCK, PAVEMENT MARKINGS AND SIGNAGE AND/OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN EXISTING OR ALTERNATE WALK ROUTE THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STATE CERTIFIED SCHOOL CROSSING GUARDS OR OFF DUTY POLICE OFFICERS TO CROSS STUDENTS AT ALL LOCATIONS OTHER THAN THOSE PREVIOUSLY DESIGNATED. THE CONTRACTOR MAY USE FLAGMEN, BUT ONLY IF THEY ARE STATE CERTIFIED AS A SCHOOL CROSSING GUARD.
7. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600 OR AT BROWARD@TRAFFIC.ORG TO DISCUSS ALL NECESSARY SAFETY MEASURES.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES:

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
DEPT. No: 65538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/02/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION
1	07/02/2025	JLS	DECF	ADDENDUM #2

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
STANDARD DETAILS - SHEET 1

SHEET NO. DT-01
SHT # 129
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

ISSUED FOR BID

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

DWG:001 - BROWARD COUNTY SCHOOL MOT NOTICE Tuesday, September 25, 2018

9. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRE-CONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN APPROVED MAINTENANCE OF TRAFFIC PLAN (MOT), SPECIFYING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS, THROUGH THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION OR THE LOCAL MUNICIPALITY, DEPENDING ON THE ROADWAY JURISDICTION. THE CONDITIONS OUTLINED IN THE MOT ARE FULLY EFFECTIVE AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL WORK ASSOCIATED WITH THE PROJECT IS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE APPROVED MOT.

11. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SPEED SCHOOL ZONE AT ANY TIME THROUGHOUT THE PROJECT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BROWARD COUNTY SCHOOL MOT NOTES SHEET 2	STDDWG. NO. GNRL 005 REVISED 2018/08/21

12082-MULTI-DETL Tuesday, July 01, 2025

BROWARD COUNTY COMMUNICATION NOTES:

1. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF THE MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS - COMMUNICATION INFRASTRUCTURE" DOCUMENT. PLEASE REFER TO (BCTED'S) COMMUNICATIONS POLICIES AND PROCEDURES FOR ADDITIONAL INFORMATION. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. IF FIBER OPTIC PULL BOXES ALREADY EXIST AT AN INTERSECTION, NO ADDITIONAL FIBER OPTIC PULL BOXES WILL NEED TO BE INSTALLED. FOR A COPY OF THESE STANDARDS REFER TO THE BROWARD COUNTY WEB SITE AT WWW.BROWARD.ORG/TRAFFIC UNDER PUBLICATIONS.

2. IF THERE ARE COPPER INTERCONNECT CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

3. IF THERE ARE FIBER OPTIC CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

4. IF THERE ARE CELLULAR COMMUNICATIONS WITHIN YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

5. ALL BCTED COMMUNICATIONS CABLES/CONDUIT SHALL BE LOCATED A MINIMUM OF 48 HOURS IN ADVANCE.

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
PROCEDURE FOR NOTIFICATION OF COMMUNICATION DISRUPTION

COPPER INTERCONNECT CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

FIBER OPTIC CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

UTILITY OWNER CONTACT PERSON:

INTERCONNECT COMMUNICATIONS CABLES - (ROBERT BLOUNT) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2745

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BROWARD COUNTY COMMUNICATION NOTES	STDDWG. NO. GNRL 006 REVISED 2018/08/21

DWG:007 - SCHOOL ZONE INSTALLATION REQUIREMENTS Tuesday, September 25, 2018

SCHOOL ZONE INSTALLATION REQUIREMENTS WITHIN BROWARD COUNTY:

1. THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE FOLLOWING MANUALS:

   A. THE FDOT DESIGN STANDARDS

   B. THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

   C. THE BROWARD COUNTY MINIMUM STANDARDS APPLICABLE TO PUBLIC RIGHTS-OF-WAY

2. FOR THE LATEST EDITION OF SCHOOL FLASHER DETAIL SHEETS AND MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIANS NOTES, SEE THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S WEB SITE AT:
   HTTP://WWW.BROWARD.ORG/TRAFFIC/PAGES/PUBLICATIONS.ASPX

3. THE "MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN" NOTES SHALL APPEAR ON THE PLAN AS INDICATED. DEPENDING ON THE JURISDICTION OF THE ROADWAY THE CONTRACTOR WILL UTILIZE EITHER THE BCTED OR FDOT VERSION, WHICH WILL BE DETERMINED BY THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED.

4. SCHOOL FLASHER PLANS ARE VALID FOR EIGHTEEN (18) MONTHS FROM DATE OF APPROVAL. AFTER THAT DATE, PLANS SHALL BE RESUBMITTED FOR APPROVAL.

5. NO SCHOOL FLASHER AND/OR ASSOCIATED EQUIPMENT SHALL BE PLACED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY OR ON PRIVATE PROPERTY WITHOUT THE PRIOR ACQUISITION OF THE NECESSARY TRAFFIC ENGINEERING EASEMENTS BY THE CONSULTANT/CONTRACTOR. THESE EASEMENTS SHALL BE LARGE ENOUGH TO ALLOW ACCESS TO THE TRAFFIC ENGINEERING EQUIPMENT BY TECHNICIANS AND BY LARGER VEHICLES WHICH MAY REQUIRE ACCESS TO THE EQUIPMENT. THE SIZE AND LOCATION OF THE EASEMENTS WILL BE DETERMINED ON A CASE-BY-CASE BASIS. THE EASEMENTS SHALL BE RECORDED DOCUMENTS AND A COPY OF THE FULLY EXECUTED RECORDED EASEMENT SHALL BE PROVIDED TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR PRIOR TO INSTALLATION.

6. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED FOR APPROVAL, ALL OF THE EQUIPMENT SPECIFICATIONS (I.E. SHOP DRAWINGS) FOR ALL MATERIALS PROPOSED FOR THE PROJECT. SEE SECTION 603 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR SUBMITTAL DATA REQUIREMENTS. INCLUDED IN THE SUBMITTAL SHALL BE SHOP DRAWINGS FOR GROUND MOUNT AND/OR MAST ARM DETAILS, AS APPLICABLE.

7. IF ELECTRICAL SERVICE IS REQUIRED, THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO BCTED, SYSTEMS SECTION - DESIGN ENGINEER, TO PROVIDE BILLING AUTHORIZATION TO FPL. THIS IS REQUIRED BEFORE ELECTRICAL SERVICE CAN BE OBTAINED. THE REQUEST SHALL INCLUDE A STATEMENT CERTIFYING THAT THIS ELECTRICAL INSTALLATION MEETS OR EXCEEDS ALL APPLICABLE REQUIREMENTS OF ALL APPLICABLE CODES AND IS NOW READY FOR CONNECTION TO FPL FACILITIES. ALSO INCLUDE THE DATE SERVICE IS REQUIRED BY IN THE REQUEST.

8. THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED EITHER BY FAX; 954-847-2700 OR E-MAIL; TRAFFIC@BROWARD.ORG TO SCHEDULE AN INSPECTION OF THE COMPLETE INSTALLATION, INCLUDING THE INTERIM SIGNING AND PAVEMENT MARKING PLAN. ACTIVATION OF THE FLASHERS SHALL ONLY BE PERMITTED AFTER SAID INSPECTION.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SCHOOL ZONE INSTALLATION REQUIREMENTS SHEET 1	STDDWG. NO. GNRL 007 REVISED 2018/08/21

DWG:007 - SCHOOL ZONE INSTALLATION REQUIREMENTS Tuesday, September 25, 2018

9. THE CONTRACTOR SHALL PROVIDE SIX (6) SETS OF MARKED UP (AS-BUILT) CONSTRUCTION PLANS TO THE ENGINEER AND BCTED AS DEFINED IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 611, SEVEN (7) DAYS PRIOR TO SCHOOL FLASHER CONDITIONAL ACCEPTANCE INSPECTION BY BCTED. THE CONTRACTOR SHALL ALSO PROVIDE TWO SETS OF AS-BUILT PLANS TO BCTED SIGNAL TECHNICIAN AT THE TIME OF INSPECTION. TWO COPIES OF CABINET PRINTS, TWO SETS OF CABINET KEYS AND PAGER/TIME SWITCH OPERATION MANUALS FOR EACH LOCATION SHALL ALSO BE TURNED OVER AT THIS TIME.

10. THE CONTRACTOR IS ADVISED THAT THE PRESENCE OF OVERHEAD ELECTRICAL CONDUCTORS IN CLOSE PROXIMITY TO THE LOCATIONS OF PROPOSED SCHOOL FLASHERS MAY LIMIT THE TYPE OF EQUIPMENT THAT CAN BE USED IN CONSTRUCTION OF THE SCHOOL FLASHER. THE CONTRACTOR SHALL COORDINATE WITH FPL TO DEACTIVATE LINES IF NECESSARY.

11. ALL SIGN ASSEMBLIES SHOWN OR NOTED ON THE PLAN SHEETS FOR REMOVAL SHALL BE DELIVERED TO THE BCTED OPERATIONS BUILDING, 2300 WEST COMMERCIAL BLVD., FORT LAUDERDALE. EXISTING FLASHERS ARE NOT TO BE REMOVED UNTIL AFTER THE NEW UNIT HAS PASSED ITS FINAL INSPECTION.

12. SIGN LOCATIONS MAY BE VARIED IN THE FIELD AS NECESSARY IN ORDER TO AVOID CONFLICTS WITH UNFORESEEN OBSTACLES, DRIVEWAYS, ETC. ANY SIGN LOCATION VARIATIONS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHOWN ON THE AS BUILTS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SCHOOL ZONE INSTALLATION REQUIREMENTS SHEET 2	STDDWG. NO. GNRL 007 REVISED 2018/08/21

12082-MULTI-DETL Tuesday, July 01, 2025

DRAINAGE NOTES:

1. DRAINAGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) OR REINFORCED CONCRETE (RCP), THE USE OF RCP PIPE FOR PUBLIC ROADWAY CROSSINGS IS PREFERRED.

2. CATCH BASINS, INLETS AND JUNCTION BOXES SHALL NOT BE INSTALLED IN DRIVEWAYS.

3. PRIOR TO BACKFILLING EXFILTRATION TRENCHES, DRAINAGE INLETS OR MANHOLES, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING INSPECTOR FOR AN INSPECTION.

4. DRAINAGE STRUCTURES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY CITY.

5. ALL PIPES SHALL BE LAID IN DRY TRENCH. ALL MUCK OR UNSUITABLE MATERIALS IN TRENCHES, INLETS OR MANHOLES SHALL BE REMOVED AND BACKFILLED WITH SELECTED MATERIAL APPROVED BY THE ENGINEER.

6. MINIMUM COVER FOR HDPE PIPE UNDER ASPHALT SHALL BE 24-INCH COMPACTED LIMEROCK BASE. MINIMUM COVER FOR PIPE UNDER GRASS SHALL BE 18" COMPACTED SUBGRADE.

7. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.

8. MAINTENANCE ACCESS SHALL BE PROVIDED ON BOTH SIDES OF EXFILTRATION TRENCHES IN THE FORM OF MANHOLES OR CATCH BASINS. THE MAXIMUM DISTANCE BETWEEN STORM STRUCTURES SHALL NOT EXCEED TREE HUNDRED (300) FEET).

9. ALL EXFILTRATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION DOCUMENT TITLED "DRAINAGE DESIGN GUIDE", LATEST EDITION.

10. GEOTEXTILE MATERIALS USED IN THE CONSTRUCTION OF EXFILTRATION TRENCHES SHALL BE IN ACCORDANCE WITH THE CRITERIA OF FLORIDA DEPARTMENT OF TRANSPORTATION'S DESIGN STANDARDS LATEST EDITION AND CITY OF FORT LAUDERDALE'S SPECIFICATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DRAINAGE NOTES	STDDWG. NO. GNRL 008 REVISED 2017/07/13

12082-MULTI-DETL Tuesday, July 01, 2025

DEMOLITION NOTES:

GENERAL DEMOLITION SPECIFICATIONS:

1. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.

2. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MIGHT IMPACT THE WORK.

3. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.

4. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.

5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.

6. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.

7. THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE DRAWINGS INDICATE THE SCOPE OF DEMOLITION WHERE DEMOLITION IS REQUIRED.

   7.1. DEMOLITION AND REMOVAL OF A 5' MIN.± STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.

   7.2. REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.

8. PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SANITATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.

9. PROTECT ALL UTILITIES, UNLESS OTHERWISE NOTED.

10. ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW CUT CLEAN PRIOR TO REMOVAL.

11. WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).

12. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON-SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DEMOLITION NOTES SHEET 1	STDDWG. NO. GNRL 009 REVISED 2017/07/13

12082-MULTI-DETL Tuesday, July 01, 2025

13. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ON THE DRAWINGS ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.

14. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY ELECTRICAL, TELEPHONE, CABLE AND/OR GAS LINES. SUFFICIENT TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.

15. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.

16. FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL PASS THROUGH A THREE-INCH RING.

17. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.

18. MAINTAIN ACCESS TO SURROUNDING PROPERTIES AND BUILDINGS.

19. PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

20. ALL TRAFFIC SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.

21. ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO FIVE-FEET BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.

22. ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY WITH THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

23. ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DEMOLITION NOTES SHEET 2	STDDWG. NO. GNRL 009 REVISED 2017/07/13

ISSUED FOR BID

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
FLORIDA LIC. No: 85538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DATE: 07/02/2025
DESIGNED BY: DECF
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 2

REVISIONS

NO.	DATE	BY	CH'D	DESCRIPTION
1	07/02/2025	JLS	DECF	ADDENDUM #2

SHEET NO. DT-02
SHT # 130
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

June 22, 2022

DECISION MEMORANDUM

SUBJECT: Program Waiver of Section 70914(a) of P.L. 117-58, Buy America, Build America Act, 2021 for Projects in Design Planning

FROM: Radhika Fox
Assistant Administrator

Introduction

The nation's water infrastructure is decades old, with some systems tracing their construction back a century. Over the past 30 years, the federal government's investment in water infrastructure has plummeted, leaving us with pipes, water plants, and pumps at the end of their lifespans. Water utilities are stuck between a rock and a hard place. Cities desperately need to upgrade infrastructure but doing that alone could lead to rate increases and make water inaccessible for our most vulnerable neighbors**.**

With the need for such investment apparent, Congress passed the Build America, Buy America Act (BABAA) concurrently with the Infrastructure Investment and Jobs Act (IIJA) in November 2021. This is a transformational opportunity to build a resilient supply chain and manufacturing base for critical products here in the United States and will catalyze new and long-term investment in good-paying American manufacturing jobs and businesses. The U.S. Environmental Protection Agency's (EPA) efforts to implement BABAA will help cultivate the domestic manufacturing base for a wide range of products that we know are commonly used across the water sector but not made domestically. EPA, and specifically the Office of Water, is in a strong position to implement BABAA as smoothly as possible, building on a very successful and sophisticated near decade of implementing the American Iron and Steel (AIS) requirements. This will take time, and flexibility will be important to ensure that we can leverage water investments on time and on budget.

Program Waiver

EPA hereby grants a program waiver of the requirements of Section 70914(a) of the IIJA (BABAA), pursuant to Section 70914(b)(1) (public interest waiver), for eligible projects to be financed by the Water Infrastructure Finance and Innovation Act (WIFIA) program that have initiated project design planning prior to May 14, 2022, the effective date of BABAA requirements as OMB's guidance includes WIFIA as a program covered by BABAA.

Applicability of Existing Domestic Preference Requirements

This waiver does not depend upon the cost or non-availability of U.S. products. This waiver action permits the use of non-domestic iron, steel, manufactured products, and construction materials in such projects **that may otherwise be prohibited under Section 70914(a)**, while prospective borrowers incorporate the new BABAA requirements. The WIFIA program has existing domestic preference requirements for WIFIA loan recipients under 33 U.S.C. §3914 (AIS requirements) to install iron and steel products that are produced in the United States. **This program waiver does not waive WIFIA's AIS requirements.** WIFIA loan recipients will continue to follow the existing AIS requirements for their projects. Products covered under the AIS requirements are primarily iron and steel (i.e., greater than 50 percent iron or steel in material costs), permanently incorporated into the project, and are limited to:

- Lined or unlined pipes and fittings
- Manhole covers and other municipal castings
- Hydrants
- Tanks
- Flanges
- Pipe clamps and restraints
- Valves
- Structural steel
- Reinforced precast concrete
- Construction materials

These listed products are identified by Congress within the WIFIA statute as commonly used iron and steel products in water infrastructure projects. Based on eight successful years of AIS implementation for the State Revolving Fund (SRF) and WIFIA programs, EPA expects that projects subject to this waiver will obtain almost all of their iron and steel products from domestic sources. EPA also expects that most items that are not iron or steel products will fall under manufactured products or construction materials.

Conditional and Target-Limited

This waiver covers projects that have initiated design planning prior to May 14, 2022, the effective date of BABAA requirements. For purposes of this waiver, "initiated project design planning" means efforts made by the utility owner to evaluate and identify both technologically and financially viable options for capital improvement projects. These efforts can be in various forms of technical documents describing design concepts, alternatives analyses, and long-term facility or system plans. Examples include preliminary engineering reports, master plans, basis of design reports, and technical design memorandum.

Program-Wide Scope

The WIFIA program's federal loan structure and funding procedures necessitates a program waiver to cover projects that receive WIFIA funding and meet the conditions of the waiver.

In WIFIA's funding process, the amount of federal loans made available for WIFIA lending is dictated by annual appropriations of risk subsidy to the program. Following an appropriation, the WIFIA

program issues a Notice of Funding Availability (NOFA) that initiates a competitive project selection process to invite prospective borrowers, followed by a loan application review process. Projects may enter WIFIA's funding process at every level of design planning. The level of design is not known by the WIFIA program until after the NOFA is issued and detailed project information is submitted, but in most of the cases the projects are at a planning design stage that makes it impractical to retroactively apply purchasing requirements. The table below provides a sample of projects from our existing funding pipeline that are in various levels of design planning and are typical of the types of projects that would be subject to this waiver.

Project Name	**Level of Design**
Wastewater Project Delivery Program	Design builder procured, 50% design
Sewer Lift Station and Force Main Project	Design builder procured, 50% design
Dam Replacement Project	Design complete
Drinking Water Reliability Project	Near Construction
Plant Effluent Outfall Tunnel	Under Construction

It is not possible for the WIFIA program to predict the number of, and the level of design and planning from, prospective projects that will enter the funding process. However, the program expects similar project impacts for both current and prospective borrowers, which are further described below. By end of calendar year 2022, the WIFIA program will have over 100 loans in various stages of WIFIA's funding process.

Anticipated Program and Project Impacts Absent a Waiver

Utilities that began planning prior to the issuance of OMB's final guidance did so with no knowledge that a future domestic sourcing requirement would apply to WIFIA loans. Without such knowledge, they did not have the opportunity to plan for such requirements and may have to reevaluate design alternatives and potentially redesign elements of their projects, investigate potential domestic products, revise engineering drawings and bid specifications, and resubmit plans and specifications for State or local approval, thereby delaying the initiation of construction, and increasing project costs and schedule substantially. Absent a waiver, EPA believes that utilities may decline cheaper federal funds in favor of more expensive sources of financing to minimize such impacts.

Re-evaluation of Design Decisions

Utilities expend a tremendous amount of effort prior to submitting detailed letters of interest to the WIFIA program. The costs for this planning in both local funds and staff hours can approach $100 million for the largest of WIFIA's projects and oftentimes involve projects in planning, design, and even early construction and mobilization activities.

It is common for planning and development of complex projects to begin years prior to construction. This process often includes estimation of project benefits and costs to evaluate design alternatives and, in many cases, involves complex environmental assessments, site reviews, and prioritization efforts. Although these early stages of project planning and design may be performed years in advance of construction, they incorporate, and are influenced by, the expected availability of supplies, materials, manufactured products, equipment, packaged technological solutions, and even siting options. Design and construction of these projects are carefully choreographed and interdependent processes. Imposing new conditions on the tail end of the process may require costly re-evaluation of earlier decisions on which the whole project is based.

For example, one WIFIA borrower invested four years conducting studies, alternatives evaluation, site selection, environmental permitting, and technology assessments that resulted in the chosen project approach and the Basis for Design, that then took one year to progress to Final Design before construction could begin. All these years of work were informed by an early decision to use a particular Ballasted Flocculation technology half a decade before construction began and with the project designed and the site selected around this major equipment. Had a BABAA requirement subsequently applied, significant costs and effort would be needed to re-evaluate BABAA-compliant technology alternatives and assess the implications of design alterations on the overall constructability of the project. Another WIFIA project currently in the funding pipeline raised concerns on the lack of known domestic alternatives that could substitute for the main components in the project, and should BABAA requirements apply, EPA anticipates utilities would forgo federal funding as re-designing and finding domestic alternatives may not be possible.

Increased Project and Construction Costs

For some projects, redesign of the project would result in dramatic increases in planning, design, and construction costs. A project in California needed to extend the operating life of existing facilities and continue to reliably meet environmental and regulatory requirements. The engineer of record for the project reviewed the design documents to identify what may be needed to have the project comply with BABAA, and their conclusion is that it is uncertain if compliance would even be possible for this already-designed project without a major redesign that could increase construction cost by approximately $40 million (11 percent) and delay the project by 22 months. Another project in Missouri estimates that complying with BABAA requirements would add about $100 million (17 percent) to their project and that achieving compliance with the increase in costs is uncertain.

Requiring projects in design planning to undergo a re-evaluation of their plans to comply with BABAA may lead to significant cost and schedule increases for much needed infrastructure. Furthermore, changes in design, treatment plant equipment, and materials would require communities with approved permits to resubmit plans and specifications for State or local approval. Required adjustments will delay the initiation of construction and increase project costs and schedule by months. Based on WIFIA's conversations with impacted borrowers, EPA believes this would substantially derail the infrastructure investment efforts already made by utilities.

Delay in Compliance with Clean Water Act and Safe Drinking Water Act Requirements

The country faces unprecedented challenges with aging drinking water and wastewater treatment plants and distribution systems that have far exceeded their useful life. Many facilities need to make improvements to their system to return their community to compliance with the Clean Water Act or Safe Drinking Water Act. Communities that are required to redesign systems will not only face increased planning, design, and construction costs, but may ultimately delay and perhaps even prevent some improvements necessary to meet requirements.

Such delays conflict with EPA's, as well as prospective borrowers', interest in investing in the nation's water infrastructure and initiating construction in an expeditious and efficient manner, results antithetical to the goals of the IIJA. This further prevents the utilities' ability to timely address compliance issues under the Clean Water Act and Safe Drinking Water Act and adversely impacts the protection of public health and the environment. For many of these projects, planning and design activities will have already begun to meet stringent federal and state regulations with court-enforced

deadlines. A majority of WIFIA projects are being implemented to meet regulatory requirements or resolve public health or environmental violations or enforcement actions.

A Decline in the Use of Federal WIFIA Funds

Utilities faced with a need to re-design and re-permit projects may decline cheaper federal funds in favor of more expensive sources of financing to minimize such impacts. By declining to use WIFIA as a funding source, no domestic preference for American iron and steel will be required, potentially leading to a reduction in the use of domestic iron and steel. Similarly, the intended long-term benefits of BABAA implementation will be missed. This program waiver seeks to provide a reasonable transition period for BABAA implementation while minimizing impacts to projects.

Program Implementation Considerations

As the transition period advances, the WIFIA program anticipates fewer projects to fall under the scope of this program waiver. To encourage the use of domestic products, the WIFIA program will provide incentives to utilities in future funding rounds through its selection criteria. Projects that voluntarily implement BABAA requirements regardless of the waiver will increase their likelihood of selection.

EPA's implementation of AIS requirements for the SRF and WIFIA programs has assured almost all iron and steel products in water, wastewater, and stormwater infrastructure projects are domestically sourced. However, the domestic availability of other non-ferrous construction materials and manufactured products incorporated in projects is largely unknown at this time. The list of items included on these projects can be vast. For example, a WIFIA project bid tabulation for a typical project listed approximately 9,000 unique items, with most of those listing construction materials, equipment, or manufactured goods.

To further support the administration's priorities to steward investments to build a better America and promote domestic manufacturing and jobs, the WIFIA program will aim to collect information from projects covered by this waiver to help evaluate the domestic market availability of commonly used infrastructure products.

Waiver Decision

Section 70914(b)(1) of the IIJA authorizes the Administrator to waive the requirements of Section 70914(a) in any case or category of cases in which he finds that such action would be in the public interest, consistent with the reasoning herein. Due to the critical need to repair and upgrade our nation's water infrastructure in a timely and cost-effective manner, and the foregoing reasons, waiving BABAA requirements on eligible projects of prospective borrowers that initiated project design plans prior to May 14, 2022, is in the public's interest.

If you have any questions concerning the contents of this memorandum, please contact Alejandro Escobar, Chief, Technical Support Branch, at escobar.alejandro@epa.gov or (202) 564-9047.

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB No. 461

TITLE: Victoria Park Stormwater Improvements

ADDENDUM NO.3

DATE: 07/7/2025

This addendum is being issued to: Respond to Question posed by Man-Con Incorporated

Question from Man-Con Incorporated

Since allowance accounts are included in the executed contract's Schedule of Values, they should be eligible for bond and insurance markup. Please clarify the City's preference regarding these costs: Would the City prefer that the contractor apply bond and insurance costs proportionally to each reimbursement invoice billed against the allowance items, or should the contractor carry the full bond and insurance costs for the total allowance amount—regardless of whether the full amount is utilized—as part of the bidder's General Conditions.

Response

The Bid Allowances are for the intended purpose as indicated in the solicitation. Bond and Insurance is not one of the listed items, thus the bidder's cost for bond and insurance should be incorporated into their bid price in a manner determined to be appropriate by the bidder.

All other terms, conditions and specifications remain unchanged.

Paulette Hemmings Turner
Snr. Purchasing Specialist

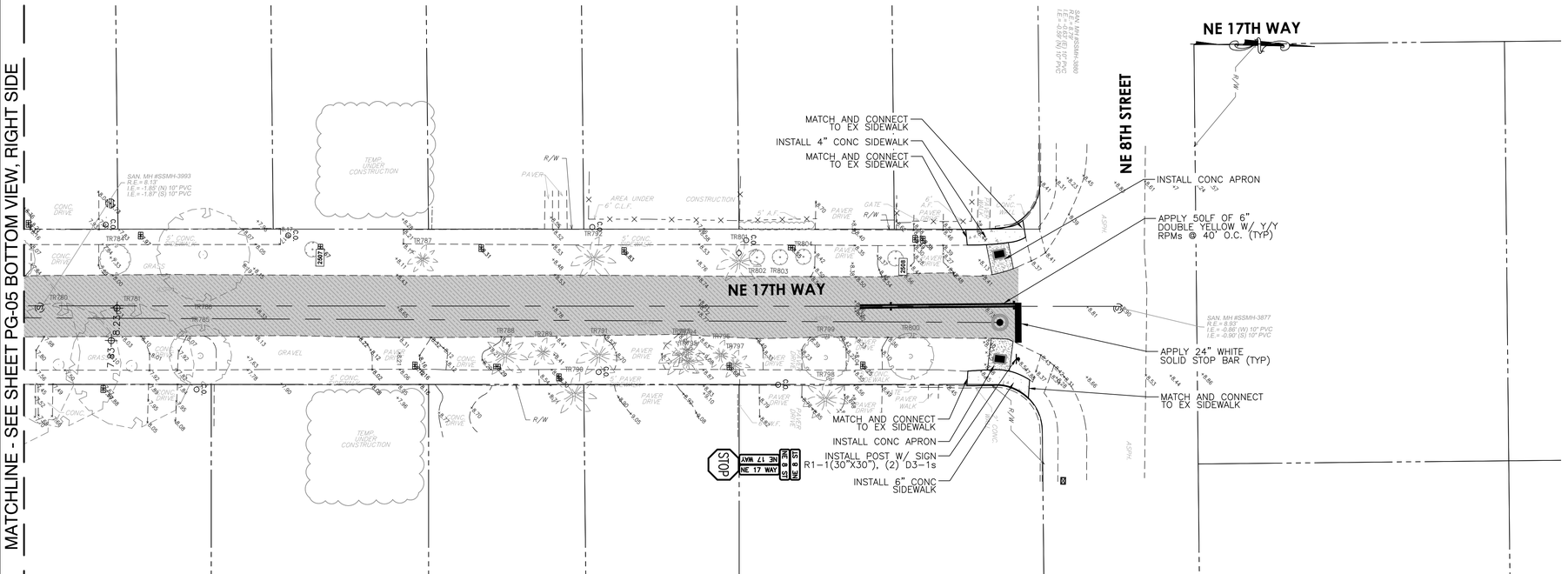
Company Name: _____
(Please print)

Bidder's Signature: _____

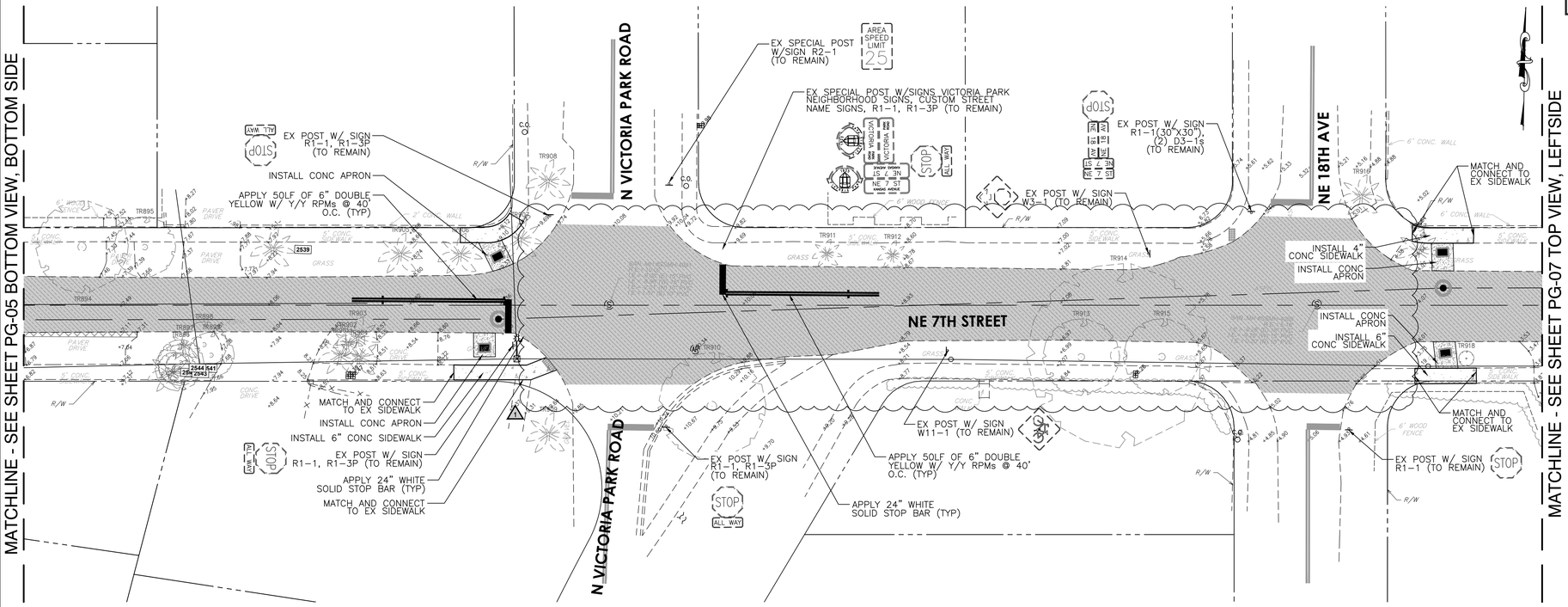
Date: _____

BCTED # 250411060

MATCHLINE - SEE SHEET PG-05 BOTTOM VIEW, RIGHT SIDE



MATCHLINE - SEE SHEET PG-05 BOTTOM VIEW, BOTTOM SIDE



MATCHLINE - SEE SHEET PG-07 TOP VIEW, LEFTSIDE

ISSUED FOR BID

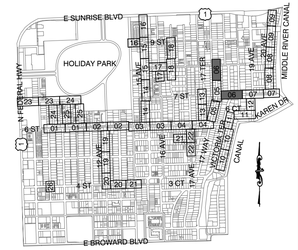
RESTORATION HATCH LEGEND:

- ASPHALT PAVEMENT
- CONCRETE
- PAVER BRICKS
- GRAVEL
- MILL & RESURFACE
- GRASSY SWALE

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

0 20' 40'



Sunshine811
Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.
Check positive response codes before you dig!

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 85558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DATE: 07/09/2025 | DESIGNED BY: DECF | SCALE: AS SHOWN | CHECKED BY: JJM | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHKD	DESCRIPTION
1	07/09/2025	CMM	DECF	ADDENDUM #4

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
PAVING AND GRADING PLAN

SHEET NO. PG-06 | SHT # 104
TOTAL: 233
CAD FILE: 12082–MULTI–GRAD
DRAWING FILE NO. 4–144–88

12082-MULTI-DETL Wednesday, July 09, 2025

GENERAL NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES.
2. REFER TO SPECIFICATION SECTION 01001 AND 01520 FOR DETAILED REQUIREMENTS FOR SEQUENCE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.
3. SITE INFORMATION HAS BEEN PROVIDED BY SITE SURVEY PREPARED BY XXXX. SURVEYING, LLC DATED FEBRUARY 2013.
4. HORIZONTAL CONTROL IS REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
5. RECORD DRAWINGS USED FOR EXISTING FEATURES: XXXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.
6. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
7. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
8. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.
9. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED. THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
10. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT PHONE NUMBER 811 OR 1-800-432-4770 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
11. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN OR AROUND EXISTING CITY-OWNED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION WITHIN TEN FEET OF A CITY-OWNED UTILITY SO THAT A CITY REPRESENTATIVE MAY BE PRESENT.
12. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
13. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 1 | STDDWG. NO. GNRL 001 | REVISED 2017/07/19

12082-MULTI-DETL Wednesday, July 09, 2025

14. DURING EXCAVATION AND PLACEMENT OF UTILITIES THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHEET PILING, SHORING AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO COMPLY WITH THESE REGULATIONS.
15. GROUNDWATER FROM ALL DEWATERING OPERATIONS SHALL BE DISCHARGED TO AN ENVIRONMENTALLY ACCEPTABLE LOCATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.
17. FOR REFERENCE MONUMENTS, SEE DRAWING (EX. CONDITIONS DWG # THAT SHOWS MONUMENTS).
18. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
19. THE UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY OR APPROVED EASEMENT. THE CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
20. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
21. ALL LOOP DETECTORS, COMMUNICATION CABLES AND CONDUITS, IF DAMAGED BY THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH BCTED AND FDOT REQUIREMENTS.
22. PIPING, FITTINGS, AND APPURTENANCES FOR DUCTILE IRON PIPE SHALL BE RESTRAINED JOINT WHERE SHOWN ON THE PLANS.
23. RESILIENT SEATED GATE VALVES WITH BEVEL TYPE GEAR SHALL BE INSTALLED IN HORIZONTAL ORIENTATION WHEN LESS THAN 7-FEET OF COVER FROM TOP OF PIPE IS PRESENT.
24. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM THE CITY OF FORT LAUDERDALE.
25. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN FOR WATER SERVICE AND WASTEWATER SERVICE DISRUPTION FOR APPROVAL 7 (SEVEN) CALENDAR DAYS PRIOR TO THE ANTICIPATED DISRUPTION. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK ON THEIR SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
26. THE CONTRACTOR MUST INFORM THE CITY AT LEAST 48-HOURS IN ADVANCE OF CONSTRUCTION, IN WRITING IF ANY CONFLICT IS DISCOVERED DURING POT HOLE OPERATIONS FOR CLARIFICATION BY THE CITY.
27. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITIES DEPARTMENT OF THE CITY OF FORT LAUDERDALE AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO COORDINATE ANY ACTIVITY TO BE PERFORMED BY THE CITY'S UTILITIES DEPARTMENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 2 | STDDWG. NO. GNRL 001 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

28. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE EXISTING RIGHTS-OF-WAY.
29. ALL WORK WITHIN STATE DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS AND PERMIT REQUIREMENTS.
30. ALL WORK WITHIN BROWARD COUNTY RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH THE BROWARD COUNTY MINIMUM STANDARDS AND/OR REQUIREMENTS.
31. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CITY, COUNTY AND STATE REGULATIONS PERTAINING TO THE CLOSING OF PUBLIC STREETS FOR USE OF TRAFFIC DURING CONSTRUCTION.
32. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLANS TO FDOT, CITY OF FORT LAUDERDALE, BROWARD COUNTY AS REQUIRED FOR WORK TO BE DONE WITHIN THEIR R/W PRIOR TO COMMENCEMENT OF WORK. SPECFIC AGENCY MOT REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
33. CONTRACTOR SHALL SUBMIT MOT PLANS FOR APPROVAL BY THE CITY WHEN WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.
34. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND SHALL NOT BE CONSIDERED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.
35. THE GENERAL INTENT IS TO PROVIDE SEWER SERVICE LATERALS FOR EACH PROPERTY. ALL LATERAL LOCATIONS SHALL BE FIELD ADJUSTED.
36. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
37. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.
38. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, RESIDENTIAL AND COMMERCIAL SPRINKLER LINES, CONDUIT, CABLES, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
39. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.
40. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
41. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.
42. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAYED WITH ASPHALT.
43. EXISTING TRAFFIC SIGNS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS; COST SHALL BE INCIDENTAL.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 3 | STDDWG. NO. GNRL 001 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

44. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL PRE-CONSTRUCTION CONDITION OR AS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
45. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS, AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
46. THE CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR CITY APPROVAL PRIOR TO ORDERING MATERIALS AND INSTALLATION.
47. EXISTING GAS MAINS SHALL BE IDENTIFIED BY THE APPROPRIATE UTILITY, PRIOR TO START OF CONSTRUCTION.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 4 | STDDWG. NO. GNRL 001 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

TRAFFIC CONTROL PLAN NOTES:

1. THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-660. MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGLER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
2. THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE ENGINEER.
3. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
4. A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.
5. EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.
6. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.
8. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.
9. TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING DEPARTMENT.
10. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOTS TO BE ATS CERTIFIED.
11. THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH HOUR.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | TRAFFIC CONTROL PLAN NOTES | STDDWG. NO. GNRL 002 | REVISED 2017/07/13

GNRL-004 - FDOT SCHOOL MOT NOTES Tuesday, September 25, 2018

FDOT SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE FOLLOWING AREAS WITHIN THE PROJECT LIMITS ARE DESIGNATED AS SAFE ROUTES TO SCHOOL BY THE BROWARD COUNTY SCHOOL BOARD (AREAS TO BE PROVIDED BY BCTED):
   A. DATA TO BE SUPPLIED BY BCTED
   B. DATA TO BE SUPPLIED BY BCTED
2. WITHIN THESE AREAS THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING REQUIREMENTS:
3. PROVIDE AT LEAST ONE SAFE, WALKABLE PATH THROUGHOUT THE CONSTRUCTION ZONE. IF THE EXISTING WALKING SURFACES CANNOT BE MAINTAINED, THEN A TEMPORARY PATH, A MINIMUM OF 4 FOOT WIDE, SHALL BE PROVIDED. THE SAFE WALK ROUTE SHALL ALSO BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS. THE CONTRACTOR SHALL ALSO INSTALL OR MODIFY ANY ADDITIONAL PAVEMENT MARKINGS, SIGNAGE OR PEDESTRIAN SIGNALS AS NEEDED IN CONJUNCTION WITH THE TEMPORARY PATH.
4. ON DAYS THAT SCHOOL IS IN SESSION, THE CONTRACTOR'S WORK SCHEDULE WITHIN THE SCHOOL ZONE MAY BE REDUCED BASEDON ACTUAL WORK ACTIVITIES IN THE SCHOOL ZONE. SEE MAINTENANCE OF TRAFFIC PLANS FOR DETAILS ON THE WORK ZONE RESTRICTIONS, IF WARRANTED. ANY CHANGES IN THE MAINTENANCE OF TRAFFIC WORK SCHEDULES WITHIN SCHOOL ZONES SHOULD BEDISCUSSED WITH THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING, (954) 847-2600.
5. ALL WORK REQUIRED AT DESIGNATED SCHOOL CROSSINGS AND PEDESTRIAN CROSSINGS SHALL BE RESTORED TO A SAFE WALKABLE PATH DURING ARRIVAL AND DISMISSAL TIMES.
6. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-600, TO DISCUSS ALL NECESSARY SAFETY MEASURES.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES.

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

8. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRECONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | FDOT SCHOOL MOT NOTES | STDDWG. NO. GNRL 004 | REVISED 2018/09/21

GNRL-005 - BROWARD COUNTY SCHOOL MOT NOTES Tuesday, September 25, 2018

BROWARD COUNTY SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE MAINTENANCE OF TRAFFIC PLAN, PROVIDED BY THE CONTRACTOR, SHALL INCLUDE PROVISIONS FOR PEDESTRIAN AND/OR SCHOOL STUDENT TRAFFIC AS WELL AS VEHICULAR TRAFFIC. THE FOLLOWING ARE MINIMUM REQUIREMENTS:
2. THE SAFE WALK ROUTE FOR ALL SCHOOL STUDENTS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING STUDENT ARRIVAL AND DISMISSAL TIMES. IF THE CURRENT WALKING SURFACE CANNOT BE MAINTAINED, THEN A TEMPORARY WALKABLE SURFACE SHALL BE CREATED. THE SAFE WALK ROUTE SHALL BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS.
3. ALL CONSTRUCTION EQUIPMENT ACTIVITY AROUND ANY DESIGNATED CROSSWALK SHALL CEASE TO OPERATE DURING THE STUDENT ARRIVAL AND DISMISSAL TIMES. ALL CONSTRUCTION EQUIPMENT ACTIVITY ADJACENT TO A DESIGNATED WALK ROUTE SHALL CEASE OPERATING UNLESS SATISFACTORILY BARRICADED FROM THE WALK ROUTE.
4. IN THE CASE THAT A DESIGNATED CROSSING OR ANY PORTION OF THE DESIGNATED WALK ROUTE CANNOT BE MAINTAINED, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CLOSING THAT ROUTE IN ORDER TO ESTABLISH AN ALTERNATE CROSSING/ROUTE.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ANY NECESSARY PAVEMENT, ROAD ROCK, PAVEMENT MARKINGS AND SIGNAGE AND/OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN EXISTING OR ALTERNATE WALK ROUTE THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STATE CERTIFIED SCHOOL CROSSING GUARDS OR OFF DUTY POLICE OFFICERS TO CROSS STUDENTS AT ALL LOCATIONS OTHER THAN THOSE PREVIOUSLY DESIGNATED. THE CONTRACTOR MAY USE FLAGMEN, BUT ONLY IF THEY ARE STATE CERTIFIED AS A SCHOOL CROSSING GUARD.
7. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600 OR AT BROWARD@TRAFFIC.ORG TO DISCUSS ALL NECESSARY SAFETY MEASURES.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES:

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | BROWARD COUNTY SCHOOL MOT NOTES SHEET 1 | STDDWG. NO. GNRL 005 | REVISED 2018/09/21

1

ISSUED FOR BID

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE No: 85538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION
1	07/02/2025	JLS	DECF	ADDENDUM #2

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 1

SHEET NO. DT-01 | SHT # 129
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

DWG DEF: BROWARD COUNTY SCHOOL MOT NOTICE Tuesday, September 20, 2016

9. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRE-CONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN APPROVED MAINTENANCE OF TRAFFIC PLAN (MOT), SPECIFYING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS, THROUGH THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION OR THE LOCAL MUNICIPALITY, DEPENDING ON THE ROADWAY JURISDICTION. THE CONDITIONS OUTLINED IN THE MOT ARE FULLY EFFECTIVE AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL WORK ASSOCIATED WITH THE PROJECT IS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE APPROVED MOT.

11. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SPEED SCHOOL ZONE AT ANY TIME THROUGHOUT THE PROJECT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BROWARD COUNTY SCHOOL MOT NOTES SHEET 2	STD. NO. GNRL 005 REVISED 2016/08/21

1

12082-MULTI-DETL Wednesday, July 09, 2025

BROWARD COUNTY COMMUNICATION NOTES:

1. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF THE MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS - COMMUNICATION INFRASTRUCTURE" DOCUMENT. PLEASE REFER TO (BCTED'S) COMMUNICATIONS POLICIES AND PROCEDURES FOR ADDITIONAL INFORMATION. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. IF FIBER OPTIC PULL BOXES ALREADY EXIST AT AN INTERSECTION, NO ADDITIONAL FIBER OPTIC PULL BOXES WILL NEED TO BE INSTALLED. FOR A COPY OF THESE STANDARDS REFER TO THE BROWARD COUNTY WEB SITE AT WWW.BROWARD.ORG/TRAFFIC UNDER PUBLICATIONS.

2. IF THERE ARE COPPER INTERCONNECT CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

3. IF THERE ARE FIBER OPTIC CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

4. IF THERE ARE CELLULAR COMMUNICATIONS WITHIN YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

5. ALL BCTED COMMUNICATIONS CABLES/CONDUIT SHALL BE LOCATED A MINIMUM OF 48 HOURS IN ADVANCE.

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
PROCEDURE FOR NOTIFICATION OF COMMUNICATION DISRUPTION

COPPER INTERCONNECT CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

FIBER OPTIC CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

UTILITY OWNER CONTACT PERSON:

INTERCONNECT COMMUNICATIONS CABLES - (ROBERT BLOUNT) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2745

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BROWARD COUNTY COMMUNICATION NOTES	STD. NO. GNRL 006 REVISED 2015/08/21

DWG DEF: SCHOOL ZONE INSTALLATION REQUIREMENTS Tuesday, September 20, 2016

SCHOOL ZONE INSTALLATION REQUIREMENTS WITHIN BROWARD COUNTY:

1. THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE FOLLOWING MANUALS:

   A. THE FDOT DESIGN STANDARDS

   B. THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

   C. THE BROWARD COUNTY MINIMUM STANDARDS APPLICABLE TO PUBLIC RIGHTS-OF-WAY

2. FOR THE LATEST EDITION OF SCHOOL FLASHER DETAIL SHEETS AND MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIANS NOTES, SEE THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S WEB SITE AT:
   HTTP://WWW.BROWARD.ORG/TRAFFIC/PAGES/PUBLICATIONS.ASPX

3. THE "MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN" NOTES SHALL APPEAR ON THE PLAN AS INDICATED. DEPENDING ON THE JURISDICTION OF THE ROADWAY THE CONTRACTOR WILL UTILIZE EITHER THE BCTED OR FDOT VERSION, WHICH WILL BE DETERMINED BY THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED.

4. SCHOOL FLASHER PLANS ARE VALID FOR EIGHTEEN (18) MONTHS FROM DATE OF APPROVAL. AFTER THAT DATE, PLANS SHALL BE RESUBMITTED FOR APPROVAL.

5. NO SCHOOL FLASHER AND/OR ASSOCIATED EQUIPMENT SHALL BE PLACED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY OR ON PRIVATE PROPERTY WITHOUT THE PRIOR ACQUISITION OF THE NECESSARY TRAFFIC ENGINEERING EASEMENTS BY THE CONSULTANT/CONTRACTOR. THESE EASEMENTS SHALL BE LARGE ENOUGH TO ALLOW ACCESS TO THE TRAFFIC ENGINEERING EQUIPMENT BY TECHNICIANS AND BY LARGER VEHICLES WHICH MAY REQUIRE ACCESS TO THE EQUIPMENT. THE SIZE AND LOCATION OF THE EASEMENTS WILL BE DETERMINED ON A CASE-BY-CASE BASIS. THE EASEMENTS SHALL BE RECORDED DOCUMENTS AND A COPY OF THE FULLY EXECUTED RECORDED EASEMENT SHALL BE PROVIDED TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR PRIOR TO INSTALLATION.

6. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED FOR APPROVAL, ALL OF THE EQUIPMENT SPECIFICATIONS (I.E. SHOP DRAWINGS) FOR ALL MATERIALS PROPOSED FOR THE PROJECT. SEE SECTION 603 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR SUBMITTAL DATA REQUIREMENTS. INCLUDED IN THE SUBMITTAL SHALL BE SHOP DRAWINGS FOR GROUND MOUNT AND/OR MAST ARM DETAILS, AS APPLICABLE.

7. IF ELECTRICAL SERVICE IS REQUIRED, THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO BCTED, SYSTEMS SECTION - DESIGN ENGINEER, TO PROVIDE BILLING AUTHORIZATION TO FPL. THIS IS REQUIRED BEFORE ELECTRICAL SERVICE CAN BE OBTAINED. THE REQUEST SHALL INCLUDE A STATEMENT CERTIFYING THAT THIS ELECTRICAL INSTALLATION MEETS OR EXCEEDS ALL APPLICABLE REQUIREMENTS OF ALL APPLICABLE CODES AND IS NOW READY FOR CONNECTION TO FPL FACILITIES. ALSO INCLUDE THE DATE SERVICE IS REQUIRED BY IN THE REQUEST.

8. THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED EITHER BY FAX; 954-847-2700 OR E-MAIL; TRAFFIC@BROWARD.ORG TO SCHEDULE AN INSPECTION OF THE COMPLETE INSTALLATION, INCLUDING THE INTERIM SIGNING AND PAVEMENT MARKING PLAN. ACTIVATION OF THE FLASHERS SHALL ONLY BE PERMITTED AFTER SAID INSPECTION.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SCHOOL ZONE INSTALLATION REQUIREMENTS SHEET 1	STD. NO. GNRL 007 REVISED 2016/08/21

DWG DEF: SCHOOL ZONE INSTALLATION REQUIREMENTS Tuesday, September 20, 2016

9. THE CONTRACTOR SHALL PROVIDE SIX (6) SETS OF MARKED UP (AS-BUILT) CONSTRUCTION PLANS TO THE ENGINEER AND BCTED AS DEFINED IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 611, SEVEN (7) DAYS PRIOR TO SCHOOL FLASHER CONDITIONAL ACCEPTANCE INSPECTION BY BCTED. THE CONTRACTOR SHALL ALSO PROVIDE TWO SETS OF AS-BUILT PLANS TO BCTED SIGNAL TECHNICIAN AT THE TIME OF INSPECTION. TWO COPIES OF CABINET PRINTS, TWO SETS OF CABINET KEYS AND PAGER/TIME SWITCH OPERATION MANUALS FOR EACH LOCATION SHALL ALSO BE TURNED OVER AT THIS TIME.

10. THE CONTRACTOR IS ADVISED THAT THE PRESENCE OF OVERHEAD ELECTRICAL CONDUCTORS IN CLOSE PROXIMITY TO THE LOCATIONS OF PROPOSED SCHOOL FLASHERS MAY LIMIT THE TYPE OF EQUIPMENT THAT CAN BE USED IN CONSTRUCTION OF THE SCHOOL FLASHER. THE CONTRACTOR SHALL COORDINATE WITH FPL TO DEACTIVATE LINES IF NECESSARY.

11. ALL SIGN ASSEMBLIES SHOWN OR NOTED ON THE PLAN SHEETS FOR REMOVAL SHALL BE DELIVERED TO THE BCTED OPERATIONS BUILDING, 2300 WEST COMMERCIAL BLVD., FORT LAUDERDALE. EXISTING FLASHERS ARE NOT TO BE REMOVED UNTIL AFTER THE NEW UNIT HAS PASSED ITS FINAL INSPECTION.

12. SIGN LOCATIONS MAY BE VARIED IN THE FIELD AS NECESSARY IN ORDER TO AVOID CONFLICTS WITH UNFORESEEN OBSTACLES, DRIVEWAYS, ETC. ANY SIGN LOCATION VARIATIONS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHOWN ON THE AS BUILTS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SCHOOL ZONE INSTALLATION REQUIREMENTS SHEET 2	STD. NO. GNRL 007 REVISED 2016/08/21

1

12082-MULTI-DETL Wednesday, July 09, 2025

DRAINAGE NOTES:

1. DRAINAGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) OR REINFORCED CONCRETE (RCP). THE USE OF RCP PIPE FOR PUBLIC ROADWAY CROSSINGS IS PREFERRED.

2. CATCH BASINS, INLETS AND JUNCTION BOXES SHALL NOT BE INSTALLED IN DRIVEWAYS.

3. PRIOR TO BACKFILLING EXFILTRATION TRENCHES, DRAINAGE INLETS OR MANHOLES, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING INSPECTOR FOR AN INSPECTION.

4. DRAINAGE STRUCTURES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY CITY.

5. ALL PIPES SHALL BE LAID IN DRY TRENCH. ALL MUCK OR UNSUITABLE MATERIALS IN TRENCHES, INLETS OR MANHOLES SHALL BE REMOVED AND BACKFILLED WITH SELECTED MATERIAL APPROVED BY THE ENGINEER.

6. MINIMUM COVER FOR HDPE PIPE UNDER ASPHALT SHALL BE 24-INCH COMPACTED LIMEROCK BASE. MINIMUM COVER FOR PIPE UNDER GRASS SHALL BE 18" COMPACTED SUBGRADE.

7. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.

8. MAINTENANCE ACCESS SHALL BE PROVIDED ON BOTH SIDES OF EXFILTRATION TRENCHES IN THE FORM OF MANHOLES OR CATCH BASINS. THE MAXIMUM DISTANCE BETWEEN STORM STRUCTURES SHALL NOT EXCEED TREE HUNDRED (300) FEET).

9. ALL EXFILTRATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION DOCUMENT TITLED "DRAINAGE DESIGN GUIDE", LATEST EDITION.

10. GEOTEXTILE MATERIALS USED IN THE CONSTRUCTION OF EXFILTRATION TRENCHES SHALL BE IN ACCORDANCE WITH THE CRITERIA OF FLORIDA DEPARTMENT OF TRANSPORTATION'S DESIGN STANDARDS LATEST EDITION AND CITY OF FORT LAUDERDALE'S SPECIFICATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DRAINAGE NOTES	STD. NO. GNRL 008 REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION NOTES:

GENERAL DEMOLITION SPECIFICATIONS:

1. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.

2. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MIGHT IMPACT THE WORK.

3. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.

4. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.

5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.

6. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.

7. THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE DRAWINGS INDICATE THE SCOPE OF DEMOLITION WHERE DEMOLITION IS REQUIRED.

   7.1. DEMOLITION AND REMOVAL OF A 5' MIN.± STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.

   7.2. REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.

8. PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SANITATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.

9. PROTECT ALL UTILITIES, UNLESS OTHERWISE NOTED.

10. ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW CUT CLEAN PRIOR TO REMOVAL.

11. WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).

12. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON-SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DEMOLITION NOTES SHEET 1	STD. NO. GNRL 009 REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

13. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ON THE DRAWINGS ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.

14. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY ELECTRICAL, TELEPHONE, CABLE AND/OR GAS LINES. SUFFICIENT TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.

15. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.

16. FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL PASS THROUGH A THREE-INCH RING.

17. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.

18. MAINTAIN ACCESS TO SURROUNDING PROPERTIES AND BUILDINGS.

19. PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

20. ALL TRAFFIC SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.

21. ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO FIVE-FEET BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.

22. ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY WITH THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

23. ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DEMOLITION NOTES SHEET 2	STD. NO. GNRL 009 REVISED 2017/07/13

ISSUED FOR BID

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
FLORIDA No: 85558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DATE: 07/09/2025
DRAWN BY: JLS
DESIGNED BY: SCALE: AS SHOWN
DECF
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING

101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CH'D	DESCRIPTION
1	07/02/2025	JLS	DECF	ADDENDUM #2

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 2

SHEET NO. DT-02
SHT # 130
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

PRE-DEMOLITION RESPONSIBILITIES:

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-DEMOLITION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND THE CONTRACTOR.
2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK.
3. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE FOR THE OWNER A LISTING OF THE FACILITIES THE CONTRACTOR SHALL UTILIZE FOR RECYCLING AND DISPOSAL OF SPECIFIC MATERIALS. CONTRACTOR TO INDICATE THE MATERIALS INTENDED FOR RECYCLING AND THE MATERIALS INTENDED FOR DISPOSAL FOR OWNER'S APPROVAL.
4. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE THE OWNER SKETCHES SHOWING PROPOSED HAULING ROUTES TO RECYCLING AND DISPOSAL FACILITIES FOR APPROVAL.
5. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF DEMOLITION.
6. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE CITY AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
8. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY.
9. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL FIELD LOCATE EXISTING UNDERGROUND UTILITIES WITH THE UTILITY OWNERS.
10. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATION'S OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON DEMOLITION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
11. SUNSHINE STATE ONE CALL OF FLORIDA, INC. REQUIRES THE CONTRACTOR TO CALL TWO (2) FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) PRIOR TO BREAKING GROUND TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 3 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION SAFETY:

1. ALL DEMOLITION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
2. PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS. STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.
3. BUILDING MATERIALS TO BE REMOVED SHALL BE TESTED FOR ASBESTOS AND LEAD PAINT.
4. IF PETROLEUM PRODUCTS ARE FOUND WHILE DEMOLISHING, DISPOSE OF PETROLEUM WASTE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PAVEMENT DEMOLITION:

1. WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACING LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF DEMOLITION RESULTS IN RAVELING OF SAW CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
2. WHERE EXISTING PAVEMENT, CURB, CURB AND GUTTER, SIDEWALK, DRIVEWAY, OR VALLEY GUTTER IS REMOVED FOR INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SAID PAVEMENT, ETC., SHALL BE REPLACED WITH NEW PAVEMENT, ETC. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES, AND OTHER EQUIPMENT AS REQUIRED.
3. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE DRAWINGS. HOWEVER, IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, BUILDINGS, UTILITIES, ETC., THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPLACEMENT. REPLACEMENT PAVEMENT, SIDEWALK, ETC., SHALL BE NEW.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 4 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION PERMITTING:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITS FOR DEMOLITION FROM RESPONSIBLE REGULATORY AGENCIES WHILE FULLY ACKNOWLEDGING AND COMPLYING WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
2. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION, RECYCLING OR REUSE REQUIRED TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
3. THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO COMMENCEMENT OF ANY WORK. ACTUAL REMOVAL AND/OR RELOCATION OF ALL EXISTING LANDSCAPING WITHIN DEMOLITION AREAS TO BE CONDUCTED BY A LANDSCAPE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SITEWORK DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION ACTIVITIES WITH THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PRESERVING TREES AS INDICATED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TREE REMOVAL PERMIT OR ANY OTHER APPLICABLE PERMIT TO REMOVE, RELOCATE, OR PRESERVE EXISTING LANDSCAPE AND TREES.
4. ANY TREES FOR REMOVAL FOUND TO BE GREATER THAN OR EQUAL TO THREE (3) INCHES IN DIAMETER AT BREAST HEIGHT (DBH) SHALL REQUIRE A PERMIT WITH THE BROWARD COUNTY ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT (BCEPGMD).
5. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE THE LIGHTING, STORM INLET STRUCTURES, OR OTHER STRUCTURES DESIGNATED TO BE SAVED, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 5 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION EROSION AND SEDIMENT CONTROL NOTES:

1. THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO THE FINAL DEFINITION BY THE CONTRACTOR WHO SHALL BE SELECTED TO PERFORM THE WORK AND SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN ENCOMPASSING THE PRINCIPALS AND THE REQUIREMENTS DESCRIBED HEREIN AND A SCHEDULE FOR THEIR IMPLEMENTATION AND MAINTENANCE FOR THE PROJECT DURATION.
3. DURING DEMOLITION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEMS AND ADJACENT WATER BODIES AND WETLANDS, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
4. METHODS MAY INCLUDE TEMPORARY EROSION AND SEDIMENT CONTROLS SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THE BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.
5. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED THROUGHOUT THE DEMOLITION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
6. THROUGHOUT THE DEMOLITION PERIOD, THE CONTRACTOR SHALL INSPECT DAILY THE EROSION AND SEDIMENT CONTROL INSTALLATIONS FOR FAILURE OR SIGNS OF FAILURE OR MALFUNCTION. REPAIR OR REPLACE THE EROSION AND SEDIMENT CONTROL INSTALLATIONS IMMEDIATELY UPON DISCOVERY OF FAILURE OR MALFUNCTION.
7. INLETS AND CATCH BASINS, EXISTING ON-SITE AND OFF-SITE, SHALL BE PROTECTED FROM SEDIMENT STORM RUNOFF.
8. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES DUE TO DEMOLITION.
9. DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF TURBID WATER FROM THE PROJECT SITE WITHOUT PROPER EROSION AND SEDIMENT CONTROL AND APPROVAL FROM ENGINEER.
10. PHASING OF EROSION CONTROL DEMOLITION SHALL BE RECOMMENDED AS FOLLOWS:
    - 10.1. PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIERS, ETC.) AROUND ON-SITE FEATURES TO BE RETAINED, AT POINTS OF OFF-SITE DISCHARGE AND AROUND WORK AREAS TO BE EXCAVATED OR FILLED.
    - 10.2. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEMOLITION AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY DEMOLITION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION OCCURS (AS APPLICABLE TO THE PROJECT).

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 6 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

10.3. SELECT LOCATIONS FOR PLACEMENT OF EXCAVATED MATERIAL, WHERE SUITABLE FOR FILL OR UNSUITABLE MATERIAL, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPING FOR THIS PURPOSE MAY ACCELERATE BERM REVEGETATION. CONSTRUCT TEMPORARY OUTLETS FOR CONTAINMENT AREAS WITH SCREENS, HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORT.

10.4. SELECT / DESIGNATE ACCESS ROUTING FOR DEMOLITION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURES WHERE EXISTING TERRAIN SHALL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.

10.5. CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR DEMOLITION AREA RUNOFF. PROVIDE SCREENS, HAY BALES, ETC. TO FILTER DISCHARGE FROM THOSE AREAS.

10.6. SPOIL MOUNDS SHALL NOT BE LEFT FOR MORE THAN ONE WEEK PRIOR TO REPLACEMENT UNLESS PROTECTIVE CONTAINMENT MEASURES IN THE WORK AREA ARE APPLIED.

10.7. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF REGRADING, SWALE SLOPES AND THE CONSTRUCTED OR DISTURBED AREAS.

11. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE REQUIREMENT OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). THE CONTRACTOR SHALL INSTITUTE BEST MANAGEMENT PRACTICES (BMPS) TO ENSURE COMPLIANCE WITH THE NPDES PROGRAM AND TO MINIMIZE THE IMPACT TO PUBLIC STORMWATER FACILITIES. A NOTICE OF INTENT (NOI) SHALL BE FILED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
12. THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MAINTAIN ALL RECORDS REQUIRED BY ITS NPDES STORMWATER PERMIT FOR ITS CONSTRUCTION ACTIVITIES.
13. PRIOR TO CONSTRUCTION, A SILT FENCE IN ACCORDANCE WITH CITY'S DETAIL SHALL BE ERECTED AS NOTED ON PLANS. ALL PROPOSED CATCH BASINS SHALL HAVE THEIR INLETS PROTECTED BY THE INSTALLATION OF FILTER INLET INSERTS INTO THE FRAME AND GRATE. SILT FENCES AND FILTER INLET INSERTS SHALL REMAIN IN PLACE DURING THE ENTIRE DURATION OF CONSTRUCTION.
14. CONTRACTOR SHALL BRACE ALL EXISTING LANDSCAPING TO REMAIN PRIOR TO BEGINNING ANY WORK AND SHALL ENSURE ITS STABILIZATION THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EXISTING SOD DISTURBED BY CONSTRUCTION THAT IS NOT AFFECTED BY PROPOSED GRADING SHALL BE RESTORED TO NEW CONDITION UPON COMPLETION OF CONSTRUCTION. SODDED SLOPES STEEPER THAN FOUR HORIZONTAL TO ONE VERTICAL SHALL BE PEGGED.
15. ALL WASTE GENERATED FROM THE CONSTRUCTION SHALL BE DISCARDED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. CONTRACTOR SHALL OBTAIN ALL APPLICABLE CODES AND BECOME FAMILIAR WITH STATE, LOCAL AND FEDERAL REGULATIONS PRIOR TO BEGINNING CONSTRUCTION.
16. TO ENSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED, CONTRACTOR SHALL PUT INTO PRACTICE THE METHODS DETAILED IN FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 106 (2010 DESIGN STANDARDS) AND BMPS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 7 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

17. DUST GENERATED FROM CONSTRUCTION SHALL BE MINIMIZED BY DAILY WATERING OF THE SITE.
18. AT ANY TIME DURING CONSTRUCTION THAT THE SILT FENCING IS DISTURBED, THE SILT FENCING SHALL BE RESTORED TO ITS ORIGINAL STATE WITHIN 24 HOURS. AT NO TIME DURING CONSTRUCTION SHALL WORK BE PERFORMED WITHOUT THE INTEGRITY OF THE SILT FENCING SECURED.
19. A QUALIFIED INSPECTOR, PROVIDED BY THE CONTRACTOR, SHALL INSPECT ALL POINTS OF DISCHARGE INTO NEARBY SURFACE WATER. THE INSPECTION SHALL OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. INSPECTION INCLUDES THE WRITTEN RECORDING OF THE CONDITION OF ALL DISCHARGE POINTS, INTEGRITY OF SILT FENCING, DAILY DUST CONTROL MEASURES, VEHICULAR TRAFFIC AND CONSTRUCTION MATERIAL STORAGE AND DISPOSAL. WRITTEN RECORD OF ALL INSPECTIONS SHALL BE STORED BY THE CONTRACTOR.
20. THE INSPECTION REPORT SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING INFORMATION: NAME AND QUALIFICATION OF PERSONNEL MAKING THE INSPECTION, DATE OF INSPECTION, RAINFALL DATE, MAJOR OBSERVATIONS RELATING TO THE SWPPP, ACTIONS TAKEN BY CONTRACTOR AND ANY INCIDENT OF NONCOMPLIANCE WITH PERMIT. WHERE AN INSPECTION DOES NOT IDENTIFY ANY INCIDENT OF NONCOMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT.
21. THE CONTRACTOR SHALL RETAIN A COPY OF THE SWPPP AND ALL REPORTS, RECORDS AND DOCUMENTATION REQUIRED BY THE PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOTICE OF INTENT, FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.
22. THE CONTRACTOR SHALL RETAIN THE SWPPP, NOI AND ALL RECORDS ASSOCIATED THEREWITH FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED.
23. SEE LANDSCAPE PLANS FOR TREE REMOVAL AND LANDSCAPE DEMOLITION.
24. CONTRACTOR SHALL COORDINATE THROUGH CITY'S CONSTRUCTION DIVISION AND CITY'S PARKS DEPARTMENT ON HOW TO STOCK AND RE-USE EXCAVATED SOIL FROM SITE (AS APPLICABLE TO THE PROJECT).

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 8 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

INTERRUPTION OF EXISTING UTILITIES:

1. ANY DEMOLITION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR WRITTEN NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY.
2. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK.
3. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL-TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR.
4. EACH CUSTOMER AFFECTED BY THE SHUT-DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

TEMPORARY DEMOLITION FACILITIES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING DEMOLITION.
2. MAINTENANCE OF TRAFFIC (MOT) IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
4. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS WRITTEN PERMISSION OF THE CITY OR RESPECTIVE GOVERNING AGENCY.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 9 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

ISSUED FOR BID

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE: No: 85538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 3

SHEET NO. DT-03 | SHT # 131
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

WASTE MANAGEMENT PLAN:

1. IMPLEMENT A WASTE MANAGEMENT PLAN FOR APPROVAL BY THE OWNER. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION AND OTHER ITEMS AS NEEDED TO IMPLEMENT THE WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.
2. DESIGNATE A WASTE MANAGEMENT COORDINATOR TO BE RESPONSIBLE FOR IMPLEMENTING, MONITORING AND REPORTING STATUS OF WASTE MANAGEMENT WORK PLAN. COORDINATOR SHALL BE PRESENT AT PROJECT SITE FULL-TIME FOR DURATION OF PROJECT.
3. TRAIN WORKERS, SUBCONTRACTORS AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK AT THE PROJECT SITE.
4. DISTRIBUTE A WASTE MANAGEMENT PLAN BEFORE WORK BEGINS. REVIEW PLAN PROCEDURES AND LOCATION ESTABLISHED FOR SALVAGE, RECYCLING AND DISPOSAL.

RECYCLING DEMOLITION WASTE:

1. SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT THE PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL.
2. PROVIDE APPROPRIATELY MARKED CONTAINERS OR BINS FOR CONTROLLING RECYCLABLE WASTE UNTIL THEY ARE REMOVED FROM THE PROJECT SITE. INCLUDE A LIST OF ACCEPTABLE AND UNACCEPTABLE MATERIALS AT EACH CONTAINER AND BIN.
3. INSPECT CONTAINERS AND BINS FOR CONTAMINATION AND REMOVE CONTAMINATED MATERIALS IF FOUND.
4. STOCKPILE PROCESSED MATERIALS ON-SITE WITHOUT INTERMIXING WITH OTHER MATERIALS. PLACE, GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
5. STOCKPILE MATERIALS AWAY FROM DEMOLITION AREA. DO NOT STORE WITHIN DRIP LINE OF REMAINING TREES.
6. STORE COMPONENTS OFF THE GROUND AND PROTECT FROM THE WEATHER.
7. REMOVE RECYCLABLE WASTE OFF THE OWNER'S PROPERTY AND TRANSPORT TO RECYCLING RECEIVER OR PROCESSOR.
8. ASPHALTIC CONCRETE PAVING: BREAK UP AND TRANSPORT PAVING TO ASPHALT RECYCLING FACILITY.
9. CONCRETE: REMOVE REINFORCEMENT AND OTHER METALS FROM CONCRETE AND SORT WITH OTHER METALS.
10. MASONRY: MASONRY WASTE SHALL INCLUDE WHOLE OR BROKEN BRICK AND CONCRETE MASONRY UNITS. WHOLE MASONRY UNITS SHALL BE CLEANED AND REUSED OR DONATED. BROKEN MASONRY SHALL BE CRUSHED AND USED AS FILL FOR OFFSITE AREAS. REMOVE METAL REINFORCEMENT, ANCHORS AND TIES FROM MASONRY AND SORT WITH OTHER METALS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DEMOLITION NOTES
SHEET 10

DETAIL NO. GNRL 009 — DATE 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

11. METALS: METALS FROM REINFORCED CONCRETE, REINFORCED MASONRY, STRUCTURAL STEEL MEMBERS, FLASHING AND SHEET METAL, CONDUIT PIPE, SIDING, PIPING AND WIRING SHALL BE SEPARATED BY TYPE.
12. STRUCTURAL STEEL: STACK MEMBERS ACCORDING TO THEIR SIZE, TYPE AND LENGTH.
13. NUTS AND BOLTS: REMOVE BOLTS, NUTS, WASHERS AND OTHER ROUGH HARDWARE.
14. SITE-CLEARING WASTE SHALL BE RECYCLED BY CHIPPING BRUSH, BRANCHES AND TREES, THEN HAUL TO WOOD RECYCLING CENTER.

DISPOSAL OF WASTE:

1. GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR OTHER PERMITTED DISPOSAL FACILITY.
2. EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF TO ACCUMULATE ON-SITE.
3. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT SHALL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
4. BURNING: DO NOT BURN WASTE MATERIALS.
5. DISPOSAL: TRANSPORT WASTE MATERIALS OFF THE OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DEMOLITION NOTES
SHEET 11

DETAIL NO. GNRL 009 — DATE 2017/07/17

12082-MULTI-DETL Wednesday, July 09, 2025

MINIMUM DENSITY REQUIREMENTS			
LOCATION	MATERIAL	MINIMUM DENSITY (% OF MAX)	TESTING FREQUENCY
ROADS (INCLUDES SIDEWALKS, ASPHALT PATHS)	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF ROADWAY, SIDEWALK OR PATHWAY.
	SUBGRADE	98%	
	BASE	98%	
MANHOLES AND VAULTS (IN ROADS AND PARKING AREAS)	IN-PLACE SUBGRADE BENEATH STRUCTURES	95%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE BOTTOM OF THE STRUCTURE AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: PERFORM TESTING AT EACH STRUCTURE.
	BACKFILL BENEATH STRUCTURES	98%	
	BACKFILL AROUND STRUCTURES	98%	
	CRUSHED STONE BENEATH STRUCTURES	NOTE 6	
PARKING AREAS	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED EVERY 6,000 SQUARE FEET OF PARKING AREA.
	SUBGRADE	98%	
	BASE	98%	
UTILITY TRENCH BACKFILL	BEDDING AND BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE SPRING LINE AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF A PIPE INSTALLATION, AND BETWEEN EACH SET OF STRUCTURES SEPARATED BY LESS THAN 300 FEET.
ROADS AND PARKING	ASPHALT	94%	ASPHALT TESTING MAY BE DONE BY CORE SAMPLING OR NUCLEAR GAUGE DENSITY TESTING. ASPHALT TESTING SHALL BE AT MAXIMUM 300 LINEAR FOOT ALONG ROADWAYS AND 6,000 SQUARE FOOT INTERVALS FOR PARKING AREAS.

NOTES:

1. THE DENSITY REQUIREMENTS PRESENTED ASSUME DRY TRENCH CONDITIONS.
2. UNLESS INDICATED OTHERWISE IN THE SPECIFICATIONS, TESTING SHALL COMPLY WITH THE REQUIREMENTS PRESENTED IN THIS TABLE.
3. LIFT THICKNESSES FOR BASE, SUBGRADE AND BACKFILL SHALL BE AS INDICATED ON THE DETAILS OR DESCRIBED IN THE SPECIFICATIONS.
4. MAXIMUM DENSITY SHALL BE DETERMINED BY ASTM D 1557 OR AASHTO T180 (MODIFIED PROCTOR).
5. FIELD DENSITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D 1556 OR D 2922.
6. THE AGGREGATE SHALL BE COMPACTED TO A DEGREE ACCEPTABLE TO THE ENGINEER BY USE OF A VIBRATORY COMPACTOR AND/OR CRAWLER TRACTOR.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DENSITY TESTING NOTES

DETAIL NO. GNRL 010 — DATE 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

EROSION AND SEDIMENT CONTROL:

1. CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL STATE AND OTHER GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.
2. DURING CONSTRUCTION ALL CATCH BASIN INLETS SHALL BE PROTECTED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CATCH BASIN.
3. SILT FENCES SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT DISCHARGE OF SEDIMENT ONTO ADJACENT UNDISTURBED AREAS, OR OFF-SITE AREAS.
4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.
5. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
6. ALL EXPOSED AREAS SHALL BE SODDED AS SPECIFIED WITHIN 30 DAYS OF FINAL GRADING.
7. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
9. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
10. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY CITY, COUNTY, AND STATE OF FLORIDA ON SITE INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.
11. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
12. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
13. BURNING OF DEBRIS WILL NOT BE ALLOWED.
14. CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
15. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATER WAYS. IN ADDITION CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE IF IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES IF EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC. THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS THE FIRST ITEM OF WORK.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EROSION AND SEDIMENT CONTROL NOTES
SHEET 1

DETAIL NO. ESC 001 — DATE 2017/07/08

12082-MULTI-DETL Wednesday, July 09, 2025

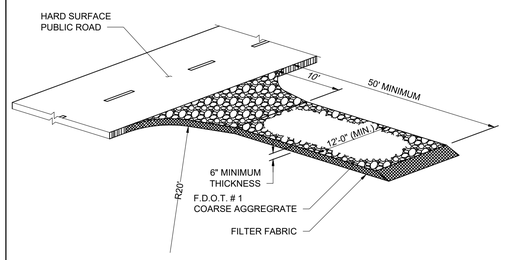
16. THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM APPLIES TO ALL CONSTRUCTION ACTIVITY THAT: 1) CONTRIBUTE STORMWATER DISCHARGES TO SURFACE WATER OF THE STATE OR INTO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4); 2) DISTURBS ONE OR MORE ACRES OF LAND; OR 3) LESS THAN ONE ACRE IS INCLUDED IF THE ACTIVITY IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT WILL MEET OR EXCEED THE ONCE ACRE THRESHOLD. DISTURB INCLUDES CLEARING, GRADING AND EXCAVATING.
17. FOR CONSTRUCTION ACTIVITY THAT IS SUBJECT TO THE NPDES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM, THE CONTRACTOR SHALL:
    - 17.1.1. OBTAIN A GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DOCUMENT 62-621.300(4)(A).
    - 17.1.2. COMPLY WITH ALL REQUIREMENTS OF THE GENERIC PERMIT.
    - 17.1.3. DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
    - 17.1.4. COMPLETE A NOTICE OF INTENT (NOI) FLORIDA DEPARTMENT OF ENVIORNMENTAL PROTECTION FORM 62-621.300(4)(B) IN ITS ENTIRETY USING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S WEBSITE.
18. SUBMIT COPIES OF THE SWPPP AND THE NOI TO THE ENGINEER AS INFORMATIONAL RECORDS. THESE SUBMITTALS WILL NOT BE REVIEWED BY THE ENGINEER.
19. CONTRACTOR TO CLEAN AND REPAIR ALL EXISTING STORMWATER INFRASTRUCTURE THAT IS IMPACTED BY CONSTRUCTION ACTIVITIES, BEFORE LEAVING THE JOBSITE.
20. CONTRACTOR TO REMOVE ALL FILTER FABRIC AND POLLUTION PREVENTION ITEMS BEFORE THE FINAL WALK-THROUGH.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EROSION AND SEDIMENT CONTROL NOTES
SHEET 2

DETAIL NO. ESC 001 — DATE 2017.07.08

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

GRAVEL CONSTRUCTION ENTRANCE

DETAIL NO. ESC 002 — DATE 2017.07.08

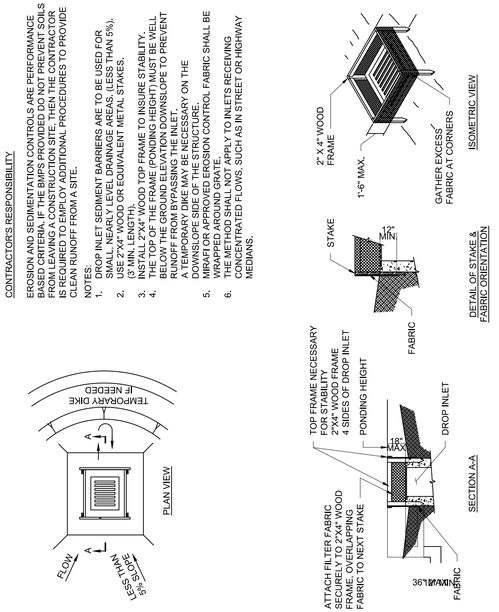
12082-MULTI-DETL Wednesday, July 09, 2025

CONTRACTOR'S RESPONSIBILITY

EROSION AND SEDIMENTATION CONTROLS ARE PERFORMANCE BASED. CONTRACTOR IS RESPONSIBLE TO PREVENT SEDIMENTS FROM LEAVING A CONSTRUCTION SITE. THEN THE CONTRACTOR IS REQUIRED TO EMPLOY ADDITIONAL PROCEDURES TO PROVIDE CLEAN RUNOFF FROM A SITE.

NOTES:

1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL NEARLY LEVEL DRAINAGES AREAS (LESS THAN 5%).
2. USE 2"X4" WOOD OR EQUIVALENT METAL STAKES. (3' MIN. LENGTH).
3. INSTALL 2"X4" WOOD TOP FRAME TO INSURE STABILITY.
4. THE TOP OF THE FABRIC SHALL BE AT LEAST 6" BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
5. MIRAFI OR APPROVED EROSION CONTROL FABRIC SHALL BE WRAPPED AROUND GRATE.
6. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.



CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DROP INLET PROTECTION - SEDIMENT BARRIER

DETAIL NO. ESC 004 — DATE 2016/08/21

ENGINEER: DAVID E. CASTRO FELIU, P.E.
LICENSE No: 85558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DATE: 07/09/2025
DESIGNED BY: DECF
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

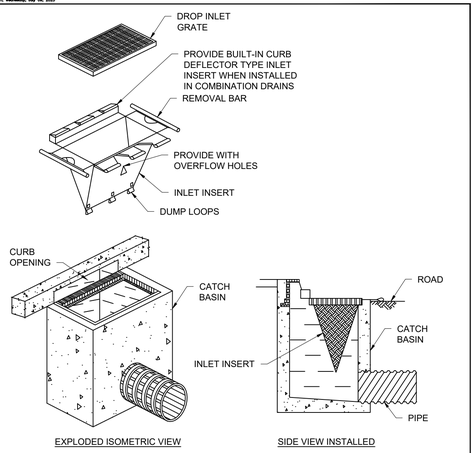
ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 4

SHEET NO. DT-04
SHT # 132
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



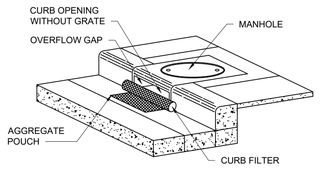
EXPLODED ISOMETRIC VIEW SIDE VIEW INSTALLED

NOTES:

1. THE INLET INSERT SHALL BE A SEDIMENT CONTROL DEVICE DESIGNED FOR DROP INLETS OR COMBINATION DRAINS WHERE A DROP INLET IS COUPLED WITH A CURB INLET.
2. THE INLET INSERT SHALL BE MADE OF A PERMEABLE GEOTEXTILE THAT ALLOWS WATER TO PASS BUT PREVENTS SILT AND SEDIMENT FROM CLOGGING THE DRAIN SYSTEM.
3. THE CONTRACTOR SHALL CLEAN AND INSPECT REGULARLY AND AFTER EVERY MAJOR RAIN EVENT.
4. INLET INSERTS SHALL BE "SILTSACK" BY ACF ENVIRONMENTAL, OR EQUAL. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DROP INLET PROTECTION - INLET INSERT	DETAIL NO. ESC 005 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

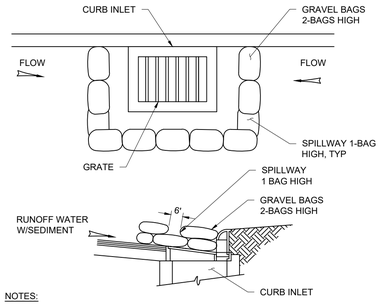


NOTES:

1. INSTALL CURB FILTERS AT ALL INLETS WITHOUT GRATES TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM SYSTEM
2. THE CURB FILTER SHALL BE DANDY CURB AS MANUFACTURED BY DANDY PRODUCTS INC., OR EQUAL. SUBMIT SHOP A SHOP DRAWING FOR THE CURB FILTERS.
3. THE CURB FILTER SHALL FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES.
4. THE CURB FILTER SHALL HAVE A POUCH ON THE STREET SIDE OF THE UNIT FOR STONE AGGREGATE TO HOLD THE FILTER IN PLACE.
5. THE CURB FILTER SHALL BE CONSTRUCTED OF A HIGH VISIBILITY ORANGE MONOFILAMENT FABRIC.
6. FILL POUCH WITH FDOT #57 STONE AGGREGATE TO A LEVEL (AT LEAST HALF-FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE CURB FILTER AND THE SURFACE OF THE STREET.
7. CENTER THE UNIT AGAINST CURB OR MEDIAN INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIAN BARRIER AND INLET STRUCTURE. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF THE INLET PROTECTION UNIT OVERHANGING ON EACH SIDE OF THE OPENING.
8. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CURB INLET PROTECTION - CURB FILTER	DETAIL NO. ESC 006 2017/07/19

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. A SPILLWAY SHALL BE DESIGNATED FOR EACH DIRECTION OF APPROACHING FLOW AS SHOWN. THE SPILLWAY SHALL BE LOCATED TO ALLOW THE MAXIMUM AMOUNT OF STORMWATER TO POOL WITHOUT FLOODING AREAS UP GRADE OF THE INLET.
2. FOR INLETS THAT ARE NOT ADJACENT TO CURBS, PLACE GRAVEL BAGS ONE BAG HIGH AROUND THE ENTIRETY OF THE INLET TO ACCOMMODATE FLOW FROM ALL DIRECTIONS.
3. BAG MATERIAL: BAGS SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D4355.
4. BAG SIZE: EACH GRAVEL-FILLED BAG SHALL BE 18-INCHES X 12-INCHES X 3-INCHES AND HAVE A MASS OF APPROXIMATELY 33 LBS. ALTERNATIVE BAG SIZES SHALL BE CONSIDERED BASED ON LOCALLY AVAILABLE MATERIALS.
5. FILL MATERIAL: GRAVEL SHALL BE PEA GRAVEL 3/8 INCHES IN DIAMETER AND SHALL BE CLEAN AND FREE OF CLAY BALLS, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CURB INLET PROTECTION - GRAVEL BAG	DETAIL NO. ESC 007 2017/08/08

12082-MULTI-DETL Wednesday, July 09, 2025

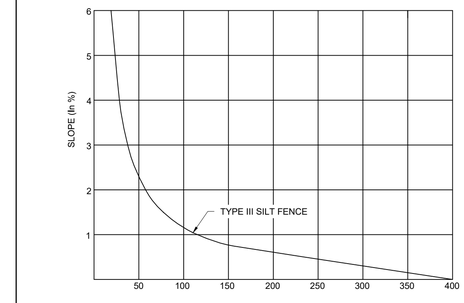
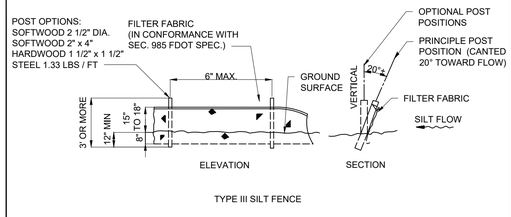


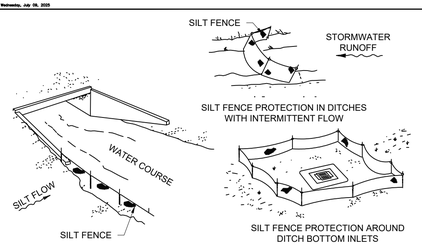
CHART 1: SILT FENCE SPACING



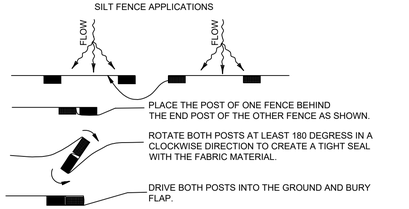
TYPE III SILT FENCE

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SILT FENCE - SHEET 1	DETAIL NO. ESC 009 2017/07/12

12082-MULTI-DETL Wednesday, July 09, 2025



SILT FENCE APPLICATIONS



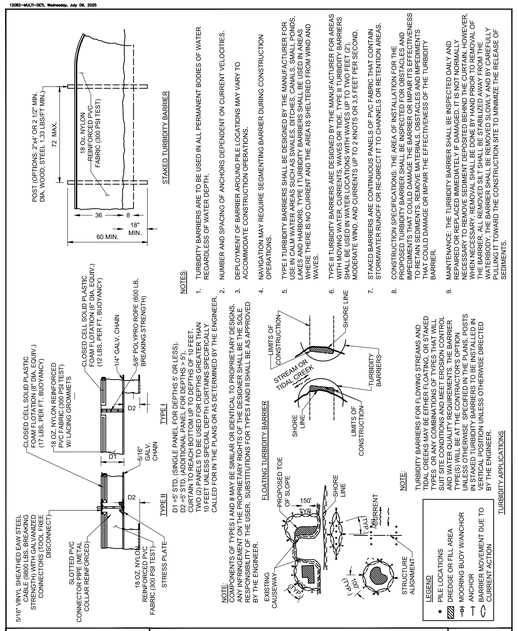
JOINING TWO SILT FENCES

NOTES:

1. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1.
2. 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.
3. 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.

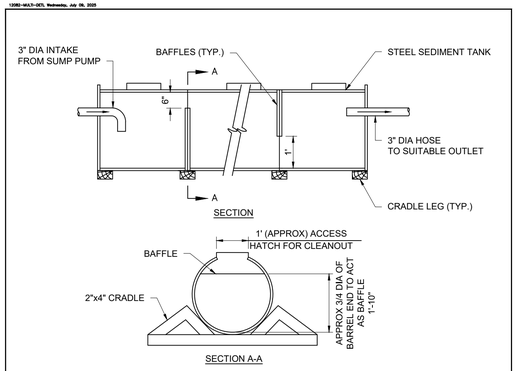
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SILT FENCE - SHEET 2	DETAIL NO. ESC 010 2017/07/11

12082-MULTI-DETL Wednesday, July 09, 2025



CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TURBIDITY BARRIER - FLOATING	DETAIL NO. ESC 011 2017/07/08

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.
2. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF IN A SEDIMENT TRAPPING DEVICE, AN APPROVED LOCATION IN WHICH FURTHER SEDIMENT TRANSPORT WILL NOT OCCUR OR AS APPROVED BY THE INSPECTOR.
3. PORTABLE SEDIMENT TANK SHALL BE AN ABOVE GROUND HORIZONTAL SINGLE-WALL UL-142 MANUFACTURED BY HIGHLAND TANK OR WEIR BOX MANUFACTURED BY RAIN FOR RENT OR EQUIVALENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	PORTABLE SEDIMENT TANK	DETAIL NO. ESC 012 2017/07/08

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY of FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 5

Hazen

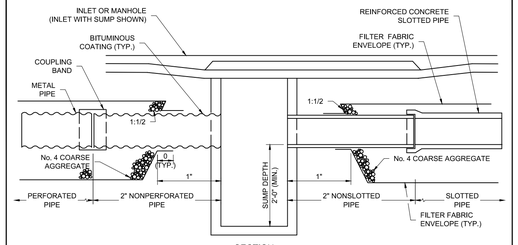
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

NO.	DATE	BY	CHK'D	DESCRIPTION

SHEET NO. DT-05
SHT # 133
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



SECTION

NOTES:

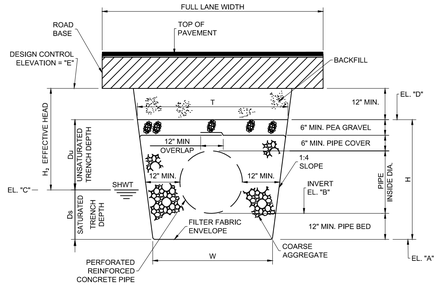
1. EXFILTRATION PIPE SHALL COMPLY WITH FDOT STANDARD SPECIFICATION SECTION 443.
2. CONCRETE PIPE SHALL BE PLACED WITH SLOTS POSITIONED ON SIDES.
3. ALIGNMENT JOINTS ARE STANDARD (GASKETS NOT REQUIRED). RECORREGATION OF METAL PIPE ENDS NOT REQUIRED.
4. FILTER FABRIC SHALL BE SUBSURFACE DRAINAGE TYPE PER FDOT SECTION 985. ALL FILTER FABRIC JOINTS SHALL LAP A MINIMUM OF 2 FEET.
5. PREVENT CONTAMINATION OF THE EXFILTRATION TRENCH WITH SAND, SILT AND FOREIGN MATERIALS.
6. NO WEEP HOLES SHALL BE PERMITTED IN STRUCTURES.
7. PIPE INVERT SHALL BE AT OR ABOVE THE WATER TABLE WHEN POSSIBLE.
8. COAT END OF METAL PIPE AT MANHOLE CONNECTION WITH A BITUMINOUS COATING. COATING SHALL EXTEND 12" BEYOND EXTERIOR OF MANHOLE.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EXFILTRATION TRENCH
LONGITUDINAL SECTION

STRM No. STRM 001
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



TRENCH SCHEDULE		
PARAMETER	TRENCH 1	TRENCH 2
PIPE DIAMETER		
W		
T		
H		
Ds		
Du		
H_2		
EL. "A"		
EL. "B"		
EL. "C"(SHWT)		
EL. "D"		
EL. "E" (DCE)		

NOTES:
DCE: DESIGN CONTROL ELEVATION
SHWT: SEASONAL HIGH WATER TABLE

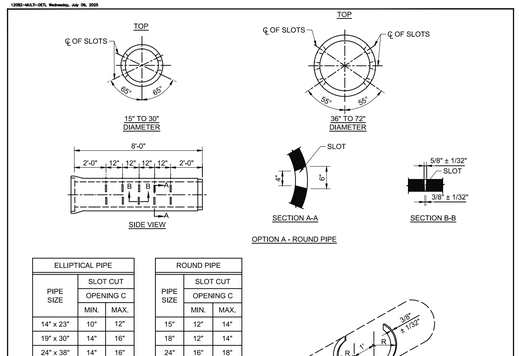
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EXFILTRATION TRENCH
CROSS SECTION

STRM No. STRM 002
Revised 2016/09/21

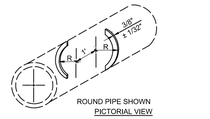
PLEASE SEE SHEET DT-19 FOR EXFILTRATION TRENCH DATA TABLE

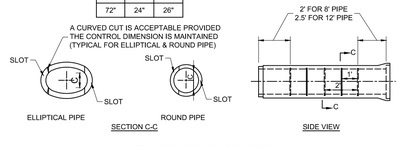
12082-MULTI-DETL Wednesday, July 09, 2025



ELLIPTICAL PIPE		
PIPE SIZE	SLOT CUT OPENING C	
	MIN.	MAX.
14" x 23"	10"	12"
19" x 30"	14"	16"
24" x 38"	14"	16"
29" x 45"	20"	22"
34" x 53"	20"	22"
38" x 60"	20"	22"

ROUND PIPE		
PIPE SIZE	SLOT CUT OPENING C	
	MIN.	MAX.
15"	12"	14"
18"	12"	14"
24"	16"	18"
30"	16"	18"
36"	22"	24"
42"	22"	24"
48"	22"	24"
54"	24"	26"
60"	24"	26"
66"	24"	26"
72"	24"	26"





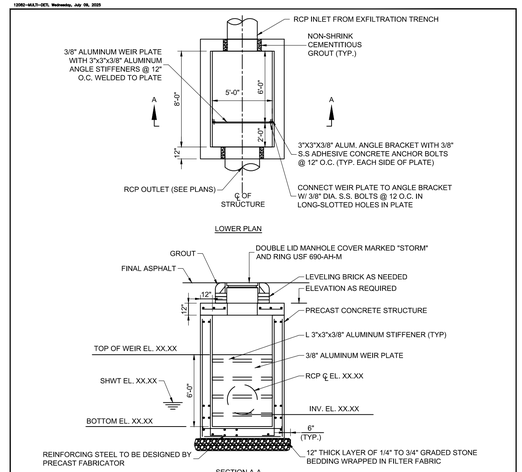
OPTION B - ROUND OR ELLIPTICAL PIPE

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REINFORCED CONCRETE SLOTTED PIPE

STRM No. STRM 003
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. ALL PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C478.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR ENGINEER'S REVIEW AND APPROVAL. SHOP DRAWING SHALL INCLUDE DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
3. SHOP DRAWINGS SHALL INCLUDE CALCULATIONS DEMONSTRATING THAT STRUCTURE WILL RESIST FLOATION WHEN EMPTY AND SUBJECT TO GROUNDWATER TO TOP OF STRUCTURE.
4. PRECAST CONCRETE SECTION SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
   a. LATERAL SOIL PRESSURE.
   b. GROUNDWATER ELEVATION = AT GRADE
   c. COMPACTION OF SOIL DURING BACKFILL.
   d. ADDITION STRESSES INDUCED BY TRANSPORTATION AND HANDLING.
   e. PIPE THRUST = 500 LB.
   f. H-20 TRUCK LOAD.

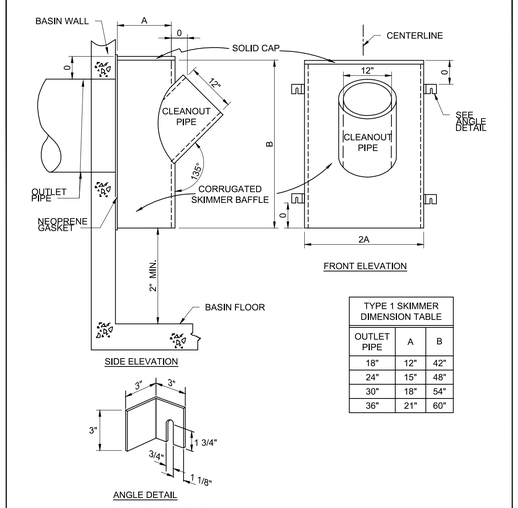
LEGEND:
SHWT: SEASONAL HIGH WATER TABLE

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TRENCH OVERFLOW STRUCTURE
PLAN AND SECTION
SHEET 1

STRM No. STRM 004
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



TYPE 1 SKIMMER DIMENSION TABLE		
OUTLET PIPE	A	B
18"	12"	42"
24"	15"	48"
30"	18"	54"
36"	21"	60"

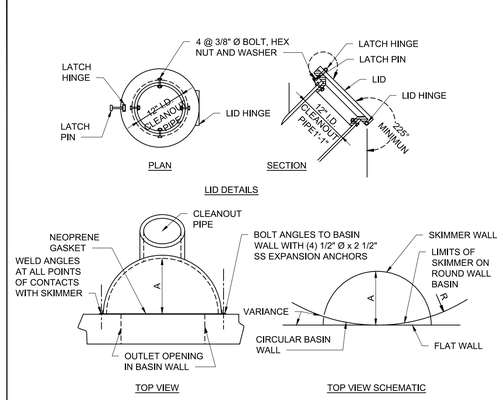
ANGLES ON OTHER SIDE OF
SKIMMER ARE MIRROR IMAGE

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 1 - SHEET 1

STRM No. STRM 005
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025

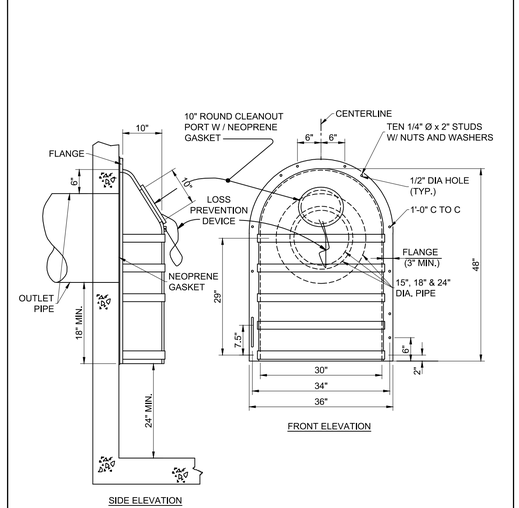


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

2016/09/21
SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 1 - SHEET 2

STRM No. STRM 006
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 2

STRM No. STRM 007
Revised 2016/09/21

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER
IMPROVEMENTS

STANDARD DETAILS - SHEET 6

SHEET NO. DT-06
SHT # 134
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

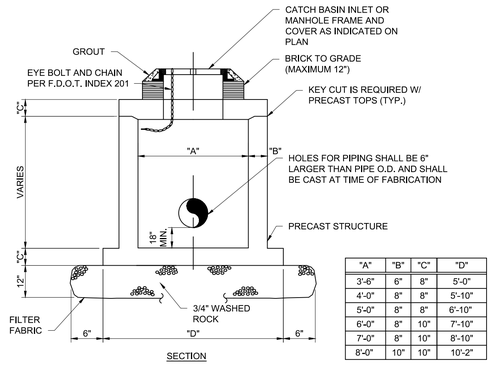
12082-MULTI-DETL Wednesday, July 09, 2025

NOTES:

1. THE SKIMMER IS A HOODED COVER, MOUNTED OVER AN OUTLET IN A CATCHBASIN, THAT PREVENTS OIL AND FLOATING DEBRIS FROM EXITING THE BASIN. USE THIS SKIMMER IN CATCHBASINS WHERE THERE IS A NEED TO PREVENT OIL, DEBRIS OR OTHER FLOATING CONTAMINANTS FROM EXITING CATCHBASINS THROUGH OUTLET PIPES.
2. PLACE NEOPRENE GASKET MATERIAL BETWEEN THE SKIMMER AND THE CATCHBASIN AT ALL POINTS OF CONTACT. TRIM THE GASKET NEATLY TO EXTEND 1/2 INCH BEYOND THE JOINT ON ALL SIDES.
3. SKIMMER BAFFLE, CLEANOUT PIPE AND ANGLES SHALL BE PRIMARILY CONSTRUCTED OF EITHER GALVANIZED STEEL, ALUMINUM, POLYVINYL CHLORIDE, POLYETHYLENE, FIBERGLASS OR ACRYLONITRITE BUTADIENE STYRENE. ALL STEEL COMPONENTS, OTHER THAN STAINLESS STEEL, SHALL BE HOT-DIP GALVANIZED.
4. MOUNTING HARDWARE, HINGES AND LATCHES SHALL ALL BE 316 STAINLESS STEEL. LOSS PREVENTION DEVICE SHALL BE EITHER 316 STAINLESS STEEL CHAIN OR RIVETED NYLON STRAP.
5. MATERIAL USED IN CONSTRUCTION OF SKIMMER BODIES (BAFFLES) AND CLEANOUT PIPE SHALL COMPLY WITH FDOT STANDARD SPECIFICATION 943 FOR STEEL, 945 FOR ALUMINUM OR 948 FOR PLASTICS.
6. ALL COST FOR FURNISHING AND INSTALLING A SKIMMER SHALL BE INCLUDED IN THE COST OF THE BASIN IN WHICH IT IS INSTALLED.
7. PLASTIC SKIMMER SHALL CONTAIN A MINIMUM OF 1.5% BY WEIGHT OF CARBON BLACK FOR UV PROTECTION.
8. THE BACKS OF SKIMMERS MUST CONFORM TO THE SHAPE OF THE BASIN WALLS ON WHICH THEY ARE MOUNTED.
9. THE CLEANOUT PORT FOR THE TYPE 2 SKIMMER SHALL BE GASKETED, WITH EITHER A THREADED SCREW-IN LID OR A LID SECURED BY FOUR STAINLESS STEEL QUICK-RELEASE LATCHES.
10. TYPE II SKIMMER ARE TO BE USED ONLY WITH OUTLET PIPE DIAMETERS OF 15", 18" AND 24".

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | SKIMMER FOR EXFILTRATION TRENCH OUTLET NOTES | STRM 008 | 2015/08/21

12082-MULTI-DETL Wednesday, July 09, 2025



"A"	"B"	"C"	"D"
3'-6"	6"	8"	5'-0"
4'-0"	8"	8"	5'-10"
5'-0"	8"	8"	6'-10"
6'-0"	8"	10"	7'-10"
7'-0"	8"	10"	8'-10"
8'-0"	10"	10"	10'-2"

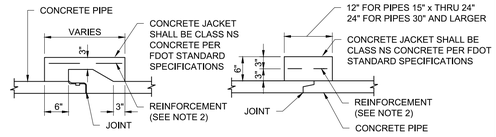
SECTION

NOTES:

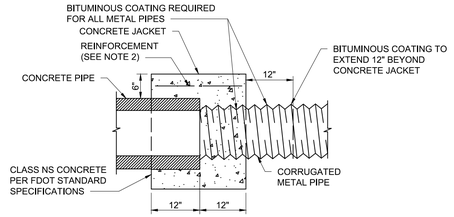
1. PRECAST STRUCTURE SHALL BE EITHER SQUARE OR ROUND AS INDICATED ON THE PLANS.
2. REINFORCING SHALL BE DESIGNED BY THE PRECAST MANUFACTURER TO COMPLY WITH FDOT INDEX 200.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S REVIEW. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
4. DESIGN STRUCTURE FOR H-20 TRUCK LOAD.
5. SHOP DRAWINGS SHALL INCLUDE CALCULATIONS DEMONSTRATING THAT STRUCTURE WILL RESIST FLOATION WHEN EMPTY AND SUBJECT TO GROUNDWATER TO TOP OF STRUCTURE.
6. CATCH BASINS SHALL HAVE USF 4155 FRAME AND 6209 GRATE.
7. MANHOLES SHALL HAVE USF 230 RING AND TYPE AA COVER WITH THE LETTERING "STORM SEWER" CAST IN THE COVER.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | PRECAST CIRCULAR & SQUARE DRAINAGE STRUCTURES | STRM 009 | 2017/07/14

12082-MULTI-DETL Wednesday, July 09, 2025



BELL AND SPIGOT — TONGUE & GROOVE



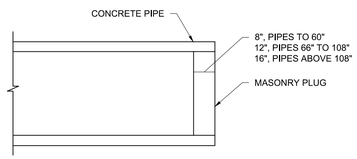
CONCRETE AND METAL PIPE JOINT

NOTES:

1. CONCRETE JACKET SHALL NOT BE USED TO JOIN METAL PIPES OF DISSIMILAR MATERIALS.
2. ANY WIRE MESH ARRANGEMENT WHICH PROVIDES 0.126 SQUARE INCHES OF STEEL AREA PER LINEAR FOOT BOTH WAYS MAY BE USED; PROVIDED THE WIRES ARE SPACED A MINIMUM OF 2" AND/OR A MAXIMUM OF 6" ON CENTERS.
3.
4. COST OF CONCRETE JACKET AND BITUMINOUS COATING SHALL BE INCLUDED IN THE COST OF THE PIPE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | CONCRETE JACKET FOR STORMWATER PIPE | STRM 010 | 2017/07/24

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. THE COST OF PLUGGING PIPES TO BE INCLUDED IN CONTRACT UNIT PRICE FOR NEW PIPE.
2. EITHER BRICK MASONRY OR CONCRETE BRICK MAY BE USED FOR THE PLUG.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | PIPE PLUG | STRM 011 | 2017/07/19

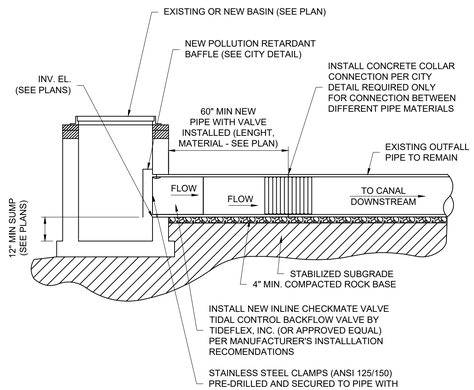
ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 85558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025

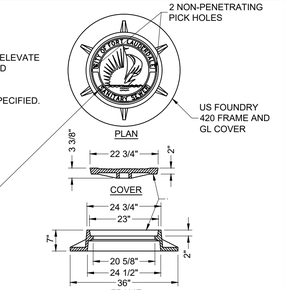


CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | INLINE CHECKVALVE INSTALLATION FOR TIDAL FLOOD CONTROL | STRM 016 | 2017.07.28

12082-MULTI-DETL Wednesday, July 09, 2025

NOTES:

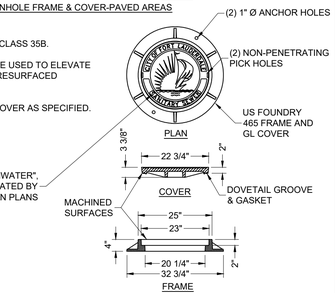
1. MATERIAL: ASTM-A48 GRAY IRON CLASS 35B.
2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING MANHOLE FRAMES TO RESURFACED GRADE (MAX 4" HEIGHT).
3. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.
4. LOAD RATING: AASHTO H-20



MANHOLE FRAME & COVER-PAVED AREAS

NOTES:

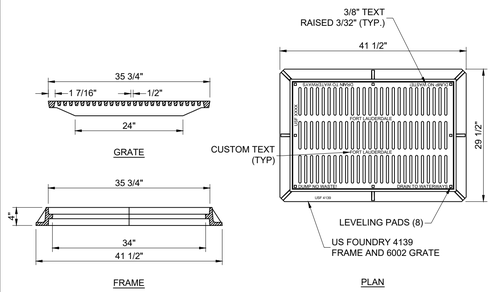
1. MATERIAL: ASTM-A48 GRAY IRON CLASS 35B.
2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING MANHOLE FRAMES TO RESURFACED GRADE (MAX 4" HEIGHT).
3. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.
4. LOAD RATING: AASHTO H-20



MANHOLE FRAME & COVER-UNPAVED AREAS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | MANHOLE FRAME AND COVER | STRM 017 | 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



23-3/4" x 35-3/4" RECTANGULAR GRATE

NOTES:

1. FRAME WEIGHT: 165 POUNDS
2. GRATE WEIGHT: 190 POUNDS
3. LOAD RATING: AASHTO H-20
4. OPEN AREA: 233 SQUARE INCHES
5. INSTALL DRAIN MARKER

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | ADA COMPLIANT CATCH BASIN FRAME AND GRATE 23" x 35" | STRM 019 | 2018/1/13

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS				
NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
STANDARD DETAILS - SHEET 7

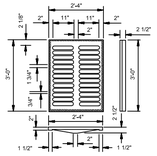
SHEET NO. DT-07 | SHT # 135

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

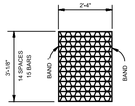
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



APPROX. WEIGHT 235 LBS

CAST IRON GRATE



STRAIGHT BARS 2" x 1/4"
RETICULINE BARS 1 1/4" x 3/16"
BANDS 2" x 1/4"
APPROX. WEIGHT 104 LBS

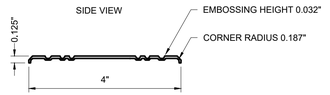
STEEL GRATE

NOTES

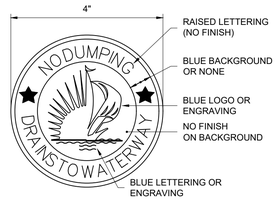
1. THESE INLETS ARE SUITABLE FOR BICYCLE TRAFFIC AND ARE TO BE USED IN DITCHES, MEDIANS AND OTHER AREAS SUBJECT TO INFREQUENT TRAFFIC LOADINGS BUT ARE NOT TO BE PLACED IN AREAS SUBJECT TO ANY HEAVY WHEEL LOADS. THESE INLETS MAY BE PLACED IN AREAS SUBJECT TO OCCASIONAL PEDESTRIAN TRAFFIC SUCH AS LANDSCAPED AREAS AND PAVEMENT AREAS WHERE PEDESTRIANS TRAFFIC SUCH AS LANDSCAPED AREAS AND PAVEMENT AREAS WHERE PEDESTRIANS CAN WALK AROUND THE INLET.
2. INLETS SUBJECT TO MINIMAL DEBRIS SHOULD BE CONSTRUCTED WITHOUT SLOTS. WHERE DEBRIS IS A PROBLEM INLETS SHOULD BE CONSTRUCTED WITH SLOTS. SLOTTED INLETS LOCATED WITHIN ROADWAY CLEAR ZONES AND AREAS SUBJECT TO PEDESTRIANS SHALL HAVE TRAVERSABLE SLOTS. TRAVERSABLE SLOTS SHALL NOT BE USED IN AREAS SUBJECT TO OCCASIONAL BICYCLE TRAFFIC.
3. STEEL GRATES ARE TO BE USED ON ALL INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED. STEEL GRATES ARE TO BE USED ON ALL INLETS WITH TRAVERSABLE SLOTS. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON INLETS WITHOUT SLOTS WHERE BICYCLE TRAFFIC IS NOT ANTICIPATED. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON ALL INLETS WITH NON-TRAVERSABLE SLOTS.
4. STEEL GRATES ARE REQUIRED ON INLETS WITH TRAVERSABLE SLOTS AND ON INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DITCH BOTTOM INLET TYPE C GRATES	STRM. No. STRM 020 Revised 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



TOP VIEW



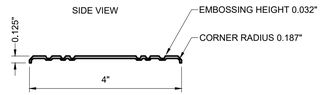
FINISH		
UV BAKED ENAMEL - 1 COLOR OPTION		
MATERIAL	THICKNESS	WEIGHT
304 ANNEALED STAINLESS STEEL	0.062"	0.218 LBS.

NOTES:

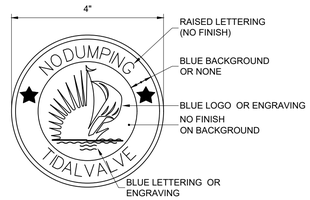
1. DRAIN MARKER SHALL BE BY LORDON, INC., OR EQUAL.
2. SECURE WITH SIKAFLEX IIFC ADHESIVE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DRAIN MARKER	STRM. No. STRM 021 Revised 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



TOP VIEW



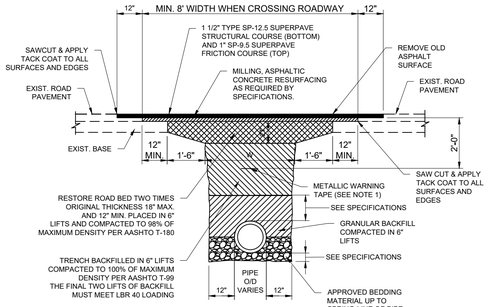
FINISH		
UV BAKED ENAMEL - 1 COLOR OPTION		
MATERIAL	THICKNESS	WEIGHT
304 ANNEALED STAINLESS STEEL	0.062"	0.218 LBS.

NOTES:

1. DRAIN MARKER SHALL BE BY LORDON, INC., OR EQUAL.
2. SECURE WITH SIKAFLEX IIFC ADHESIVE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TIDAL VALVE MARKER	STRM. No. STRM 022 Revised 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

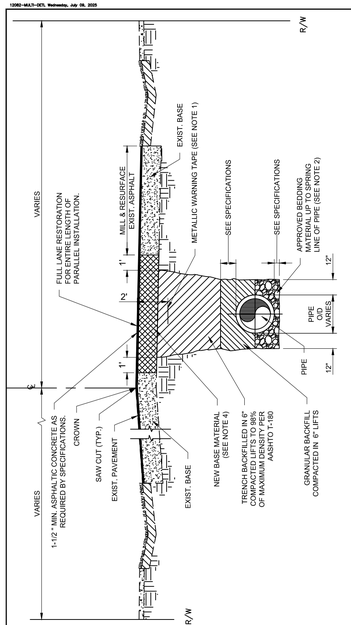
1. METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE ABOVE MAIN. (SEE SPECIFICATION 2320 SECTION 3.6 FOR MARKING TYPE)
2. UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.

T=6" PARKING
T=8" RESIDENTIAL STREETS
T=10" MAJOR STREETS (4 LANE)
T=12" MAJOR STREETS (6 LANE)

2T=18" MAX. 12" MIN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL TRENCH AND PAVEMENT RESTORATION FOR TRANSVERSE PIPE CROSSING SHEET 1	STRM. No. ROAD 001 Revised 2017/03/11

12082-MULTI-DETL Wednesday, July 09, 2025

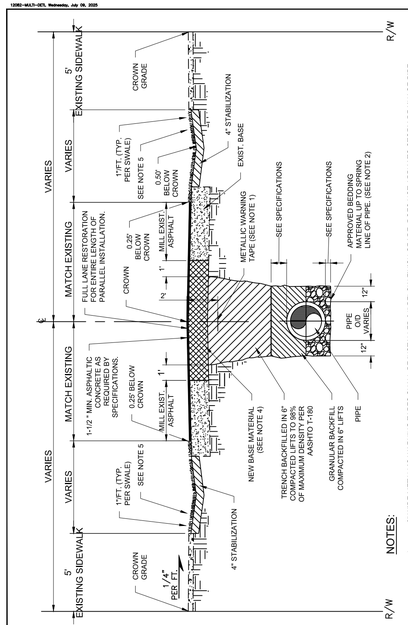


NOTES:

1. 2" WIDE METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE.
2. UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.
4. 12" MIN. LIMEROCK BASE PLACED IN 6" LAYERS AND COMPACTED TO 98% OF MAXIMUM DENSITY PER AASHTO T-180.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL ROAD SECTION, TYPICAL TRENCH AND TRENCH RESTORATION FOR PARALLEL PIPE TRENCH SHEET 2	STRM. No. ROAD 002 Revised 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

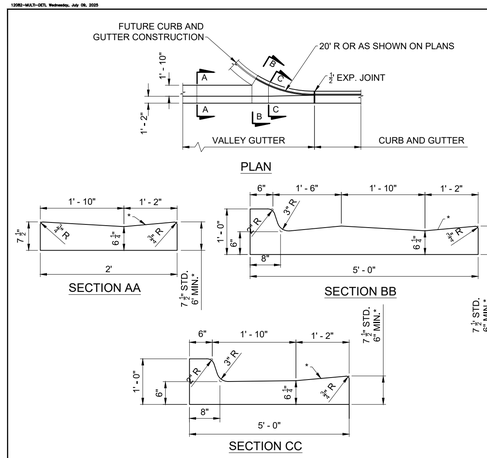


NOTES:

1. 2" WIDE METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE. DOES NOT APPLY TO STORM DRAINAGE PIPE INSTALLATION.
2. UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.
4. 12" MIN. LIMEROCK BASE PLACED IN 6" LAYERS AND COMPACTED TO 98% OF MAXIMUM DENSITY PER AASHTO T-180
5. BAHIA SOD, JOE ST. AUGUSTINE TYCOM PAR SOD IN PREVIOUSLY SODDED AREAS, OR REPLACE EXISTING IMPROVED SURFACE (e.g., ROCK OR ASPHALT PAVING TO MATCH EXISTING) (IF ASPHALT, MINIMUM 1" ASPHALT OVER MINIMUM 6" COMPACTED LIMEROCK)

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL ROAD SECTION, TYPICAL TRENCH, PAVEMENT AND SWALE RESTORATION FOR PARALLEL PIPE TRENCH SHEET 3	STRM. No. ROAD 003 Revised 2017/08/07

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.
2. ROTATE ENTIRE SECTION SO THAT GUTTER CROSS SLOPE MATCHES SLOPE OF ADJACENT CIRCULATING ROADWAY PAVEMENT.
3. FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT. FOR DETAILS DEPICTING USAGE ADJACENT TO FLEXIBLE PAVEMENT, SEE SHEET 2. EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURB & GUTTER AND CONCRETE PAVEMENT ONLY, SEE SHEET 2.
4. 4" CURB PAD (LBR 100, 98% COMPACTION T-180) TO BE PLACED UNDER CURB AND GUTTER, AND EXTEND 6" BEYOND OUTSIDE EDGE OF CURB. SEE SPECIFICATIONS FOR MATERIAL

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER VALLEY GUTTER SHEET 1	STRM. No. ROAD 005 Revised 2017/03/11

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING

101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS			
NO.	DATE	BY	CHK'D	DESCRIPTION

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

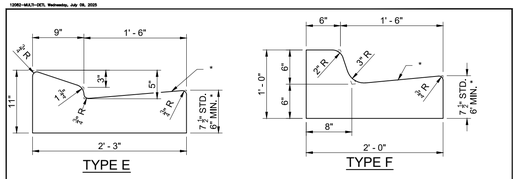
ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 8

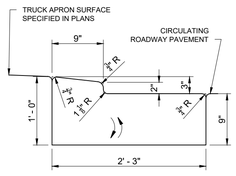
SHEET NO. DT-08
SHT # 136
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



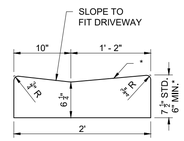
TYPE E

TYPE F

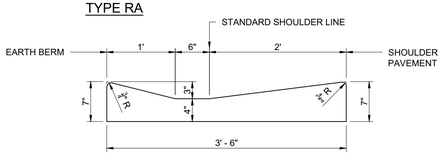


TRAFFIC BEARING SECTION FOR USE IN ROUNDABOUT CENTRAL ISLAND CONSTRUCTION

TYPE RA



DROP CURB



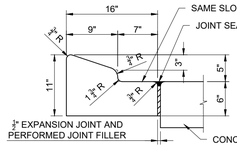
SHOULDER GUTTER

NOTE:

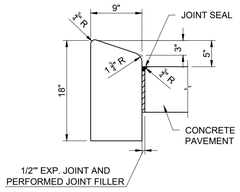
4" CURB PAD (LBR 100, 98% COMPACTION T-180) TO BE PLACED UNDER CURB AND GUTTER, AND EXTEND 6" BEYOND OUTSIDE EDGE OF CURB. SEE SPECIFICATIONS FOR MATERIAL

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER TYPE E, TYPE F, TYPE RA, DROP CURB, AND SHOULDER GUTTER SHEET 2	STD. No. ROAD 006 REVISED 2017/03/11

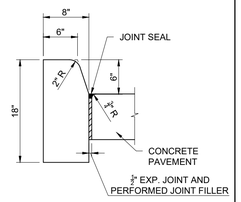
12082-MULTI-DETL Wednesday, July 09, 2025



TYPE A



TYPE B



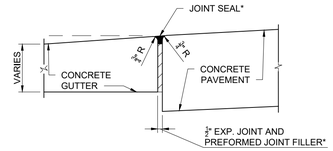
TYPE D

NOTES:

1. FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT, CONCRETE SHOWN. EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURBS AND CONCRETE PAVEMENT ONLY.
2. 4" CURB PAD (LBR 100, 98% COMPACTION T-180) TO BE PLACED UNDER CURB AND GUTTER, AND EXTEND 6" BEYOND OUTSIDE EDGE OF CURB. SEE SPECIFICATIONS FOR MATERIAL

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER TYPE A, TYPE B, AND TYPE D SHEET 3	STD. No. ROAD 007 REVISED 2018/06/04

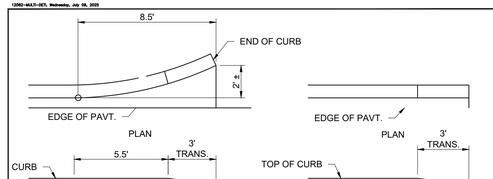
12082-MULTI-DETL Wednesday, July 09, 2025



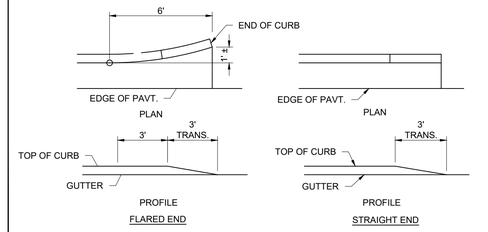
* APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT, LOW SIDE SHOWN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER EXPANSION JOINT BETWEEN GUTTER AND CONCRETE PAVEMENT SHEET 4	STD. No. ROAD 008 REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



TYPE A



TYPES E & F

NOTES:

1. FOR CURB, GUTTER AND CURB & GUTTER PROVIDE ½" - ¾" CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS.
2. ENDS OF CURBS TYPES B AND D SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3'.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER CURB AND GUTTER ENDINGS SHEET 5	STD. No. ROAD 009 REVISED 2018/06/04

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No. 85538
DATE:

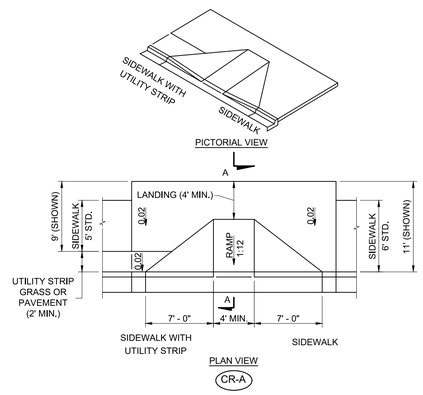
TEL: 954.730.0707
FAX: 954.730.2030

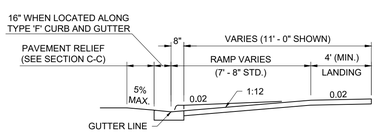
DRAWN BY: JLS
DESIGNED BY: DECF
DATE: 07/09/2025
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING

101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025





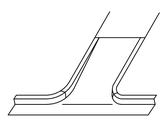
SECTION A-A

SECTION THROUGH RAMP AND LANDING (UNRESTRICTED CONDITIONS)

RAMP AND LANDING DEPTHS NOT RESTRICTED

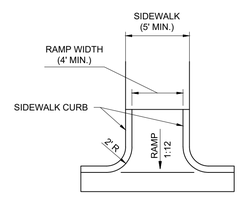
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 1	STD. No. ROAD 014 REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW

CR-E



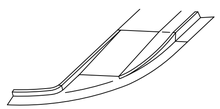
PLAN VIEW

CR-A

DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

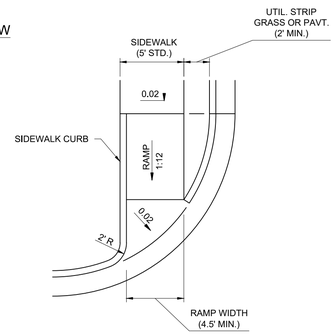
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 5	STD. No. ROAD 018 REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW

CR-F



PLAN VIEW

CR-F

DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 6	STD. No. ROAD 019 REVISED 2018/06/04

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

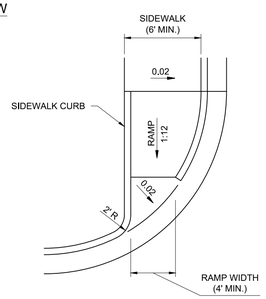
STANDARD DETAILS - SHEET 9

SHEET NO. DT-09
SHT # 137
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

PICTORIAL VIEW

CR-G



PLAN VIEW

CR-G

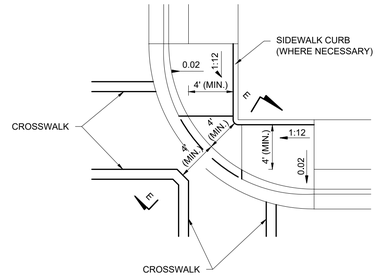
DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 7

STD. NO.
ROAD
020
REVISED
2018/06/04

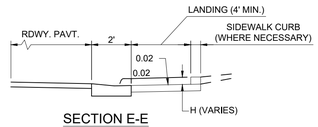
12082-MULTI-DETL Wednesday, July 09, 2025



PLAN VIEW

CR-F

NOTE: CROSSWALK WIDTH AND CONFIGURATION VARY; MUST CONFORM TO INDEX NO. 17344 AND 17346. 15' RADIUS CURVE SHOWN FOR CR-L.



SECTION E-E

SECTION THROUGH LANDING
(RESTRICTED CONDITIONS)

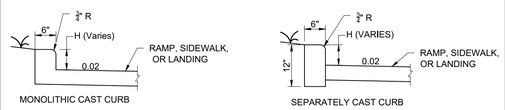
SIDEWALK CURB RAMPS WHERE RAMP AND LANDING DEPTHS ARE RESTRICTED

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

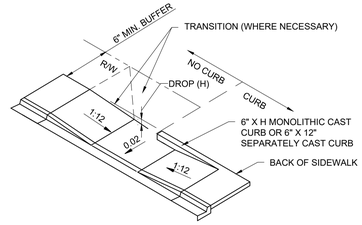
SIDEWALK CURB RAMPS
SHEET 10

STD. NO.
ROAD
023
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



SIDEWALK CURB OPTIONS



CONSTRUCT SIDEWALK CURB IN CUT SECTIONS

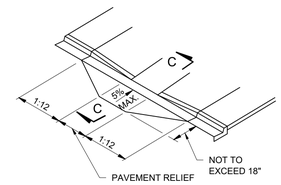
SIDEWALK CURB

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

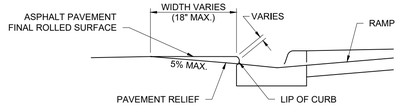
SIDEWALK CURB RAMPS
SHEET 11

STD. NO.
ROAD
024
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW



NOTE: REMOVE ELEVATED PAVEMENT BY SPADING AND ROLLING; SMOOTH MILLING; OR GRINDING

SECTION C-C

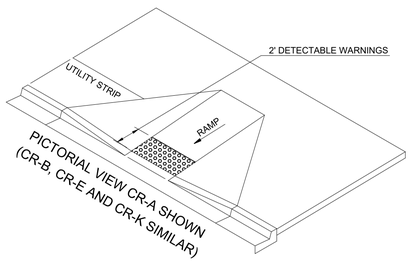
PAVEMENT RELIEF AT LIP OF CURB

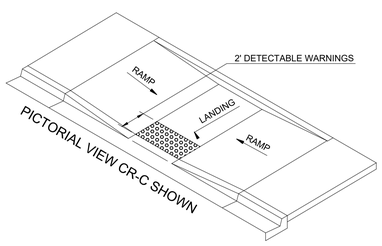
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 12

STD. NO.
ROAD
025
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025





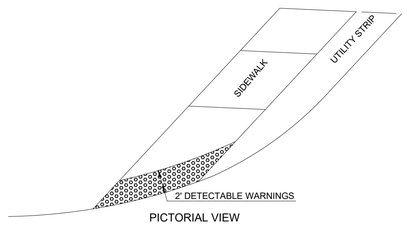
TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

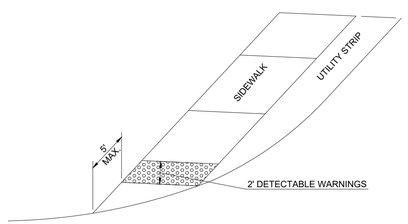
SIDEWALK CURB RAMPS
SHEET 15

STD. NO.
ROAD
028
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW
FLUSH SHOULDER
(OPTION A)



PICTORIAL VIEW
FLUSH SHOULDER
(OPTION B)

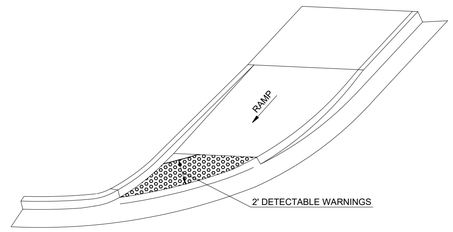
TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

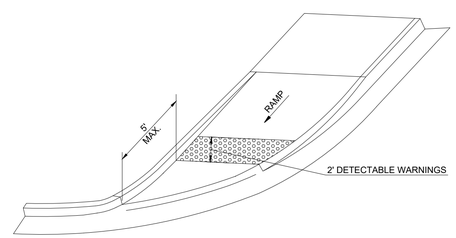
SIDEWALK CURB RAMPS
SHEET 16

STD. NO.
ROAD
029
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW CR-G SHOWN
(OPTION A) (CR-F AND CR-H SIMILAR)



PICTORIAL VIEW CR-G SHOWN
(OPTION B) (CR-F AND CR-H SIMILAR)

TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 17

STD. NO.
ROAD
030
REVISED
2018/06/04

ISSUED FOR BID

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No. 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: SCALE: AS SHOWN DECF
CHECKED BY: JJM
DATE: 07/09/2025
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

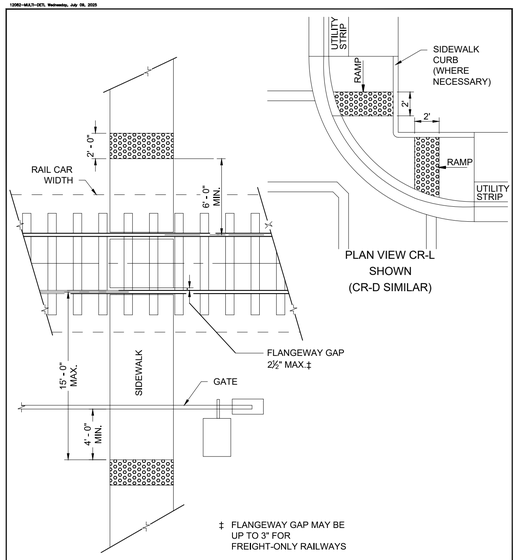
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 10

SHEET NO. DT-10
SHT # 138
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 19	STDS. NO. ROAD 032 DATE(S) 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

TABLE OF DETECTABLE WARNINGS

CURB RAMP TYPE	CURB RADIUS (FT)	TOTAL AREA (SF)
CR-A	N/A	8
CR-B	N/A	8
CR-C	N/A	8
CR-D	25	11
CR-E	N/A	8
CR-F	10	9
	20	11
	25	13
	30	14
CR-G	10	10
	20	11
	25	12
	30	14
CR-H	20	8
	25	8
	30	8
CR-K	N/A	8
CR-L	10	18
	15	13
FLUSH SHOULDER OPTION A	10	11
	20	14
	25	15
	30	17
	40	19
	50	21
FLUSH SHOULDER OPTION B	10	10
	20	10
	25	10

NOTE:

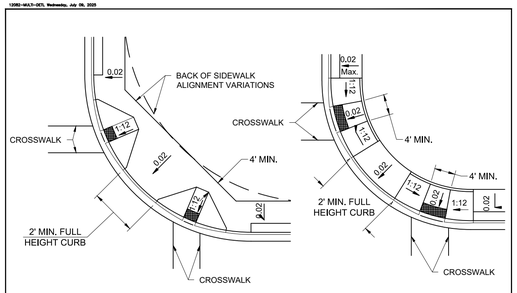
DUE TO CONSTRUCTION APPLICATIONS, CR-L IS THE ONLY CURB RAMP FOR WHICH A DETECTABLE WARNING QUANTITY WAS CALCULATED USING A CURB RADIUS OF 15'.

FOR FLUSH SHOULDER OPTIONS WITH 5' SIDEWALKS, THE BACK OF SIDEWALK IS MEASURED AT 10' FROM THE EDGE OF TRAVELED WAY.

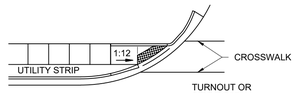
AREAS OF DETECTABLE WARNINGS FOR SIDEWALK CURB RAMP AND FLUSH SHOULDER APPLICATIONS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TABLE OF DETECTABLE WARNINGS SHEET 20	STDS. NO. ROAD 033 DATE(S) 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



RADIAL SIDEWALK RAMPS



LINEAR SIDEWALK RAMPS

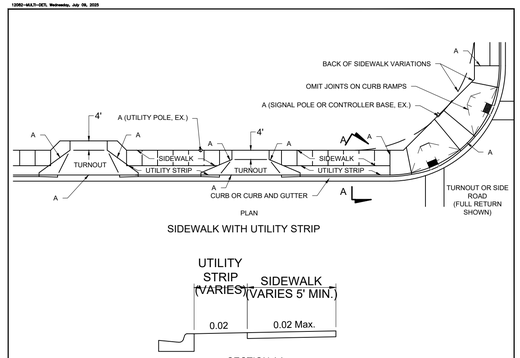
NOTES:

1. WHERE CROSSWALK MARKINGS ARE USED, RAMPS SHALL FALL WITHIN THE CROSSWALK LIMITS. A CLEAR SPACE OF 48" MINIMUM IS REQUIRED AT THE BOTTOM OF THE RAMP WITHIN A MARKED CROSSWALK. IF CROSSWALK MARKINGS ARE NOT PRESENT, A CLEAR SPACE OF 48" MINIMUM IS REQUIRED AT THE BOTTOM OF THE RAMP OUTSIDE OF ACTIVE TRAVEL LANES.
2. CROSSWALK WIDTHS AND CONFIGURATIONS VARY; MUST CONFORM TO INDEX NO. 17344 AND 17346.

TYPICAL PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS SHEET 21	STDS. NO. ROAD 034 DATE(S) 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES FOR CONCRETE SIDEWALK ON CURBED ROADWAYS

1. CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SPECIFICATION SECTION 522.
2. INCLUDE DETECTABLE WARNINGS ON SIDEWALK CURB RAMPS AND CONSTRUCT IN ACCORDANCE WITH INDEX NO. 304.
3. DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT URBAN FLARED TURNOUTS.
4. BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN ½".
5. FOR TURNOUTS SEE INDEX NO. 515.
6. CONSTRUCT SIDEWALKS WITH 1' THICK EDGE BEAM THROUGH THE LIMITS OF ANY SURFACE MOUNTED PEDESTRIAN/BICYCLE PICKET RAILING OR PIPE GUIDERAIL SHOWN IN THE PLANS.

CONCRETE SIDEWALK ON CURBED ROADWAYS

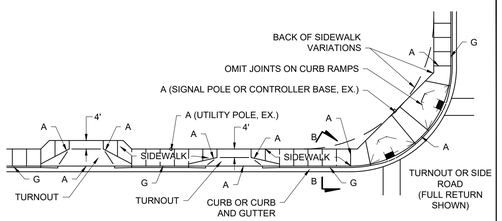
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE SIDEWALK SHEET 1	STDS. NO. ROAD 035 DATE(S) 2018/06/04

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025



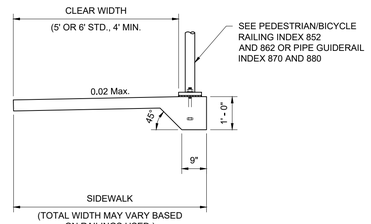
NOTES FOR CONCRETE SIDEWALK ON CURBED ROADWAYS

1. CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SPECIFICATION SECTION 522.
2. INCLUDE DETECTABLE WARNINGS ON SIDEWALK CURB RAMPS AND CONSTRUCT IN ACCORDANCE WITH INDEX NO. 304.
3. DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT URBAN FLARED TURNOUTS.
4. BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN ½".
5. FOR TURNOUTS SEE INDEX NO. 515.
6. CONSTRUCT SIDEWALKS WITH 1' THICK EDGE BEAM THROUGH THE LIMITS OF ANY SURFACE MOUNTED PEDESTRIAN/BICYCLE PICKET RAILING OR PIPE GUIDERAIL SHOWN IN THE PLANS.

CONCRETE SIDEWALK ON CURBED ROADWAYS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE SIDEWALK SHEET 2	STDS. NO. ROAD 036 DATE(S) 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



SIDEWALK WITH EDGE BEAM FOR SURFACE MOUNTED RAILINGS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE SIDEWALK SHEET 3	STDS. NO. ROAD 037 DATE(S) 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

BASE THICKNESS AND OPTION CODES

BASE GROUP	STRUCTURAL RANGE	BASE GROUP PAY ITEM NUMBER	Base Options: LIMEROCK, LBR 100	CEMENTED COQUINA, LBR 100	SHELL ROCK, LBR 100	BANK RUN SHELL, LBR 100	RECYCLED CONCRETE AGGREGATE, LBR 100 **	GRADED AGGREGATE BASE, LBR 100	TYPE B-12.5	B-12.5 AND 4" GRANULAR MIN. BASE, LBR 100	RAP BASE
			STRUCTURAL NUMBER (PER. IN.)								
			(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.15)	(0.30)	(0.30 & 0.15)	(NA)
1	0.65-0.75	701	4"	4"	4"	4"	4"	4½"	4"		□ 5"
2	0.80-0.90	702	5"	5"	5"	5"	5"	5½"	4"		
3	0.95-1.05	703	5½"	5½"	5½"	5½"	5½"	6½"	4"		
4	1.05-1.15	704	6"	6"	6"	6"	6"	7½"	4"		
5	1.25-1.35	705	7"	7"	7"	7"	7"	8½"	4½"		
6	1.35-1.50	706	8"	8"	8"	8"	8"	9"	5"		
7	1.50-1.65	707	8½"	8½"	8½"	8½"	8½"	10"	5½"		
8	1.65-1.75	708	9½"	9½"	9½"	9½"	9½"	11"	5½"		
9	1.75-1.85	709	10"	10"	10"	10"	10"	12"	6"	4"	
10	1.90-2.00	710	11"	11"	11"	11"	11"	Ø 13"	6½"	4½"	
11	2.05-2.15	711	12"	12"	12"	12"	12"	Ø 14"	7"	5"	
12	2.20-2.30	712	12½"	12½"	12½"	12½"	12½"		7½"	5½"	
13	2.35-2.45	713	Ø 13½"	Ø 13½"	Ø 13½"	Ø 13½"	Ø 13½"		8"	6"	
14	2.45-2.55	714	Ø 14"	Ø 14"	Ø 14"	Ø 14"	Ø 14"		8½"	6½"	
15	2.60-2.70	715							9"	7"	

* FOR GRANULAR SUBBASE, THE CONSTRUCTION OF BOTH THE SUBBASE AND TYPE B-12.5 WILL BE BID AND USED AS OPTIONAL BASE. GRANULAR SUBBASES INCLUDE LIMEROCK, CEMENTED COQUINA, SHELL ROCK, BANK RUN SHELL, RECYCLED CONCRETE AGGREGATE AND GRADED AGGREGATE BASE. THE BASE THICKNESS SHOWN IS TYPE B-12.5. ALL SUBBASE THICKNESSES ARE 4" MINIMUM.

** FOR RESTRICTIONS ON THE USE OF RECYCLED CONCRETE AGGREGATE - SEE SPECIFICATIONS SECTION 911.

Ø TO BE USED FOR WIDENING, THREE FEET OR LESS.

BASED ON MINIMUM PRACTICAL THICKNESSES.

□ FOR RESTRICTIONS ON THE USE OF RAP BASE - SEE STANDARD SPECIFICATIONS.

GENERAL NOTES

1. WHERE BASE OPTIONS ARE SPECIFIED IN THE PLANS, ONLY THOSE OPTIONS MAY BE BID AND USED.
2. IN SITUATIONS WHERE THE DESIGNER REQUIRES THE USE OF A SINGLE BASE OPTION, AS SHOWN IN THE PLANS, BID AND USE AS OPTIONAL BASE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	OPTIONAL BASE GROUP & STRUCTURAL NUMBERS	STDS. NO. ROAD 038 DATE(S) 2018/06/04

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

NO.	DATE	BY	CHK'D	DESCRIPTION

REVISIONS

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 11

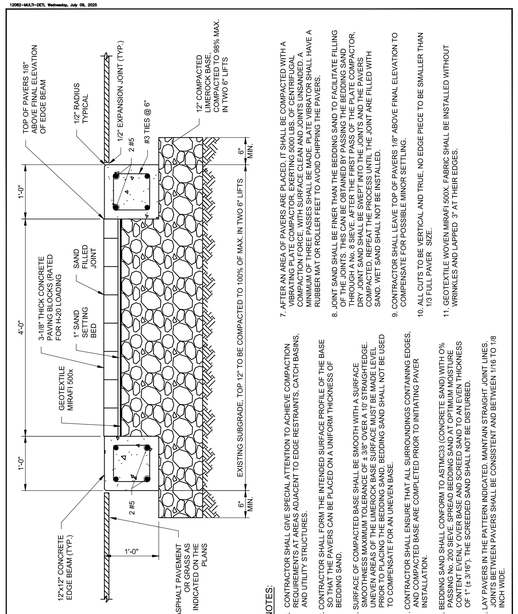
SHEET NO. DT-11 | SHT # 139

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

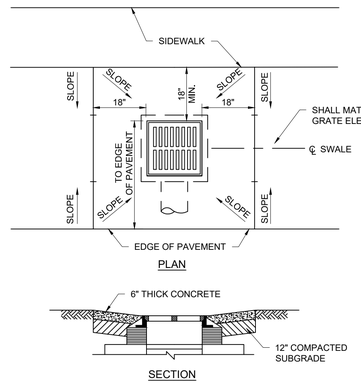


NOTES:

1. CONTRACTOR SHALL GIVE SPECIAL ATTENTION TO ACHIEVE COMPACTION REQUIREMENTS AT AREAS ADJACENT TO EDGE RESTRAINTS, CATCH BASINS, AND UTILITY STRUCTURES.
2. CONTRACTOR SHALL FORM THE INTENDED SURFACE PROFILE OF THE BASE SO THAT THE PAVERS CAN BE PLACED ON A UNIFORM THICKNESS OF BEDDING SAND.
3. SURFACE OF COMPACTED BASE SHALL BE SMOOTH WITH A SURFACE SMOOTHNESS MAXIMUM TOLERANCE OF ± 3/8" OVER A 10' STRAIGHTEDGE. HARDENED SURFACE IMPERFECTIONS OF THE BASE MUST BE CORRECTED PRIOR TO PLACING THE BEDDING SAND. BEDDING SAND SHALL NOT BE USED TO COMPENSATE FOR AN UNEVEN BASE.
4. CONTRACTOR SHALL ENSURE THAT ALL SURROUNDINGS CONTAINING EDGES, SUCH AS CURBS, ARE COMPLETED PRIOR TO INITIATING PAVER INSTALLATION.
5. BEDDING SAND SHALL CONFORM TO ASTM C33 (CONCRETE SAND) WITH 0% PASSING No. 200 SIEVE, SPREAD BEDDING SAND AT OPTIMUM MOISTURE CONTENT IN FULL SCREED BASIS. BEDDING SHALL BE SCREED TO A UNIFORM COMPACTED THICKNESS OF 1" BEFORE PAVERS ARE PLACED.
6. LAY PAVERS IN THE PATTERN INDICATED, MAINTAIN STRAIGHT JOINT LINES. JOINTS BETWEEN PAVERS SHALL BE CONSISTENT AND BETWEEN 1/16 TO 1/8 INCH WIDE.
7. AFTER AN AREA OF PAVERS ARE PLACED, IT SHALL BE COMPACTED WITH A VIBRATING PLATE COMPACTOR, EXERTING 3000 LBS. OF CENTRIFUGAL COMPACTION FORCE AND HAVING A PLATE AREA OF 300 SQUARE INCHES. A MINIMUM OF THREE PASSES SHALL BE MADE. PLATE VIBRATOR SHALL HAVE A RUBBER MAT OR ROLLER FEET TO AVOID CHIPPING THE PAVERS.
8. JOINT SAND SHALL BE FINER THAN THE BEDDING SAND TO FACILITATE FILLING OF THE JOINTS. THOROUGHLY SWEEP SAND INTO JOINTS. MAKE TWO PASSES THROUGH A No. 8 SIEVE. AFTER THE FIRST PASS OF THE PLATE COMPACTOR, SWEEP ADDITIONAL JOINT SAND INTO THE JOINTS. AFTER THE SECOND PASS COMPACTED. REPEAT THE PROCESS UNTIL THE JOINT ARE FILLED WITH SAND. WET SAND SHALL NOT BE INSTALLED.
9. CONTRACTOR SHALL LEAVE TOP OF PAVERS 1/8" ABOVE FINAL ELEVATION TO COMPENSATE FOR POSSIBLE MINOR SETTLING.
10. ALL CUTS TO BE VERTICAL AND TRUE. NO EDGE PIECE TO BE SMALLER THAN 1/3 FULL PAVER SIZE.
11. GEOTEXTILE WOVEN MIRAFI 500X FABRIC SHALL BE INSTALLED WITHOUT WRINKLES AND LAPPED 3' AT THEIR EDGES.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DECORATIVE PAVERS IN ROADWAY	STD. No. ROAD 039 DATE 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

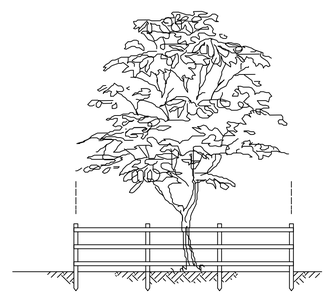


NOTES

1. PAVING AROUND CATCH BASIN TO BE 6" THICK CONCRETE ON COMPACTED SUBGRADE
2. PAVE 18" WIDE (MIN.) APRON ON (3) SIDES. EXTEND FOURTH SIDE TO EDGE OF PAVEMENT.
3. IF DISTANCE FROM BACK OF CATCH BASIN TO FRONT OF SIDEWALK IS 3.0' OR LESS, EXTEND APRON TO FRONT OF SIDEWALK.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CATCH BASIN APRON DETAIL CONCRETE SHEET 1	STD. No. ROAD 040 DATE 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

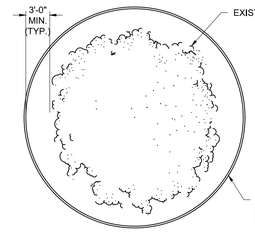


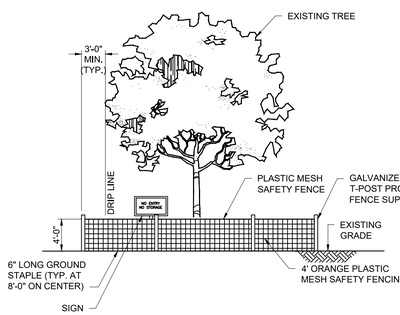
NOTES:

1. BEFORE SITE CLEARING BEGINS PROVIDE NECESSARY MEASURES TO ASSURE SURVIVAL OF VEGETATION.
2. REMOVE BARRIERS AND RESTORE SURFACES PRIOR TO FINAL CLOSEOUT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TREE PROTECTION BARRIER	STD. No. ROAD 101 DATE 2017/07/17

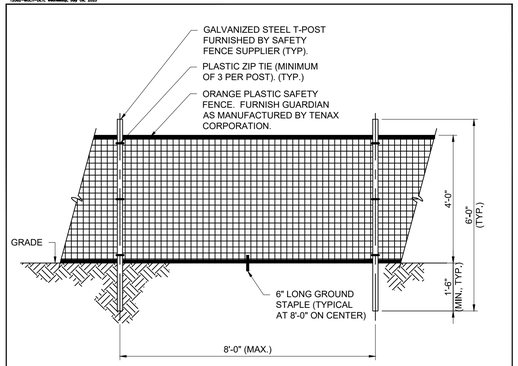
12082-MULTI-DETL Wednesday, July 09, 2025





CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TREE PROTECTION FENCE	STD. No. ROAD 102 DATE 2017/07/24

12082-MULTI-DETL Wednesday, July 09, 2025

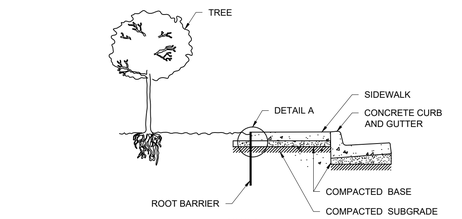


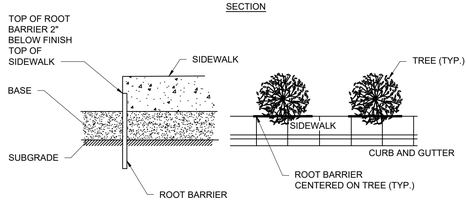
NOTES:

1. REBAR SHALL NOT BE USED FOR SUPPORTING THE FENCE.
2. LOOP THE ZIP TIES THROUGH THE AVAILABLE HOLES OR "TEETH" IN THE POST TO PREVENT THE FENCE FROM SLIDING DOWN THE POST.
3. PLASTIC ZIP TIES SHALL BE AS FOLLOWS:
   A. MINIMUM WIDTH = 0.3 INCHES.
   B. LENGTH = AS REQUIRED.
   C. COLOR = BLACK WITH UV STABILIZER.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	PLASTIC SAFETY FENCE	STD. No. ROAD 103 DATE 2018/09/21

12082-MULTI-DETL Wednesday, July 09, 2025





NOTES:

1. ROOT BARRIERS SHALL BE INSTALLED WHEN ROOT BALL IS WITHIN 8'-0" OF SIDEWALK OR AS INDICATED ON THE PLANS.
2. ROOT BARRIER SHALL BE UB 24-2 BY DEEPROOT, OR EQUAL. SUBMIT SHOP DRAWING.
3. TRENCH TO APPROPRIATE DEPTH FOR INSTALLATION OF ROOT BARRIER SO THAT TOP OF BARRIER IS 2" BELOW TOP OF SIDEWALK .
4. PLACE ROOT BARRIER IN TRENCH, VERTICAL RIBS MUST FACE TOWARD TREE ROOTS.
5. BACKFILL AND COMPACT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	ROOT BARRIER	STD. No. ROAD 104 DATE 2018/09/21

12082-MULTI-DETL Wednesday, July 09, 2025

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (NOTE 1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (NOTE 2)	WATER MAIN 3 FT. MINIMUM OTHER PIPE	WATER MAIN 12 INCHES IS THE MINIMUM, EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND12 INCHES IS PREFERRED OTHER PIPE	NOTE 4 WATER MAIN JOINT (TYP.)
VACUUM SANITARY SEWER	WATER MAIN 10 FT PREFERRED 3 FT. MINIMUM OTHER PIPE	WATER MAIN 12 INCHES IS PREFERRED 6 INCHES MINIMUM OTHER PIPE	NOTE 4 WATER MAIN
GRAVITY SANITARY SEWER, (NOTE 3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER	WATER MAIN 10 FT PREFERRED 6 FT. MINIMUM OTHER PIPE	WATER MAIN 12 INCHES IS THE MINIMUM, EXCEPT FOR GRAVITY SEWER, THEN 6 INCHES IS THE MINIMUM AND 12 INCHES IS PREFERRED OTHER PIPE	NOTE 4 WATER MAIN OTHER PIPE (TYP.)
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—

NOTES:

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATE JOINT LOCATIONS ALLOWED UNDER FAC 62-555.314 WILL ONLY BE ALLOWED BY THE ENGINEER ON A CASE-BY-CASE BASIS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	WATER MAIN SEPARATION	STD. No. WATR 001 DATE 2016/09/01

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY of FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

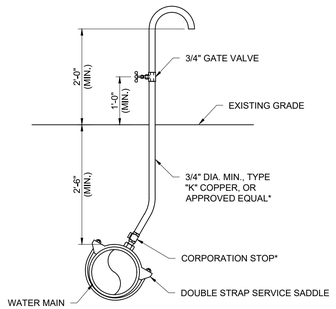
REVISIONS NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
STANDARD DETAILS - SHEET 12

SHEET NO. DT-12
SHT # 140
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



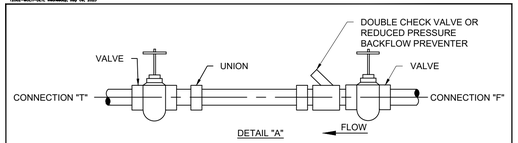
* NOTE: AFTER TESTS REMOVE 3/4" TUBING AND INSTALL PLUG ON CORPORATION STOP.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

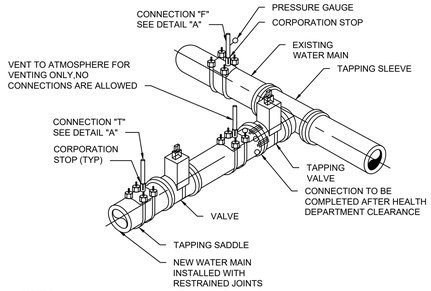
BACT SAMPLE POINT - TEMPORARY

STD. NO. WATR 002
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



DETAIL "A"



NOTES:

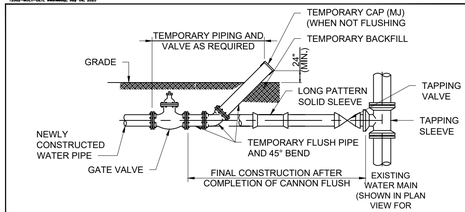
1. REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON EXISTING MAIN AFTER FILLING AND FLUSHING OF NEW LINE.
2. DO NOT REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON NEW MAIN UNTIL ALL TESTING HAS BEEN CLEARED BY HEALTH DEPARTMENT.
3. CLOSE CORPORATION STOPS AND PLUG/CAP WITH LEAD-FREE BRASS FITTINGS AFTER SAMPLING IS COMPLETED.
4. CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

FILLING AND FLUSHING CONNECTION

STD. NO. WATR 004
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. FLUSHING LOCATIONS ARE TO BE PROPOSED BY CONTRACTOR AND APPROVED BY ENGINEER OF RECORD.
2. UPON COMPLETION OF THE PIPE INSTALLATION FOR ANY SECTION, THE MAINS SHALL BE CANNON FLUSHED TO REMOVE DIRT AND ANY OTHER FOREIGN MATTER.
3. INSTALL A TEMPORARY 45° BEND, VALVE AND ASSOCIATED TEMPORARY PIPING AS SHOWN TO DIRECT THE FLUSHING WATER AWAY FROM THE IMMEDIATE WORK AREA AND EXERCISE DUE CARE SO AS TO ENSURE THAT THE WATER USED IN FLUSHING DOES NOT CAUSE A NUISANCE OR INFLICT PROPERTY DAMAGE.
4. BENDS AND PIPING SHALL BE THE SAME SIZE OR LARGER AS THE LINE BEING FLUSHED.
5. PRIOR TO THE ACTUAL LINE FLUSHING OPERATION THE CONTRACTOR SHALL PROPERLY NOTIFY OWNER'S INSPECTOR OF SUCH INTENDED WATER USE.
6. NO EXISTING VALVES SHALL BE OPERATED, EXCEPT BY AUTHORIZED OWNER PERSONNEL.
7. FLUSHING SHALL NOT BE ACCOMPLISHED WITHOUT THE ACTUAL PRESENCE OF THE OWNER'S INSPECTOR.
8. AFTER THE LINE UNDER CONSTRUCTION HAS BEEN SUCCESSFULLY FLUSHED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY PIPING ARRANGEMENT AND PROCEED WITH THE REMAINING CONSTRUCTION AS SPECIFIED.
9. ALL PIPING SHALL BE RESTRAINED.
10. CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.
11. CONTRACTOR IS CAUTIONED THAT GOVERNING AGENCIES OR UTILITIES MAY HAVE REGULATIONS LIMITING OR PROHIBITING DISCHARGE INTO SEWERS, SURFACE WATERS, CANALS, DITCHES AND OTHER CONVEYANCES/RETENTION AREAS. ALL COMPLIANCE WITH GOVERNING AGENCY REQUIREMENTS (INCLUDING PERMITTING, IF REQUIRED) IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
12. CANNON FLUSHING TO PROCEED AFTER HEALTH DEPARTMENT CLEARANCE IS RECEIVED.

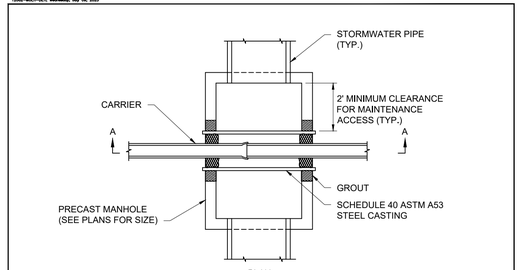
FLUSHING CONNECTION
NOT TO SCALE

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

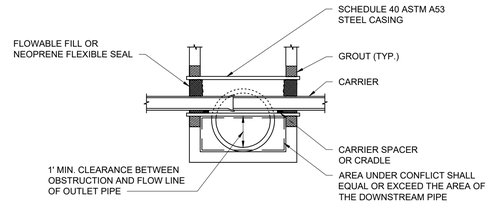
CANNON FLUSHING

STD. NO. WATR 005
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



PLAN



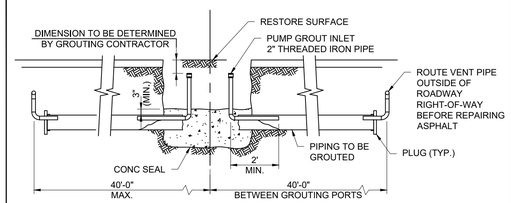
SECTION A-A

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CONFLICT MANHOLE

STD. NO. WATR 011
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTE:

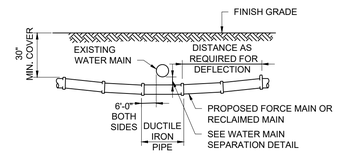
1. PROVIDE PLUGS, CORPORATION STOPS AND PIPING AS REQUIRED TO REMOVE AIR FROM THE ABANDONED PIPELINES WHILE GROUTING.

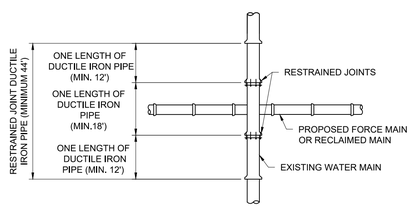
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PIPE GROUTING

STD. NO. WATR 012
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025





NOTE:

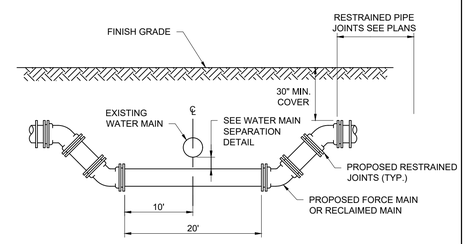
1. JOINTS SHALL NOT BE DEFLECTED MORE THAN 50% OF MANUFACTURER'S RECOMMENDED DEFLECTION.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

UTILITY CROSSING DEFLECTION TYPE

STD. NO. WATR 013
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTE:

1. WHEREVER POSSIBLE, DEFLECTION OF THE PIPE (PER THE DETAIL TITLED "UTILITY CROSSING - DEFLECTION TYPE") SHALL BE USED TO AVOID EXISTING OBSTRUCTIONS. THIS DETAIL SHALL BE USED ONLY WHEN APPROVED BY ENGINEER.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

UTILITY CROSSING FITTING TYPE

STD. NO. WATR 014
EFFECTIVE 2015/09/21

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

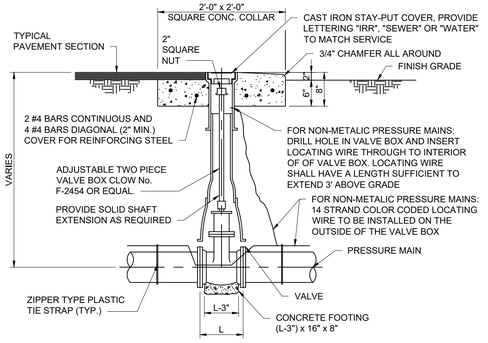
ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 13

SHEET NO. DT-13
SHT # 141
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

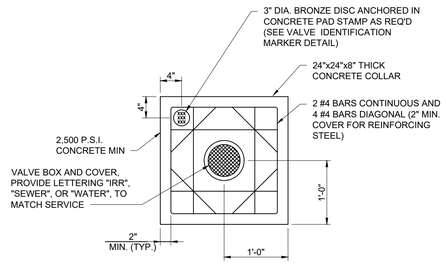


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE BOX

WATR. DR. WATR 015 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025

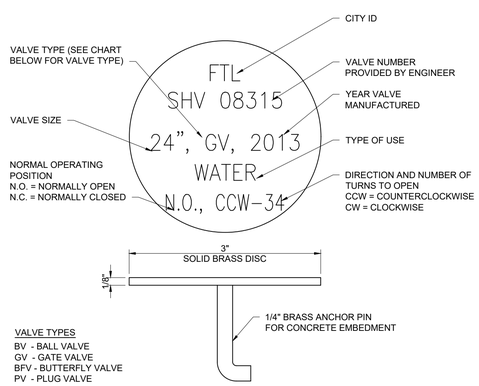


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE BOX COLLAR

WATR. DR. WATR 016 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



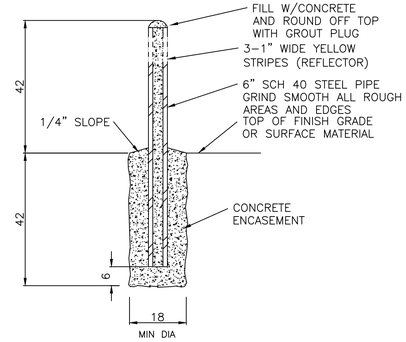
NOTES:

1. VALVE INFORMATION TO BE ENGRAVED INTO TOP SURFACE WITH 1/4" CAPITAL LETTERS.
2. ENTIRE MARKER TO BE COATED WITH CLEAR EPOXY TO PREVENT TARNISHING.
3. MARKERS SHALL BE MANUFACTURED BY WAGER COMPANY OF FLORIDA.

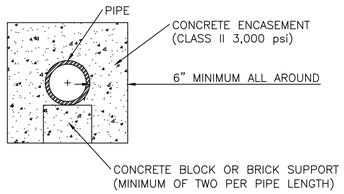
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE ID MARKER

WATR. DR. WATR 017 2015/09/21

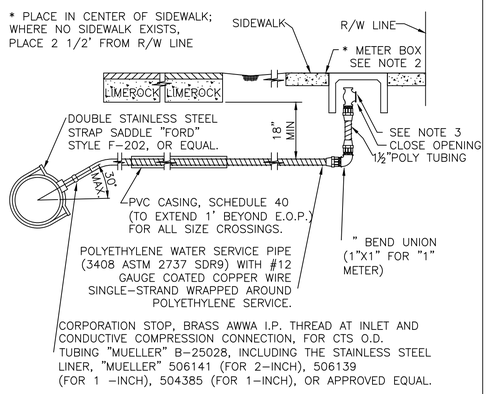


NOTE:
ALL STEEL MUST BE COMPLETELY PAINTED AFTER INSTALLATION WITH ZINC-RICH RUST INHIBITIVE PAINT. (TRAFFIC YELLOW).



NOTES:

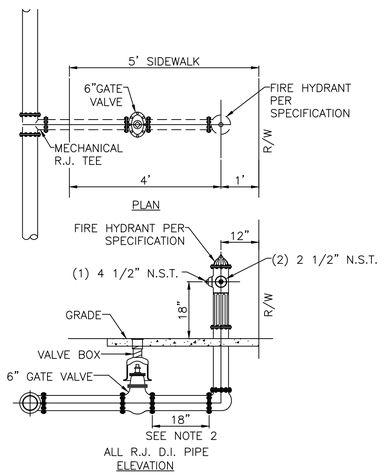
1. WHERE MINIMUM COVER, 36", IS NOT AVAILABLE ENCASEMENT WILL BE REQUIRED.
2. ALL CONCRETE ENCASEMENTS MUST BE FORMED AND INSPECTED BY THE CITY'S INSPECTOR PRIOR TO PLACING CONCRETE AND BACKFILLING.
3. WRAP PIPE IN VISQUEEN PRIOR TO POURING ENCASEMENT.
4. AT CROSSINGS, ENCASEMENT SHALL EXTEND TEN FEET (10') ON EITHER SIDE OF CROSSING.
5. BEGINNING AND ENDING OF ENCASEMENTS SHALL NOT BE MORE THAN 6" FROM A PIPE JOINT.



NOTE:

1. GROUND KEY ANGLE METER STOP,CONDUCTIVE COMPRESSION FOR CTS O.D. TUBING, X METER FLANGE 180° TURN CHECK-LOCK WING "MUELLER" H-14277, FOR 2-INCH INCLUDING THE STAINLESS STEEL LINER, "MUELLER" 506141 (FOR 2-INCH) OR APPROVED EQUAL, AND MUELLER 110 COMPRESSION CONNECTION.
2. METER BOXES FOR 5/8, 3/4, AND 1 INCH METERS SHALL BE THE OKIE DOKIE #890-40-260282 MEDIUM BOX AND 890-40-260257 MEDIUM LID OR EQUAL.
3. CONNECT ANGLE VALVE TO EXISTING METER WHERE APPLICABLE.

300 TYPICAL WATER SERVICE INSTALLATION
Scale: 1" = 1'



NOTES:

1. ACTUAL LOCATION OF FIRE HYDRANT TO BE DECIDED IN THE FIELD WITH ENGINEER'S APPROVAL.
2. KEEP VALVE AS CLOSE AS POSSIBLE TO THE HYDRANT.

302 TYPICAL NEW FIRE HYDRANT ASSEMBLY INSTALLATION
Scale: 1" = 2'

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
DATE: 07/09/2025
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

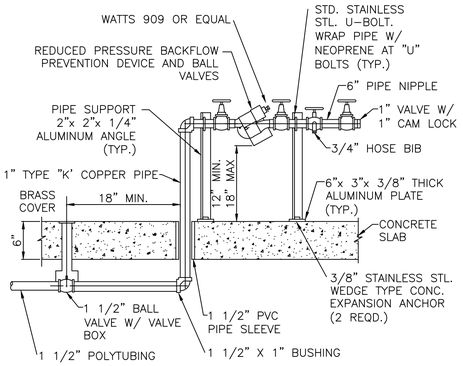
PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 14

SHEET NO. DT-14
SHT # 142
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

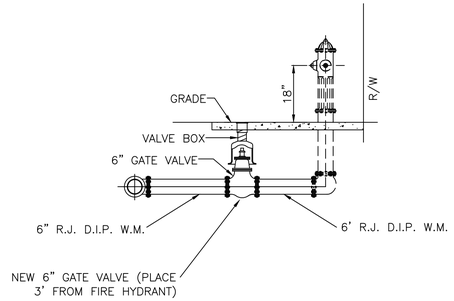
Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com



307 REDUCED PRESSURE BACKFLOW PREVENTER WITH HOSE CONNECTION FOR LIFT STATION

Scale: 1" = 1'

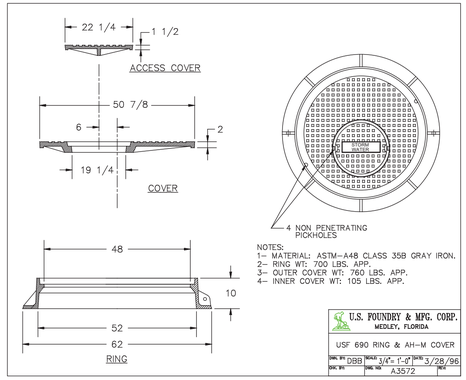


NOTES:

1. RECONNECT EXISTING FIRE HYDRANT TO NEW WATER MAIN.
2. KEEP VALVE AS CLOSE AS POSSIBLE TO THE HYDRANT.
3. WHEN FIRE HYDRANT "TEE" IS ON P.V.C. PIPE RUN, CONSTRUCT 1 LENGTH OF D.I.P. (R.J.) PIPE ON EACH SIDE OF FIRE HYDRANT "TEE".

308 RELOCATE OR CONNECT EXISTING FIRE HYDRANT

Scale: 1" = 2'



NOTES:

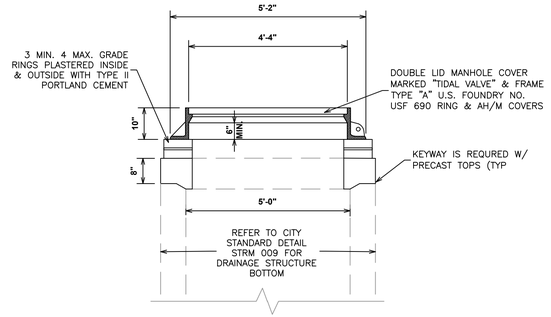
1- MATERIAL: ASTM-A48 CLASS 35B GRAY IRON.
2- RING WT: 700 LBS. APP.
3- OUTER COVER WT: 760 LBS. APP.
4- INNER COVER WT: 105 LBS. APP.

NOTES:

1. PRECAST CONCRETE TOP SLAB 4000 P.S.I.
2. REINFORCEMENT SHALL BE DESIGN BY THE MANUFACTURER TO COMPLY WITH FDOT INDEX 425.
3. LIFT HOLES ARE PERMITTED AND SHALL BE COATED WITH MORTAR INSIDE AND OUTSIDE AFTER INSTALLATION.
4. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH A.S.T.M. C-478 LATEST STANDARD.
5. CONCRETE COLLAR REQUIRED WHEN MANHOLE IS OUTSIDE PAVEMENT, SEE CITY STANDARD DETAIL ROAD 040.
6. IF MANHOLE IS LARGER THAN 4' DIAMETER USE REDUCING GRADE RING OR CONE SECTION.
7. SET STRUCTURE FRAME ON A BED OF PORTLAND CEMENT AND SILICA SAND. BRING MORTAR UP TO FRAME.

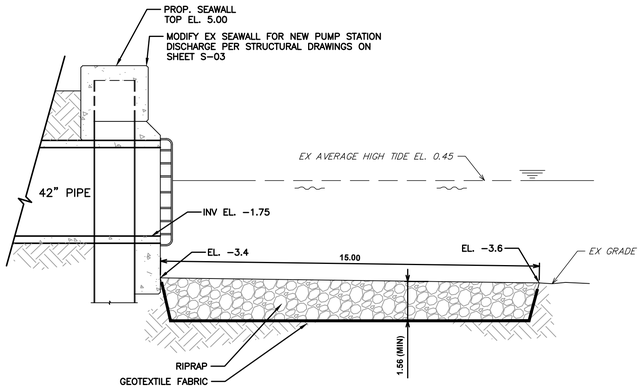
60" Ø OUTFALL STRUCTURE DETAIL

N.T.S



12" SWALE PROFILE

N.T.S

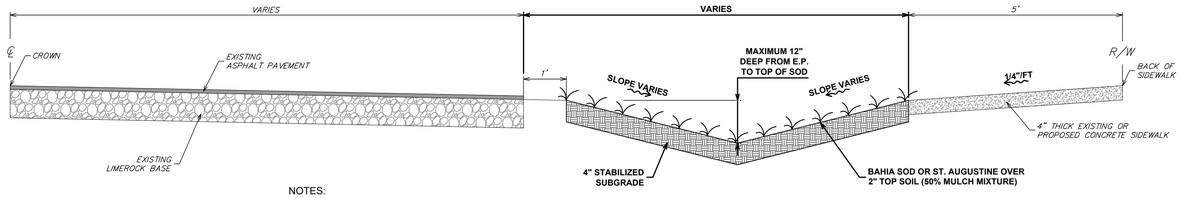


NOTES:

1. CONTRACTOR SHALL REMOVE ANY EXISTING FILTER FABRIC, RUBBLE, AND DEBRIS PRIOR TO INSTALLING RIPRAP.
2. CONTRACTOR SHALL ADD AND/OR REMOVE MATERIAL DURING INSTALLATION TO ENSURE THE BOTTOM ELEVATION OF THE WATERWAY, PRIOR TO SCOUR, IS NOT ALTERED.
3. CONTRACTOR SHALL FIELD VERIFY AREA OF EXISTING SCOUR PRIOR TO INSTALLING RIPRAP SYSTEM.
4. RIPRAP SHALL BE WELL-GRADED, ROUNDED STONES WITH AN AVERAGE EQUIVALENT DIAMETER OF 7 INCHES (APPROXIMATELY 5 INCHES TO 9 INCHES AND 5 TO 40 POUNDS). CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR ENGINEER'S REVIEW.
5. CONTRACTOR TO PROTECT EXISTING SEAGRASS, TO REMAIN.
6. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR OUTFALL/SEAWALL REQUIREMENTS.

PUMP STATION OUTFALL RIPRAP DETAIL

N.T.S



NOTES:

1. CONTRACTOR SHALL CENTER BOTTOM OF SWALE BETWEEN EDGE OF PAVEMENT AND R/W LINE IF NO SIDEWALK EXIST.
2. SLOPE VARIES BY ELEVATION OF INVERT OF SWALE ON PLANS TO A MAXIMUM OF 1.8:/FT. IF NOT INVERT IS PROVIDED FOLLOW STANDARD MAXIMUM SWALE DEPTH OF 6" TO CONSTRUCT SIDE SLOPE.

12" SWALE PROFILE

N.T.S

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DATE: 07/09/2025
DESIGNED BY: DECF
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CH'D	DESCRIPTION

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ISSUED FOR BID

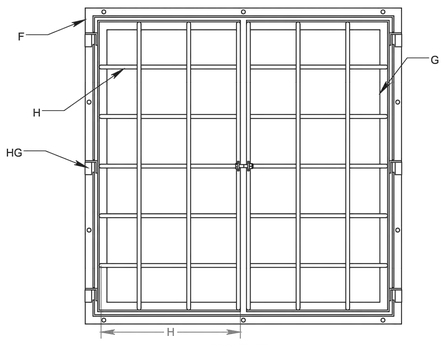
PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 15

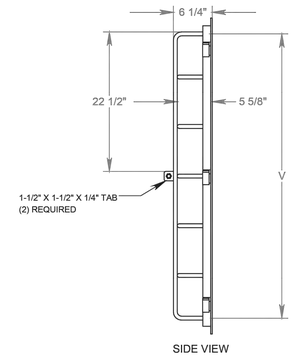
SHEET NO. DT-15
SHT # 143
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ENVIRONMENTAL COMPOSITES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ENVIRONMENTAL COMPOSITES, INC. IS PROHIBITED.

HINGED MANATEE GATE FOR A 42" DIA. PIPE



FRONT VIEW



SIDE VIEW

ITEM	DESCRIPTION	QTY.	DIMENSIONS
F	1 ½" X 1 ½" X ¼" STEEL ANGLE FRAME	1	51" X 51"
G	1 ½" X 1 ½" X ¼" STEEL ANGLE GATE	2	23" X 47"
H	½" STEEL ROUND BAR – HORIZONTAL	10	22-7/16"
V	½" STEEL ROUND BAR – VERTICAL	6	45-7/8"
HG	STANDARD STEEL HINGE	6	2" X 2"

HARDWARE: (10) 3/8" X 2-3/4" SS WEDGE ANCHORS

SCALE: NTS — DIMENSIONS ARE IN INCHES TOLERANCE ±N/A UNLESS OTHERWISE SPECIFIED — 3RD ANGLE PROJECTION

DATE: February 18, 2025 | **QUOTE #:** 2502297 | **QT LINE #:** 1

CUSTOMER: CHEN MOORE AND ASSOCIATES | **DRN BY:** PBRENNAN

JOB CITY OF FT LAUDERDALE HINGED GRATE 42

SO#: | **SO LINE#:** | **QTY:** 1

STRUCTURE # (s):

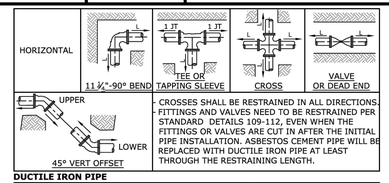
ENVIRONMENTAL COMPOSITES
4250 LAKE INDUSTRIAL BLVD.
TAVARES, FL 32778-9506 USA
PHONE: 352-343-3449 FAX: 352-343-5577

SOLIDWORKS

BROWARD COUNTY
PUBLIC WORKS DEPARTMENT

WATER & WASTEWATER SERVICES
ENGINEERING DIVISION
2555 WEST COPANS ROAD
POMPANO BEACH, FL 33069
PHONE NO. 954-831-0745
FAX: 954-831-0925

STANDARD DETAIL



- CROSSES SHALL BE RESTRAINED IN ALL DIRECTIONS.
- FITTINGS AND VALVES NEED TO BE RESTRAINED PER STANDARD DETAILS 109-112, EVEN WHEN THE FITTINGS OR VALVES ARE CUT IN AFTER THE INITIAL PIPE INSTALLATION. ASBESTOS CEMENT PIPE WILL BE REPLACED WITH DUCTILE IRON PIPE AT LEAST THROUGH THE RESTRAINING LENGTH.

DUCTILE IRON PIPE

	HORIZONTAL, L (FEET)						45° VERTICAL OFFSET (FEET)	
Diameter	11 ¼°	22 ½°	45°	90°	Tee or Cross	Valves and Dead End	UPPER	LOWER
4	1	2	4	10	7	20	9	4
6	2	3	6	14	15	28	12	5
8	2	4	8	17	23	37	16	7
10	2	5	9	21	30	44	19	8
12	3	5	10	24	38	52	22	9

PVC PIPE

	HORIZONTAL, L (FEET)						45° VERTICAL OFFSET (FEET)	
Diameter	11 ¼°	22 ½°	45°	90°	Tee or Cross	Valves and Dead End	UPPER	LOWER
4	2	3	5	12	11	32	14	5
6	2	4	7	16	23	45	19	6
8	3	5	9	21	37	59	25	8
10	3	5	11	25	48	71	30	9
12	3	6	12	29	61	83	35	11

THE NOTED REQUIREMENTS WERE CALCULATED IN ACCORDANCE WITH THRUST RESTRAINT CALCULATOR V7.2 BY EBAA IRON WITH THE FOLLOWING ASSUMPTIONS:
SOIL CONDITIONS: SW OR GW; NOMINAL SIZE EQUALS BRANCH SIZE; LENGTH ALONG RUN EQUALS 4 FEET
LAYING CONDITION: 4, SAND BEDDING, BACKFILL COMPACTED > 80%; VERTICAL LOW SIDE DEPTH EQUALS 3.5 FEET
MINIMUM COVER: 3.0 FT SAFETY FACTOR: 1.5 BARE PIPE (NO POLY WRAP)
IF FIELD CONDITIONS DIFFER FROM THE ABOVE, CONTRACTOR SHALL NOTIFY WWS.
FOR PIPE LARGER THAN INCLUDED IN THE ABOVE TABLES, ENGINEER OF RECORD SHALL SUBMIT CALCULATIONS FOR EACH JOINT REQUIRING RESTRAINT.

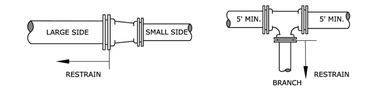
SINGLE FITTING RESTRAINED JOINT
150 PSI TEST PRESSURE

REVISED	RESTRAINED JOINT REQUIREMENTS SINGLE FITTING	FIGURE 109
7/7/2021		

BROWARD COUNTY
PUBLIC WORKS DEPARTMENT

WATER & WASTEWATER SERVICES
ENGINEERING DIVISION
2555 WEST COPANS ROAD
POMPANO BEACH, FL 33069
PHONE NO. 954-831-0745
FAX: 954-831-0925

STANDARD DETAIL



STRAIGHT REDUCER

DUCTILE IRON PIPE

SMALL SIDE \ DIAMETER	6"	8"	10"	12"
4"	15'	27'	36'	45'
6"		16'	27'	38'
8"			15'	28'
10"				16'

PVC PIPE

SMALL SIDE \	6"	8"	10"	12"
4"	24'	43'	58'	72'
6"		25'	44'	61'
8"			24'	44'
10"				25'

TEE REDUCER

DUCTILE IRON PIPE

BRANCH SIZE \ DIAMETER	6"	8"	10"	12"
4"	1'	1'	1'	1'
6"		6'	1'	1'
8"			15'	10'
10"				23'

PVC PIPE

BRANCH SIZE \	6"	8"	10"	12"
4"	1'	1'	1'	1'
6"		16'	8'	1'
8"			31'	25'
10"				44'

THE NOTED REQUIREMENTS WERE CALCULATED IN ACCORDANCE WITH THRUST RESTRAINT CALCULATOR V7.2 BY EBAA IRON WITH THE FOLLOWING ASSUMPTIONS:
SOIL CONDITIONS: SW OR GW; LENGTH ALONG RUN EQUALS 4 FEET
LAYING CONDITION: 4, SAND BEDDING, BACKFILL COMPACTED > 80%
MINIMUM COVER: 3.0 FT;SAFETY FACTOR: 1.5;BARE PIPE (NO POLY WRAP)
IF FIELD CONDITIONS DIFFER FROM THE ABOVE, CONTRACTOR SHALL NOTIFY WWS.
FOR PIPE LARGER THAN INCLUDED IN THE ABOVE TABLES, ENGINEER OF RECORD SHALL SUBMIT CALCULATIONS FOR EACH JOINT REQUIRING RESTRAINT.

RESTRAINED REDUCING FITTING
150 PSI TEST PRESSURE

REVISED	RESTRAINED JOINT REQUIREMENTS REDUCING FITTINGS	FIGURE 112
7/7/2021		

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE: No: 85538
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DATE: 07/09/2025
DESIGNED BY: DECF | SCALE: AS SHOWN
CHECKED BY: JJM | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS				
NO.	DATE	BY	CHK'D	DESCRIPTION
1	07/09/2025	JLS	DECF	ADDENDUM #4

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

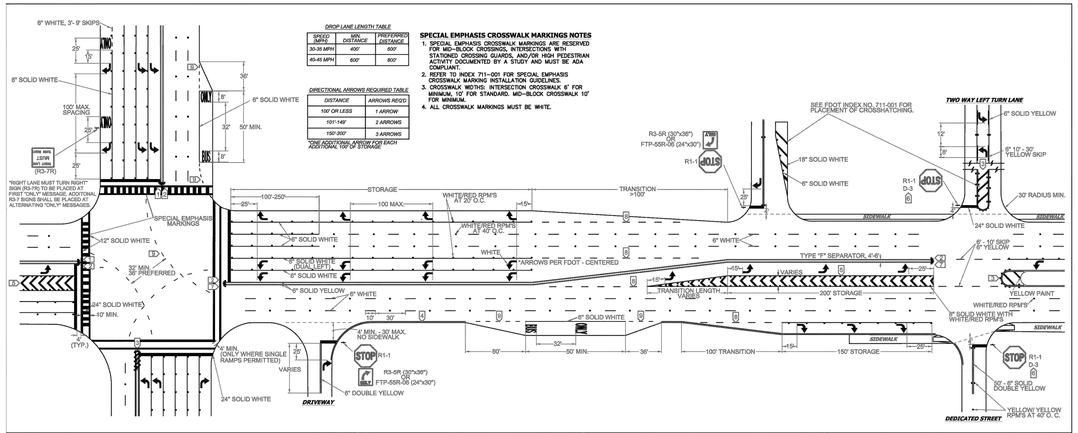
cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 16

SHEET NO.	SHT #
DT-16	144
TOTAL:	233
CAD FILE: 12082-MULTI-DETL	
DRAWING FILE NO. 4-144-88	



DROP LANE LENGTH TABLE

SPEED (MPH)	MIN. DISTANCE	PREFERRED DISTANCE
30-35 MPH	400'	600'
40-45 MPH	600'	800'

DIRECTIONAL ARROWS REQUIRED TABLE

DISTANCE	ARROWS REQ'D
100' OR LESS	1 ARROW
101'-149'	2 ARROWS
150'-200'	3 ARROWS

*ONE ADDITIONAL ARROW FOR EACH ADDITIONAL 100' OF STORAGE

SPECIAL EMPHASIS CROSSWALK MARKINGS NOTES

1. SPECIAL EMPHASIS CROSSWALK MARKINGS ARE RESERVED FOR MID-BLOCK CROSSWALK INTERSECTIONS WITH STATIONED CROSSING GUARDS, AND/OR HIGH PEDESTRIAN ACTIVITY DOCUMENTED BY A STUDY AND MUST BE ADA COMPLIANT.
2. REFER TO INDEX 711-001 FOR SPECIAL EMPHASIS CROSSWALK MARKING INSTALLATION GUIDELINES.
3. CROSSWALK WIDTHS: INTERSECTION CROSSWALK 6' FOR MINIMUM, 10' FOR STANDARD. MID-BLOCK CROSSWALK 10' FOR MINIMUM.
4. ALL CROSSWALK MARKINGS MUST BE WHITE.

NOTES

1. ALL PAVEMENT MARKINGS SHALL BE ALKYD BASED THERMOPLASTIC AND FULLY RETROREFLECTORIZED.
2. ALL PAVEMENT MARKINGS ON PAVER SYSTEMS SHALL BE 3M 380/381 SERIES TAPE OR EQUIVALENT AND APPLIED WITH PXO ADHESIVE AS PER MANUFACTURERS SPECIFICATIONS.
3. ALL PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", BCTED STANDARDS, AND FDOT DESIGN STANDARDS.
4. SEE FDOT INDEX NO 706-001 FOR PLACEMENT OF RPM's (FOR BULLNOSE RPM TREATMENT, SEE LEGEND NO. 1)
5. RPM's SHALL BE CLASS "B" OR EQUIVALENT, APPLIED WITH EPOXY OR BITUMINOUS ADHESIVE.
6. FDOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
7. FOR BIKE LANE DETAILS SEE FDOT INDEX NO. 711-002.
8. EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SAND BLASTING.
9. ALL STOP LINES TO BE 4' BEHIND CROSSWALK OR SIDEWALK.
10. PAVEMENT MARKING REFLECTIVITY SHALL BE UNIFORM ACROSS THE ENTIRE STRIPE AND SHALL HAVE A MINIMUM REFLECTIVITY READING OF 250 MILLICANDELAS FOR WHITE AND 175 MILLICANDELAS FOR YELLOW.
11. ALL PRODUCTS MUST BE ON FDOT'S APPROVED PRODUCTS LIST (APL).
12. RPM'S SHALL NOT BE INSTALLED ADJACENT TO BIKE LANES.
13. LONGITUDINAL CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL CROSS STREETS ON COUNTY ROADS THAT ARE FOUR LANES OR GREATER.

LEGEND

1. **YELLOW/YELLOW RPM DETAILS** — DIRECTION OF TRAVEL; CENTERLINE; 2 DIA. 1' MIN TO CROSSWALK; REFLECTIVE YELLOW; DIRECTION OF TRAVEL
2. **MEDIAN NOSE PAINT DETAILS** — RAISED SEPARATOR; GRASS MEDIAN; POINT OF CURB; REFLECTIVE YELLOW; RADIUS POINT
3. **PAINTED MEDIAN DETAILS** — DIRECTION OF TRAVEL; 6" SOLID DOUBLE YELLOW; 1'-0"; YELLOW PAINT; 18" SOLID YELLOW; YELLOW/YELLOW RPM's
4. **EDGE LINE DETAILS** — 6" SOLID WHITE OR YELLOW; EDGE OF PAVEMENT
5. **CHEVRON DETAILS - CROSSWALK AREAS AND IN FRONT OF CURB RAMPS** — DIRECTION OF TRAVEL; WHITE/RED RPM's; 18" SOLID WHITE; 6" SOLID WHITE; DIRECTION OF TRAVEL; SEE FDOT INDEX NO. 17346 FOR PLACING OF CHEVRONS
6. **STREET NAME BLADE DETAILS** — SEE BCTED STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS.
7. **TYPE IV SEPARATOR DETAILS** — 2'; REFLECTIVE YELLOW PAINT; 4'-6"; YELLOW/YELLOW RPM's; TYPE "F" CURB AND GUTTER; 6" SOLID YELLOW
8. **6'-10' SKIP DETAILS** — 6' - 10' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:
   - TRANSITIONS AT ALL LEFT AND RIGHT TURN LANES
9. **2'-4' SKIP DETAILS** — 2' - 4' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:
   - RADIUS SECTIONS (NOT BETWEEN DUAL LEFTS TURN MOVEMENT (90° RADIUS OR GREATER) AND ON RAMPS)
   - BUS BAY TRANSITIONS

STOP SIGN NOTE

WHERE SIDE ROADS INTERSECT A MULTI LANE STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 45 MPH OR HIGHER, THE MINIMUM SIZE OF THE STOP SIGNS FACING THE SIDE ROAD APPROACHES, EVEN IF THE SIDE ROAD ONLY HAS ONE APPROACH LANE, SHALL BE 36"X36".

WHERE SIDE ROADS INTERSECT A MULTI-LANE (INCLUDING TURN LANE) STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 40 MPH OR LOWER, THE MINIMUM SIZE OF THE STOP SIGN FACING THE SIDE ROAD APPROACHES SHALL BE 30"X30".

REVISIONS	
DATE	DESCRIPTION
11-24-2020	UPDATED NOTES
04-14-2021	UPDATED NOTES
05-06-2022	UPDATED NOTES

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

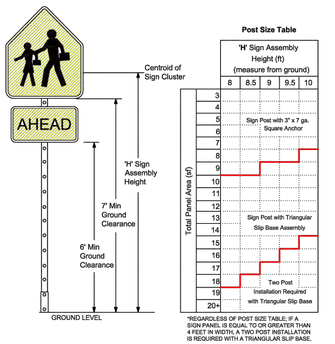
DESIGN BY: CARMELO CARATOZZOLO, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

PAVEMENT MARKINGS AND SIGNS DETAILS

SHEET NO. 1 OF 1

GUIDE TO USE THIS STANDARD:

1. Calculate the Total Panel Area and the centroid 'C' for an individual sign or a sign cluster.
2. Determine the height 'H' from the groundline for the individual sign or the cluster.
3. Consult the Post Size Table and find the intersection point.
4. Design the post and the foundation according to the required Post Size and Assembly Details.

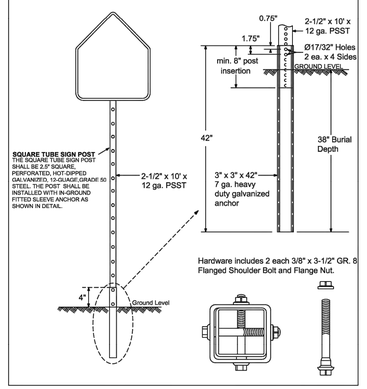


Post Size Table

Total Panel Area (sf)	'H' Sign Assembly Height (ft) (measure from ground) 8	8.5	9	9.5	10
3					
4					
5	Sign Post with 3" x 7 ga. Square Anchor				
6					
7					
8					
9					
10					
11					
12					
13	Sign Post with Triangular Slip Base Assembly				
14					
15					
16					
17					
18	Two Post Installation Required with Triangular Slip Base				
19					
20+					

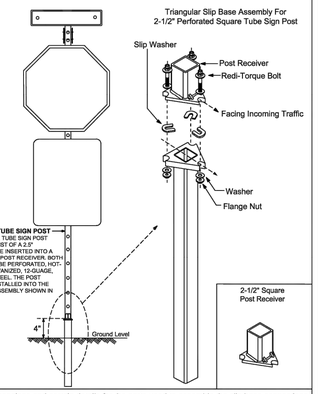
*REGARDLESS OF POST SIZE TABLE: IF A SIGN PANEL IS EQUAL TO OR GREATER THAN 4 FEET IN WIDTH, A TWO POST INSTALLATION IS REQUIRED WITH A TRIANGULAR SLIP BASE.

Sign Post with 3" x 7 ga. Square Anchor



SQUARE TUBE SIGN POST
THE SQUARE TUBE SIGN POST SHALL BE 2.5" SQUARE, PERFORATED, HOT-DIPPED GALVANIZED, 12-GUAGE,GRADE 50 STEEL. THE POST SHALL BE INSTALLED WITH IN-GROUND FITTED SLEEVE ANCHOR AS SHOWN IN DETAIL.

Sign Post with Triangular Slip Base



SQUARE TUBE SIGN POST
THE SQUARE TUBE SIGN POST SHALL CONSIST OF A 2.5" SQUARE TUBE INSERTED INTO A SQUARE TUBE POST RECEIVER. BOTH TUBES WILL BE PERFORATED, HOT-DIPPED GALVANIZED, 12-GUAGE, GRADE 50 STEEL. THE POST SHALL BE INSTALLED INTO THE SLIP BASE ASSEMBLY SHOWN IN DETAIL.

Note: Dimensions and certain details for the parts used to assemble the slip base connections are intentionally not shown. Slip base connections are patented manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are only shown on this plan to illustrate how the parts are assembled. The complete assembly must be designed to withstand 150 mph Base Wind Speed per 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th edition and interims.

REVISIONS	
DATE	DESCRIPTION
03-21-2017	UPDATED POST SIZE
11-24-2020	ADDED POST SIZE NOTE
02-05-2021	UPDATED POST BASE HEIGHT

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: YVES D'ANJOU, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: ANDREW SEBO, P.E., PTOE

GROUND SIGN ASSEMBLY DETAILS

SHEET NO. 1 OF 1

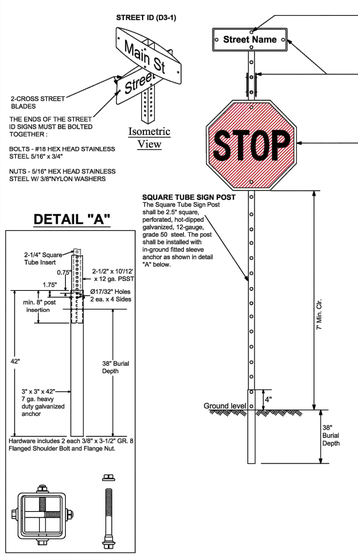
ENGINEER: DAVID E. CASTRO FELIU, P.E.
BCTED No: 05558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DATE: 07/09/2025
DESIGNED BY: DECF | SCALE: AS SHOWN
CHECKED BY: JJM | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

FOR SIGN ASSEMBLIES WITH MAXIMUM 8.75 SQUARE FOOT PANEL AREA

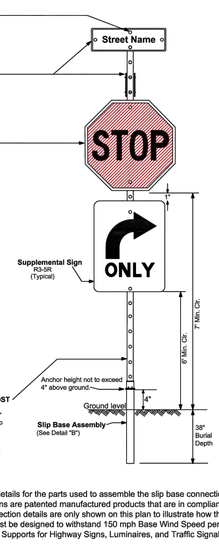
Typical Details



DETAIL "A"

FOR SIGN ASSEMBLIES WITH GREATER THAN 8.75 SQUARE FOOT PANEL AREA WITH SUPPLEMENTAL SIGN

Typical Details



STREET ID (D3-1) MATERIALS:

LETTERS
WHITE TYPE XI SHEETING
LETTERING OF STREET NAME SIGNS SHALL BE COMPOSED OF A COMBINATION OF LOWERCASE LETTERS WITH INITIAL UPPERCASE LETTERS

BORDER
BORDER WIDTHS WILL VARY BASED ON LETTER HEIGHTS

LETTER HEIGHTS - BORDER WIDTHS
4 INCH LETTER = 0.375 INCH BORDER WIDTH
6 INCH LETTER = 0.500 INCH BORDER WIDTH
8 INCH LETTER = 0.750 INCH BORDER WIDTH

GREEN BACKGROUND
GREEN TRANSLUCENT INK SILK-SCREENED CLEAR-COATED OR ELECTRO-CUT (EC) FILM OR EQUIVALENT

LETTER SIZES
SEE MUTCD TABLE 2B-3 (PG 163) FOR MINIMUM LETTER HEIGHTS LENGTH VARIES BY STREET NAME

HARDWARE
BOLTS - #18 HEX HEAD STAINLESS STEEL 5/16" x 3"
NUTS - 5/16" STAINLESS STEEL W/ NYLON WASHERS.

REGULATORY SIGN
WHEN NO STREET ID IS PRESENT THE STOP SIGN SHALL BE MOUNTED FLUSH TO THE TOP OF THE POST WHILE MAINTAINING 7 FEET MIN. CLEARANCE BETWEEN BOTTOM OF SIGN AND GROUND LEVEL. ANY SIGN INSTALLED BACK TO BACK WITH THE STOP SIGN SHALL BE SMALLER THAN THE STOP SIGN.

STOP, DO NOT ENTER OR YIELD
WHITE TYPE XI SHEETING
PRESSURE-SENSITIVE RED TRANSLUCENT INK SILK-SCREENED CLEAR-COATED OR ELECTRO-CUT (EC) FILM OR EQUIVALENT.

HARDWARE
FRONT: #18 HEX HEAD STAINLESS STEEL 5/16" x 3" BOLT W/ 3/8" NYLON WASHER
BACK: 5/16" HEX HEAD STAINLESS STEEL NUT W/ 3/8" STAINLESS STEEL WASHER.

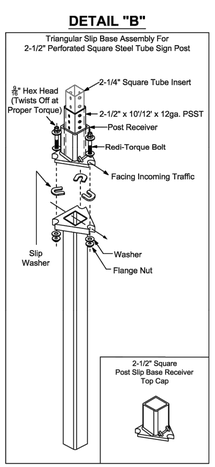
NOTES: 1. ALL TYPE XI SHEETING UTILIZED MUST BE ON THE FDOT APL LIST.

2. SEE BCTED TECHNICAL POLICY MEMO #TPM - 16-001 - SPECIFICATIONS FOR RETROFLECTIVE TRAFFIC SIGN MATERIALS.

SQUARE TUBE SIGN POST
The Square Tube Sign Post shall consist of a 6 foot x 2.25" square tube insert inserted into a 2.5" square post receiver. Both tubes will be perforated, hot-dipped galvanized, 12-gauge, grade 50 steel. The post shall be installed into the slip base assembly shown in detail "B".

DETAIL "B"

Triangular Slip Base Assembly For 2-1/2" Perforated Square Steel Tube Sign Post



Notes:
1. Dimensions and certain details for the parts used to assemble the slip base connections are intentionally not shown. Slip base connections are patented manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are only shown on this plan to illustrate how the parts are assembled. The complete assembly must be designed to withstand 150 mph Base Wind Speed per 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th edition and interims.
2. For standard ground sign installation, see detail entitled " Ground Sign Assembly Details".

REVISIONS	
DATE	DESCRIPTION
02-26-2020	ADDED ISOMETRIC VIEW
02-05-2021	UPDATED POST BASE HEIGHT
06-22-2023	UPDATED SIGN POST NOTES

BROWARD COUNTY FLORIDA

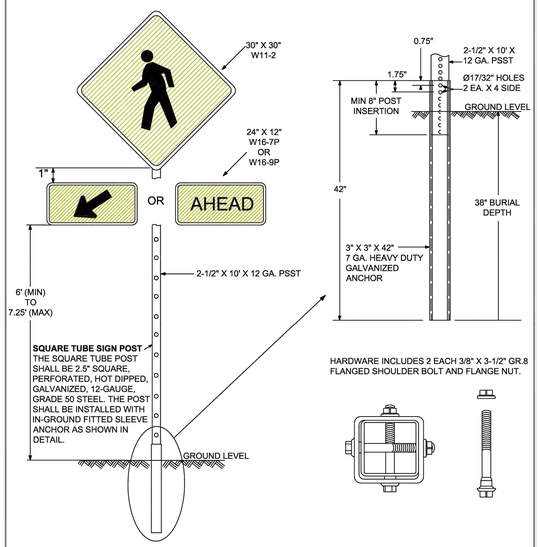
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: CARMELO CARATOZZOLO, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS

SHEET NO. 1 OF 1

W11-2 (30"x 30") & SUPPLEMENTAL (24"x 12") SIGN ASSEMBLY



1. SCHOOL ZONE AND PEDESTRIAN SIGNS SHALL BE COMPRISED OF REFLECTIVE FLUORESCENT YELLOW-GREEN SHEETING. (SEE BCTED TECHNICAL POLICY MEMO #TPM-16-001 ON BCTED WEBSITE)
2. NOT FOR USE WITH RECTANGULAR RAPID FLASHING BEACONS

REVISION: 11-15-18	W11-2 (30"x 30") & SUPPLEMENTAL (24"x 12") SIGN ASSEMBLY
	SCALE: NTS
	DESIGN BY: YVES D'ANJOU, P.E.
	DRAWN BY: STEPHON RAMOUTAR
SHEET 1 OF 1	CHECKED BY: ANDREW SEBO, P.E., PTOE

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS			
NO.	DATE	BY	CHK'D	DESCRIPTION

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
STANDARD DETAILS - SHEET 17

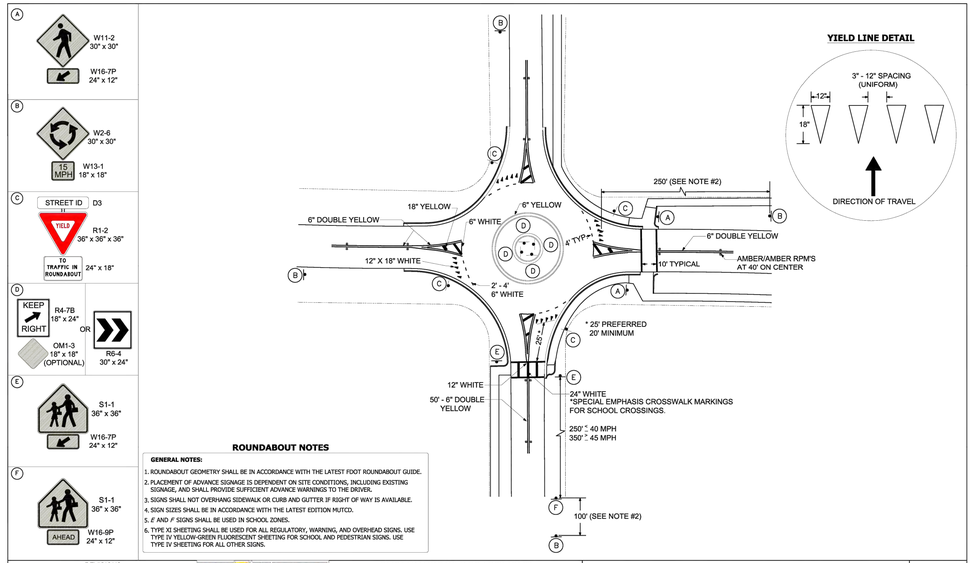
ISSUED FOR BID

SHEET NO. DT-17 | SHT # 145

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

DRAWING FILE NO. 4-144-88



ROUNDABOUT NOTES

GENERAL NOTES:

1. ROUNDABOUT GEOMETRY SHALL BE IN ACCORDANCE WITH THE LATEST FDOT ROUNDABOUT GUIDE.
2. PLACEMENT OF ADVANCE SIGNAGE IS DEPENDENT ON SITE CONDITIONS, INCLUDING EXISTING SIGNAGE, AND SHALL PROVIDE SUFFICIENT ADVANCE WARNINGS TO THE DRIVER.
3. SIGNS SHALL NOT OVERHANG SIDEWALK OR CURB AND GUTTER IF RIGHT OF WAY IS AVAILABLE.
4. SIGN SIZES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION MUTCD.
5. *E AND F* SIGNS SHALL BE USED IN SCHOOL ZONES.
6. TYPE XI SHEETING SHALL BE USED FOR ALL REGULATORY, WARNING, AND OVERHEAD SIGNS. USE TYPE IV YELLOW-GREEN FLUORESCENT SHEETING FOR SCHOOL AND PEDESTRIAN SIGNS. USE TYPE IV SHEETING FOR ALL OTHER SIGNS.

REVISIONS	
DATE	DESCRIPTION
01-18-2017	Minor Changes
04-12-2018	Added Sign
04-09-2019	Updated Sign Requirements

BROWARD COUNTY FLORIDA

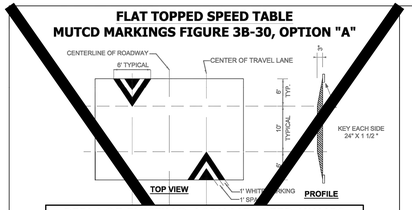
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: LEI CAI, P.E. | SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

PAVEMENT MARKINGS & SIGNING DETAILS FOR ROUNDABOUTS –LOCAL STREETS

SHEET NO. 1 OF 1

FLAT TOPPED SPEED TABLE
MUTCD MARKINGS FIGURE 3B-30, OPTION "A"



REPLACE EXISTING ASPHALT SPEED HUMPS WITH SPEED CUSHIONS BY TRAFFICLOGIX, OR APPROVED EQUAL. SPEED CUSHIONS SHALL BE 21' x 6' x 3" AND SHALL HAVE INTERLOCKING RUBBER PANELS. PAVEMENT MARKINGS SHALL MEET MUTCD REQUIREMENTS AND REFLECTIVITY REQUIREMENTS. INSTALLATION SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL COORDINATE WITH AND OBTAIN APPROVAL FROM THE ENGINEER AND/OR CITY REGARDING FINAL PRODUCT SELECTION AND PAVEMENT MARKING PREFERENCES PRIOR TO PROCURING THE MATERIAL.

NOTES:

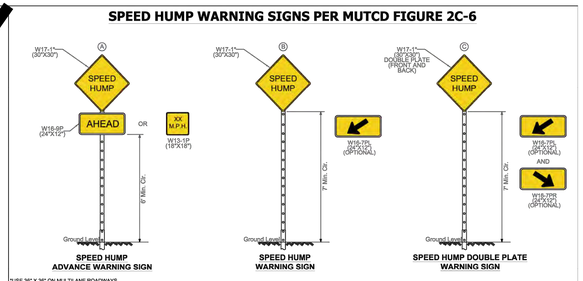
THE FOLL
BROWARC

1. THE S
TWEN
a. HEIG
b. TEN
c. SIX (
d. EIGH
2. KEY C
TO SF
3. KEY C
OF CH
4. PAVE
(MUTC
a. FOR
SPAC
TRA
b. SIX (
EDG

OTHER IN

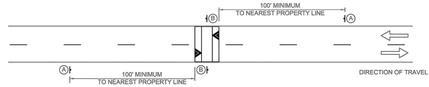
1. ALL S
2. TAC
3. APPROVED MAINTENANCE OF TRAFFIC PLAN SHALL BE ESTABLISHED FOR EACH SPEED HUMP INSTALLATION.
4. INSTALLATION SHALL BE IN COMPLIANCE WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2023-2024.

SPEED HUMP WARNING SIGNS PER MUTCD FIGURE 2C-6

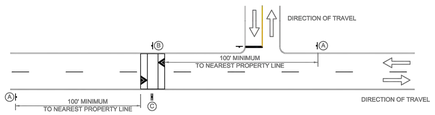


*USE 36" X 36" ON MULTILANE ROADWAYS

STANDARD



INTERSECTION



REVISIONS	
DATE	DESCRIPTION

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: LIANA BORREGO CARMONA, P.E. | SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: LEI CAI, P.E., PTOE

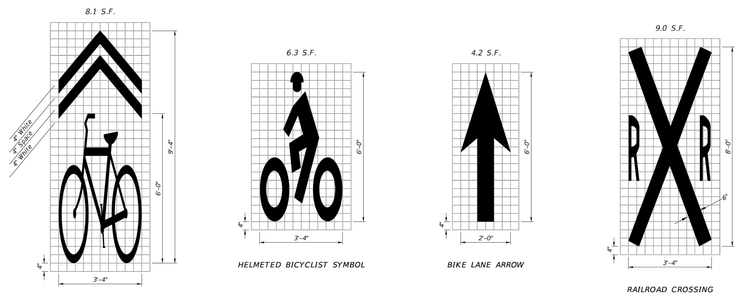
SPEED HUMP DETAILS AND SPECIFICATIONS

SHEET NO. 1 OF 1

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 85558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DATE: 07/09/2025
DESIGNED BY: SCALE: AS SHOWN DECF
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301



SHARED LANE MARKING (SLM)

HELMETED BICYCLIST SYMBOL

BIKE LANE ARROW

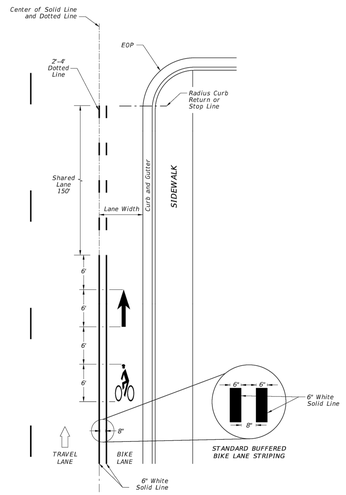
RAILROAD CROSSING

NOTES:

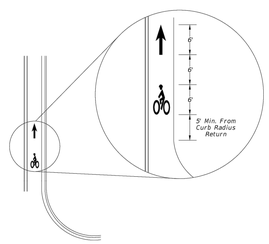
1. *All bicycle markings and pavement messages shall be White.*
2. *All bicycle markings shall be preformed thermoplastic.*
3. *All grids are 4" x 4".*

STANDARD PAVEMENT MARKING MESSAGE LAYOUTS

LAST REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	BICYCLE MARKINGS	INDEX	SHEET
11/01/17				711-002	1 of 2



APPROACH TO INTERSECTIONS DETAILS



FAR SIDE OF INTERSECTION DETAIL

BUFFERED BIKE LANES

LAST REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	BICYCLE MARKINGS	INDEX	SHEET
11/01/17				711-002	2 of 2

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS			
NO.	DATE	BY (CHK'D)	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 18

SHEET NO. DT-18 | SHT # 146

TOTAL: 233

CAD FILE: 12082–MULTI–DETL

DRAWING FILE NO. 4–144–88

12082-MULTI-DETL Wednesday, July 09, 2025

GENERAL NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES.
2. REFER TO SPECIFICATION SECTION 01001 AND 01520 FOR DETAILED REQUIREMENTS FOR SEQUENCE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.
3. SITE INFORMATION HAS BEEN PROVIDED BY SITE SURVEY PREPARED BY XXXX. SURVEYING, LLC DATED FEBRUARY 2013.
4. HORIZONTAL CONTROL IS REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
5. RECORD DRAWINGS USED FOR EXISTING FEATURES: XXXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.
6. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
7. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
8. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.
9. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED. THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
10. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT PHONE NUMBER 811 OR 1-800-432-4770 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
11. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN OR AROUND EXISTING CITY-OWNED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION WITHIN TEN FEET OF A CITY-OWNED UTILITY SO THAT A CITY REPRESENTATIVE MAY BE PRESENT.
12. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
13. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 1 | DETAIL NO. GNRL 001 | REVISED 2017/07/19

12082-MULTI-DETL Wednesday, July 09, 2025

14. DURING EXCAVATION AND PLACEMENT OF UTILITIES THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHEET PILING, SHORING AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO COMPLY WITH THESE REGULATIONS.
15. GROUNDWATER FROM ALL DEWATERING OPERATIONS SHALL BE DISCHARGED TO AN ENVIRONMENTALLY ACCEPTABLE LOCATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.
16. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.
17. FOR REFERENCE MONUMENTS, SEE DRAWING (EX. CONDITIONS DWG # THAT SHOWS MONUMENTS).
18. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
19. THE UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY OR APPROVED EASEMENT. THE CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
20. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
21. ALL LOOP DETECTORS, COMMUNICATION CABLES AND CONDUITS, IF DAMAGED BY THE CONTRACTOR'S ACTIVITIES, SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH BCTED AND FDOT REQUIREMENTS.
22. PIPING, FITTINGS, AND APPURTENANCES FOR DUCTILE IRON PIPE SHALL BE RESTRAINED JOINT WHERE SHOWN ON THE PLANS.
23. RESILIENT SEATED GATE VALVES WITH BEVEL TYPE GEAR SHALL BE INSTALLED IN HORIZONTAL ORIENTATION WHEN LESS THAN 7-FEET OF COVER FROM TOP OF PIPE IS PRESENT.
24. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY FIRE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING PERMISSION AND A CONSTRUCTION METER FROM THE CITY OF FORT LAUDERDALE.
25. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING EXCAVATION. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN FOR WATER SERVICE AND WASTEWATER SERVICE DISRUPTION FOR APPROVAL 7 (SEVEN) CALENDAR DAYS PRIOR TO THE ANTICIPATED DISRUPTION. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS 48 HOURS IN ADVANCE OF ANY WORK ON THEIR SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
26. THE CONTRACTOR MUST INFORM THE CITY AT LEAST 48-HOURS IN ADVANCE OF CONSTRUCTION, IN WRITING IF ANY CONFLICT IS DISCOVERED DURING POT HOLE OPERATIONS FOR CLARIFICATION BY THE CITY.
27. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UTILITIES DEPARTMENT OF THE CITY OF FORT LAUDERDALE AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO COORDINATE ANY ACTIVITY TO BE PERFORMED BY THE CITY'S UTILITIES DEPARTMENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 2 | DETAIL NO. GNRL 001 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

28. CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE EXISTING RIGHTS-OF-WAY.
29. ALL WORK WITHIN STATE DEPARTMENT OF TRANSPORTATION (FDOT) RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH FDOT SPECIFICATIONS AND PERMIT REQUIREMENTS.
30. ALL WORK WITHIN BROWARD COUNTY RIGHT-OF-WAYS SHALL BE IN CONFORMANCE WITH THE BROWARD COUNTY MINIMUM STANDARDS AND/OR REQUIREMENTS.
31. CONTRACTOR SHALL COMPLY WITH ALL LOCAL CITY, COUNTY AND STATE REGULATIONS PERTAINING TO THE CLOSING OF PUBLIC STREETS FOR USE OF TRAFFIC DURING CONSTRUCTION.
32. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC (MOT) PLANS TO FDOT, CITY OF FORT LAUDERDALE, BROWARD COUNTY AS REQUIRED FOR WORK TO BE DONE WITHIN THEIR R/W PRIOR TO COMMENCEMENT OF WORK. SPECFIC AGENCY MOT REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
33. CONTRACTOR SHALL SUBMIT MOT PLANS FOR APPROVAL BY THE CITY WHEN WORKING WITHIN THE PUBLIC RIGHT-OF-WAY.
34. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND SHALL NOT BE CONSIDERED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.
35. THE GENERAL INTENT IS TO PROVIDE SEWER SERVICE LATERALS FOR EACH PROPERTY. ALL LATERAL LOCATIONS SHALL BE FIELD ADJUSTED.
36. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
37. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.
38. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, DRIVEWAYS, PIPES, RESIDENTIAL AND COMMERCIAL SPRINKLER LINES, CONDUIT, CABLES, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
39. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.
40. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
41. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.
42. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE BOXES, MANHOLES, HAND HOLES, PULL BOXES, INLETS AND SIMILAR STRUCTURES IN CONSTRUCTION AREA TO BE OVERLAYED WITH ASPHALT.
43. EXISTING TRAFFIC SIGNS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS; COST SHALL BE INCIDENTAL.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 3 | DETAIL NO. GNRL 001 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

44. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL PRE-CONSTRUCTION CONDITION OR AS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
45. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS, AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH FDOT STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
46. THE CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR CITY APPROVAL PRIOR TO ORDERING MATERIALS AND INSTALLATION.
47. EXISTING GAS MAINS SHALL BE IDENTIFIED BY THE APPROPRIATE UTILITY, PRIOR TO START OF CONSTRUCTION.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | GENERAL NOTES SHEET 4 | DETAIL NO. GNRL 001 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

TRAFFIC CONTROL PLAN NOTES:

1. THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-660. MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGLER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
2. THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE ENGINEER.
3. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
4. A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.
5. EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.
6. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.
8. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.
9. TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING DEPARTMENT.
10. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATS CERTIFIED.
11. THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH HOUR.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | TRAFFIC CONTROL PLAN NOTES | DETAIL NO. GNRL 002 | REVISED 2017/07/13

GNRL-004 - FDOT SCHOOL MOT NOTES Tuesday, September 25, 2018

FDOT SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE FOLLOWING AREAS WITHIN THE PROJECT LIMITS ARE DESIGNATED AS SAFE ROUTES TO SCHOOL BY THE BROWARD COUNTY SCHOOL BOARD (AREAS TO BE PROVIDED BY BCTED):
   A. DATA TO BE SUPPLIED BY BCTED
   B. DATA TO BE SUPPLIED BY BCTED
2. WITHIN THESE AREAS THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING REQUIREMENTS:
3. PROVIDE AT LEAST ONE SAFE, WALKABLE PATH THROUGHOUT THE CONSTRUCTION ZONE. IF THE EXISTING WALKING SURFACES CANNOT BE MAINTAINED, THEN A TEMPORARY PATH, A MINIMUM OF 4 FOOT WIDE, SHALL BE PROVIDED. THE SAFE WALK ROUTE SHALL ALSO BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS. THE CONTRACTOR SHALL ALSO INSTALL OR MODIFY ANY ADDITIONAL PAVEMENT MARKINGS, SIGNAGE OR PEDESTRIAN SIGNALS AS NEEDED IN CONJUNCTION WITH THE TEMPORARY PATH.
4. ON DAYS THAT SCHOOL IS IN SESSION, THE CONTRACTOR'S WORK SCHEDULE WITHIN THE SCHOOL ZONE MAY BE REDUCED BASEDON ACTUAL WORK ACTIVITIES IN THE SCHOOL ZONE. SEE MAINTENANCE OF TRAFFIC PLANS FOR DETAILS ON THE WORK ZONE RESTRICTIONS, IF WARRANTED. ANY CHANGES IN THE MAINTENANCE OF TRAFFIC WORK SCHEDULES WITHIN SCHOOL ZONES SHOULD BEDISCUSSED WITH THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING, (954) 847-2600.
5. ALL WORK REQUIRED AT DESIGNATED SCHOOL CROSSINGS AND PEDESTRIAN CROSSINGS SHALL BE RESTORED TO A SAFE WALKABLE PATH DURING ARRIVAL AND DISMISSAL TIMES.
6. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-600, TO DISCUSS ALL NECESSARY SAFETY MEASURES.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES.

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

8. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRECONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | FDOT SCHOOL MOT NOTES | DETAIL NO. GNRL 004 | REVISED 2018/09/21

GNRL-005 - BROWARD COUNTY SCHOOL MOT NOTES Tuesday, September 25, 2018

BROWARD COUNTY SCHOOL MAINTENANCE OF TRAFFIC NOTES:

1. THE MAINTENANCE OF TRAFFIC PLAN, PROVIDED BY THE CONTRACTOR, SHALL INCLUDE PROVISIONS FOR PEDESTRIAN AND/OR SCHOOL STUDENT TRAFFIC AS WELL AS VEHICULAR TRAFFIC. THE FOLLOWING ARE MINIMUM REQUIREMENTS:
2. THE SAFE WALK ROUTE FOR ALL SCHOOL STUDENTS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING STUDENT ARRIVAL AND DISMISSAL TIMES. IF THE CURRENT WALKING SURFACE CANNOT BE MAINTAINED, THEN A TEMPORARY WALKABLE SURFACE SHALL BE CREATED. THE SAFE WALK ROUTE SHALL BE SEPARATED FROM THE CONSTRUCTION ACTIVITY DURING THE ENTIRE LENGTH OF THE PROJECT ENCOMPASSING THE ENTIRE WALK ROUTE WITH PROPER PEDESTRIAN OPENINGS AT DESIGNATED CROSSINGS IN COMPLIANCE WITH FDOT DESIGN STANDARDS INDEX NO. 600 AS WELL AS MEETING ALL ADA REQUIREMENTS.
3. ALL CONSTRUCTION EQUIPMENT ACTIVITY AROUND ANY DESIGNATED CROSSWALK SHALL CEASE TO OPERATE DURING THE STUDENT ARRIVAL AND DISMISSAL TIMES. ALL CONSTRUCTION EQUIPMENT ACTIVITY ADJACENT TO A DESIGNATED WALK ROUTE SHALL CEASE OPERATING UNLESS SATISFACTORILY BARRICADED FROM THE WALK ROUTE.
4. IN THE CASE THAT A DESIGNATED CROSSING OR ANY PORTION OF THE DESIGNATED WALK ROUTE CANNOT BE MAINTAINED, THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600. A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO CLOSING THAT ROUTE IN ORDER TO ESTABLISH AN ALTERNATE CROSSING/ROUTE.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ANY NECESSARY PAVEMENT, ROAD ROCK, PAVEMENT MARKINGS AND SIGNAGE AND/OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN EXISTING OR ALTERNATE WALK ROUTE THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE STATE CERTIFIED SCHOOL CROSSING GUARDS OR OFF DUTY POLICE OFFICERS TO CROSS STUDENTS AT ALL LOCATIONS OTHER THAN THOSE PREVIOUSLY DESIGNATED. THE CONTRACTOR MAY USE FLAGMEN, BUT ONLY IF THEY ARE STATE CERTIFIED AS A SCHOOL CROSSING GUARD.
7. THIRTY (30) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE SPECIAL PROJECTS COORDINATOR AT BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600 OR AT BROWARD@TRAFFIC.ORG TO DISCUSS ALL NECESSARY SAFETY MEASURES.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE FOLLOWING BROWARD COUNTY SCHOOL BOARD PUPIL TRANSPORTATION DEPARTMENT PERSONNEL IF CONSTRUCTION WILL IMPACT ANY BUS ROUTES:

NAME	SECTION	PHONE	EMAIL
RUTH MASTERS	ROUTING	(754) 321-4400 EXT. # 2309	RUTH.MASTERS@BROWARDSCHOOLS.COM
VINCENT HARRELL	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4472	VINCENT.HARRELL@BROWARDSCHOOLS.COM
MARY TOCHTERMANN	STUDENT TRANSPORTATION & FLEET SERVICE	(754) 321-4400 EXT. # 2006	MARY.TOCHTERMANN@BROWARDSCHOOLS.COM

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | BROWARD COUNTY SCHOOL MOT NOTES SHEET 1 | DETAIL NO. GNRL 005 | REVISED 2018/09/21

1

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE: No. 85558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION
1	07/02/2025	JLS	DECF	ADDENDUM #2

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 1

SHEET NO. DT-01 | SHT # 129
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

9. UPON COORDINATION WITH THE AFOREMENTIONED PERSONNEL, AND IF DEEMED NECESSARY, A PRE-CONSTRUCTION MEETING WILL BE HELD TO DETERMINE ALL BUS ROUTES AND TO MAKE ANY NECESSARY ARRANGEMENTS FOR REROUTING. THE SPECIAL PROJECTS COORDINATOR FROM THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION, (954) 847-2600, WILL BE NOTIFIED AND MAY ATTEND THE PRE-CONSTRUCTION MEETING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN APPROVED MAINTENANCE OF TRAFFIC PLAN (MOT), SPECIFYING THE ABOVE SCHOOL/PEDESTRIAN CONDITIONS, THROUGH THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION OR THE LOCAL MUNICIPALITY, DEPENDING ON THE ROADWAY JURISDICTION. THE CONDITIONS OUTLINED IN THE MOT ARE FULLY EFFECTIVE AS PART OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL WORK ASSOCIATED WITH THE PROJECT IS IN COMPLIANCE WITH ALL THE REQUIREMENTS OF THE APPROVED MOT.

11. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO SPEED LIMIT SIGNS INSTALLED WITHIN THE DESIGNATED REDUCED SPEED SCHOOL ZONE AT ANY TIME THROUGHOUT THE PROJECT.

BROWARD COUNTY COMMUNICATION NOTES:

1. THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED). ALL SYSTEM COMMUNICATIONS EQUIPMENT, CABLING AND RELATED MATERIAL SHALL COMPLY WITH BROWARD COUNTY'S LATEST EDITION OF THE MINIMUM STANDARDS AS EXPRESSED IN THE "STANDARDS AND SPECIFICATIONS - COMMUNICATION INFRASTRUCTURE" DOCUMENT. PLEASE REFER TO (BCTED'S) COMMUNICATIONS POLICIES AND PROCEDURES FOR ADDITIONAL INFORMATION. BROWARD COUNTY TRAFFIC ENGINEERING DIVISION WILL NOT ACCEPT ANY PROJECTS THAT DO NOT MEET THESE STANDARDS AND SPECIFICATIONS. IF FIBER OPTIC PULL BOXES ALREADY EXIST AT AN INTERSECTION, NO ADDITIONAL FIBER OPTIC PULL BOXES WILL NEED TO BE INSTALLED. FOR A COPY OF THESE STANDARDS REFER TO THE BROWARD COUNTY WEB SITE AT WWW.BROWARD.ORG/TRAFFIC UNDER PUBLICATIONS.

2. IF THERE ARE COPPER INTERCONNECT CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

3. IF THERE ARE FIBER OPTIC CABLE/S WITHIN YOUR PROJECT LIMITS OR WITHIN 1,500 FEET OF YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

4. IF THERE ARE CELLULAR COMMUNICATIONS WITHIN YOUR PROJECT LIMITS, CONTACT THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG OR 954-847-2745.

5. ALL BCTED COMMUNICATIONS CABLES/CONDUIT SHALL BE LOCATED A MINIMUM OF 48 HOURS IN ADVANCE.

BROWARD COUNTY TRAFFIC ENGINEERING DIVISION
PROCEDURE FOR NOTIFICATION OF COMMUNICATION DISRUPTION

COPPER INTERCONNECT CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE TRAFFIC SIGNAL TECHNICIAN III AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

FIBER OPTIC CABLE NOTIFICATION CONTACT PERSON:

WHEN COMMUNICATIONS TO AN INTERSECTION MUST BE DISRUPTED BY A CONTRACTOR TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE TWO DAY ADVANCE NOTICE IN WRITING TO THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION. THIS NOTIFICATION SHALL BE CONVEYED VIA ELECTRONIC MAIL (EMAIL) TO THE COMMUNICATIONS MANAGER AT TECOMMUNICATIONS@BROWARD.ORG. NOTIFICATION SHALL INCLUDE CONTACT PERSON, TELEPHONE NUMBER, PURPOSE, LOCATION AND DURATION. THE DISRUPTION SHALL LAST FOR NO MORE THAN 3 CONSECUTIVE BUSINESS DAYS. WHERE POSSIBLE, THE DISRUPTION SHALL BE DURING OFF PEAK HOURS BEGINNING AT 9:00 AM AND ENDING AT 3:00 PM.

UTILITY OWNER CONTACT PERSON:

INTERCONNECT COMMUNICATIONS CABLES - (ROBERT BLOUNT) BROWARD COUNTY TRAFFIC ENGINEERING DIVISION (BCTED) 954-847-2745

12082-MULTI-DETL Tuesday, September 24, 2019

SCHOOL ZONE INSTALLATION REQUIREMENTS WITHIN BROWARD COUNTY:

1. THE CONTRACTOR SHALL BE GOVERNED BY THE LATEST EDITIONS OF THE FOLLOWING MANUALS:

   A. THE FDOT DESIGN STANDARDS

   B. THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

   C. THE BROWARD COUNTY MINIMUM STANDARDS APPLICABLE TO PUBLIC RIGHTS-OF-WAY

2. FOR THE LATEST EDITION OF SCHOOL FLASHER DETAIL SHEETS AND MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIANS NOTES, SEE THE BROWARD COUNTY TRAFFIC ENGINEERING DIVISION'S WEB SITE AT:
   HTTP://WWW.BROWARD.ORG/TRAFFIC/PAGES/PUBLICATIONS.ASPX

3. THE "MAINTENANCE OF TRAFFIC SCHOOL/PEDESTRIAN" NOTES SHALL APPEAR ON THE PLAN AS INDICATED. DEPENDING ON THE JURISDICTION OF THE ROADWAY THE CONTRACTOR WILL UTILIZE EITHER THE BCTED OR FDOT VERSION, WHICH WILL BE DETERMINED BY THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED.

4. SCHOOL FLASHER PLANS ARE VALID FOR EIGHTEEN (18) MONTHS FROM DATE OF APPROVAL. AFTER THAT DATE, PLANS SHALL BE RESUBMITTED FOR APPROVAL.

5. NO SCHOOL FLASHER AND/OR ASSOCIATED EQUIPMENT SHALL BE PLACED OUTSIDE OF THE PUBLIC RIGHT-OF-WAY OR ON PRIVATE PROPERTY WITHOUT THE PRIOR ACQUISITION OF THE NECESSARY TRAFFIC ENGINEERING EASEMENTS BY THE CONSULTANT/CONTRACTOR. THESE EASEMENTS SHALL BE LARGE ENOUGH TO ALLOW ACCESS TO THE TRAFFIC ENGINEERING EQUIPMENT BY TECHNICIANS AND BY LARGER VEHICLES WHICH MAY REQUIRE ACCESS TO THE EQUIPMENT. THE SIZE AND LOCATION OF THE EASEMENTS WILL BE DETERMINED ON A CASE-BY-CASE BASIS. THE EASEMENTS SHALL BE RECORDED DOCUMENTS AND A COPY OF THE FULLY EXECUTED RECORDED EASEMENT SHALL BE PROVIDED TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR PRIOR TO INSTALLATION.

6. PRIOR TO ANY EQUIPMENT ORDER, THE CONTRACTOR SHALL SUBMIT TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED FOR APPROVAL, ALL OF THE EQUIPMENT SPECIFICATIONS (I.E. SHOP DRAWINGS) FOR ALL MATERIALS PROPOSED FOR THE PROJECT. SEE SECTION 603 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR SUBMITTAL DATA REQUIREMENTS. INCLUDED IN THE SUBMITTAL SHALL BE SHOP DRAWINGS FOR GROUND MOUNT AND/OR MAST ARM DETAILS, AS APPLICABLE.

7. IF ELECTRICAL SERVICE IS REQUIRED, THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO BCTED, SYSTEMS SECTION - DESIGN ENGINEER, TO PROVIDE BILLING AUTHORIZATION TO FPL. THIS IS REQUIRED BEFORE ELECTRICAL SERVICE CAN BE OBTAINED. THE REQUEST SHALL INCLUDE A STATEMENT CERTIFYING THAT THIS ELECTRICAL INSTALLATION MEETS OR EXCEEDS ALL APPLICABLE REQUIREMENTS OF ALL APPLICABLE CODES AND IS NOW READY FOR CONNECTION TO FPL FACILITIES. ALSO INCLUDE THE DATE SERVICE IS REQUIRED BY IN THE REQUEST.

8. THE CONTRACTOR SHALL MAKE WRITTEN REQUEST TO THE SCHOOL SAFETY PROGRAM SPECIAL PROJECTS COORDINATOR AT BCTED EITHER BY FAX; 954-847-2700 OR E-MAIL; TRAFFIC@BROWARD.ORG TO SCHEDULE AN INSPECTION OF THE COMPLETE INSTALLATION, INCLUDING THE INTERIM SIGNING AND PAVEMENT MARKING PLAN. ACTIVATION OF THE FLASHERS SHALL ONLY BE PERMITTED AFTER SAID INSPECTION.

12082-MULTI-DETL Tuesday, September 24, 2019

9. THE CONTRACTOR SHALL PROVIDE SIX (6) SETS OF MARKED UP (AS-BUILT) CONSTRUCTION PLANS TO THE ENGINEER AND BCTED AS DEFINED IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 611, SEVEN (7) DAYS PRIOR TO SCHOOL FLASHER CONDITIONAL ACCEPTANCE INSPECTION BY BCTED. THE CONTRACTOR SHALL ALSO PROVIDE TWO SETS OF AS-BUILT PLANS TO BCTED SIGNAL TECHNICIAN AT THE TIME OF INSPECTION. TWO COPIES OF CABINET PRINTS, TWO SETS OF CABINET KEYS AND PAGER/TIME SWITCH OPERATION MANUALS FOR EACH LOCATION SHALL ALSO BE TURNED OVER AT THIS TIME.

10. THE CONTRACTOR IS ADVISED THAT THE PRESENCE OF OVERHEAD ELECTRICAL CONDUCTORS IN CLOSE PROXIMITY TO THE LOCATIONS OF PROPOSED SCHOOL FLASHERS MAY LIMIT THE TYPE OF EQUIPMENT THAT CAN BE USED IN CONSTRUCTION OF THE SCHOOL FLASHER. THE CONTRACTOR SHALL COORDINATE WITH FPL TO DEACTIVATE LINES IF NECESSARY.

11. ALL SIGN ASSEMBLIES SHOWN OR NOTED ON THE PLAN SHEETS FOR REMOVAL SHALL BE DELIVERED TO THE BCTED OPERATIONS BUILDING, 2300 WEST COMMERCIAL BLVD., FORT LAUDERDALE. EXISTING FLASHERS ARE NOT TO BE REMOVED UNTIL AFTER THE NEW UNIT HAS PASSED ITS FINAL INSPECTION.

12. SIGN LOCATIONS MAY BE VARIED IN THE FIELD AS NECESSARY IN ORDER TO AVOID CONFLICTS WITH UNFORESEEN OBSTACLES, DRIVEWAYS, ETC. ANY SIGN LOCATION VARIATIONS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHOWN ON THE AS BUILTS.

12082-MULTI-DETL Wednesday, July 09, 2025

DRAINAGE NOTES:

1. DRAINAGE PIPE SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) OR REINFORCED CONCRETE (RCP). THE USE OF RCP PIPE FOR PUBLIC ROADWAY CROSSINGS IS PREFERRED.

2. CATCH BASINS, INLETS AND JUNCTION BOXES SHALL NOT BE INSTALLED IN DRIVEWAYS.

3. PRIOR TO BACKFILLING EXFILTRATION TRENCHES, DRAINAGE INLETS OR MANHOLES, THE CONTRACTOR SHALL NOTIFY THE ENGINEERING INSPECTOR FOR AN INSPECTION.

4. DRAINAGE STRUCTURES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY CITY.

5. ALL PIPES SHALL BE LAID IN DRY TRENCH. ALL MUCK OR UNSUITABLE MATERIALS IN TRENCHES, INLETS OR MANHOLES SHALL BE REMOVED AND BACKFILLED WITH SELECTED MATERIAL APPROVED BY THE ENGINEER.

6. MINIMUM COVER FOR HDPE PIPE UNDER ASPHALT SHALL BE 24-INCH COMPACTED LIMEROCK BASE. MINIMUM COVER FOR PIPE UNDER GRASS SHALL BE 18" COMPACTED SUBGRADE.

7. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.

8. MAINTENANCE ACCESS SHALL BE PROVIDED ON BOTH SIDES OF EXFILTRATION TRENCHES IN THE FORM OF MANHOLES OR CATCH BASINS. THE MAXIMUM DISTANCE BETWEEN STORM STRUCTURES SHALL NOT EXCEED TREE HUNDRED (300) FEET).

9. ALL EXFILTRATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION DOCUMENT TITLED "DRAINAGE DESIGN GUIDE", LATEST EDITION.

10. GEOTEXTILE MATERIALS USED IN THE CONSTRUCTION OF EXFILTRATION TRENCHES SHALL BE IN ACCORDANCE WITH THE CRITERIA OF FLORIDA DEPARTMENT OF TRANSPORTATION'S DESIGN STANDARDS LATEST EDITION AND CITY OF FORT LAUDERDALE'S SPECIFICATIONS.

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION NOTES:

GENERAL DEMOLITION SPECIFICATIONS:

1. THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.

2. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES AND OTHER FEATURES AFFECTING THE WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MIGHT IMPACT THE WORK.

3. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.

4. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.

5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION, AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.

6. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED.

7. THE FOLLOWING LIST OF STRUCTURES REQUIRING DEMOLITION IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE DRAWINGS INDICATE THE SCOPE OF DEMOLITION WHERE DEMOLITION IS REQUIRED.

   7.1. DEMOLITION AND REMOVAL OF A 5' MIN.± STRIP OF EXISTING ON-SITE ASPHALT, CONCRETE AND CURBING AROUND THE PERIMETER OF THE EXISTING STRUCTURES AND UTILITIES BEING DEMOLISHED.

   7.2. REMOVAL OF EXISTING ON-SITE ABOVEGROUND AND UNDERGROUND UTILITIES, INCLUDING REMOVAL OR PLUGGING OF EXISTING UTILITIES AS SHOWN ON PLANS.

8. PRIOR TO REMOVAL OF ANY UNDERGROUND TANK AND OTHER COMPONENT, CONTRACTOR MUST COMPLETELY DRAIN THE SYSTEMS TO AN APPROVED SANITATION TANK FOR DISPOSAL TO AN APPROVED LOCATION, AS REQUIRED BY DISPOSAL PERMIT.

9. PROTECT ALL UTILITIES, UNLESS OTHERWISE NOTED.

10. ALL THE CONCRETE AND PAVEMENT TO BE REMOVED MUST BE SAW CUT CLEAN PRIOR TO REMOVAL.

11. WET DOWN MASONRY WALLS AND DEBRIS DURING DEMOLITION AND LOADING OPERATIONS TO PREVENT THE SPREAD OF DUST (AS APPLICABLE TO PROJECT).

12. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS AND OTHER ON-SITE EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR (AS APPLICABLE TO PROJECT).

12082-MULTI-DETL Wednesday, July 09, 2025

13. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ON THE DRAWINGS ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH THE WORK.

14. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO REMOVAL OR RELOCATION OF ANY ELECTRICAL, TELEPHONE, CABLE AND/OR GAS LINES. SUFFICIENT TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.

15. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER/ENGINEER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINANT IS ENCOUNTERED DURING THE DEMOLITION/EXCAVATION PROCESS.

16. FILL FOR LOWER LEVELS OF DEMOLISHED STRUCTURES MAY INCLUDE CONCRETE OR MASONRY RUBBLE RESULTING FROM DEMOLITION, SUBJECT TO THE ENGINEER'S/ARCHITECT'S APPROVAL. RUBBLE SHALL PASS THROUGH A THREE-INCH RING.

17. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.

18. MAINTAIN ACCESS TO SURROUNDING PROPERTIES AND BUILDINGS.

19. PRIOR TO DEMOLITION OCCURRING ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.

20. ALL TRAFFIC SIGNS OUTSIDE THE DEMOLITION AREA ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.

21. ANY MUCK ENCOUNTERED UNDER PROPOSED STRUCTURES SHALL BE REMOVED TO FIVE-FEET BEYOND THE FOOTPRINT OF THAT STRUCTURE. BACKFILL WITH APPROVED FILL MATERIAL SATISFYING ALL COMPACTION REQUIREMENTS.

22. ALL EXISTING UTILITIES WITHIN THE DEMOLITION SITE AREA SHALL BE ADJUSTED, REMOVED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. WORK SHALL BE COORDINATED BY THE CONTRACTOR DIRECTLY WITH THE APPROPRIATE UTILITY COMPANY. ALL EXPENSES SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

23. ALL TRASH, DEBRIS AND OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

ISSUED FOR BID

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE: No: 85538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CH'D	DESCRIPTION
1	07/02/2025	JLS	DECF	ADDENDUM #2

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 2

SHEET NO. DT-02 | SHT # 130

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

PRE-DEMOLITION RESPONSIBILITIES:

1. UPON RECEIPT OF NOTICE OF AWARD, THE CONTRACTOR SHALL ARRANGE A PRE-DEMOLITION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, ALL AFFECTED UTILITY OWNERS, THE OWNER, THE ENGINEER AND THE CONTRACTOR.
2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK.
3. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE FOR THE OWNER A LISTING OF THE FACILITIES THE CONTRACTOR SHALL UTILIZE FOR RECYCLING AND DISPOSAL OF SPECIFIC MATERIALS. CONTRACTOR TO INDICATE THE MATERIALS INTENDED FOR RECYCLING AND THE MATERIALS INTENDED FOR DISPOSAL FOR OWNER'S APPROVAL.
4. PRIOR TO DEMOLITION, CONTRACTOR TO PROVIDE THE OWNER SKETCHES SHOWING PROPOSED HAULING ROUTES TO RECYCLING AND DISPOSAL FACILITIES FOR APPROVAL.
5. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF DEMOLITION.
6. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE CITY AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH IT FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.
8. THE LOCATIONS OF EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY.
9. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL FIELD LOCATE EXISTING UNDERGROUND UTILITIES WITH THE UTILITY OWNERS.
10. THE CONTRACTOR IS RESPONSIBLE FOR RELOCATION'S OF THE VARIOUS EXISTING UTILITIES WITH THE UTILITY OWNERS, WHICH SHALL BE DONE IN A TIMELY MANNER TO MINIMIZE IMPACT ON DEMOLITION SCHEDULE. ANY DELAY CAUSED BY THE CONTRACTOR BY THE RELOCATION OF UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
11. SUNSHINE STATE ONE CALL OF FLORIDA, INC. REQUIRES THE CONTRACTOR TO CALL TWO (2) FULL BUSINESS DAYS (BUT NOT MORE THAN FIVE) PRIOR TO BREAKING GROUND TO FIND OUT WHERE BURIED FACILITIES (ELECTRICAL, GAS, TELEPHONE, CABLE, WATER) ARE LOCATED.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 3 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION SAFETY:

1. ALL DEMOLITION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL BE STRICTLY OBSERVED.
2. PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS. STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.
3. BUILDING MATERIALS TO BE REMOVED SHALL BE TESTED FOR ASBESTOS AND LEAD PAINT.
4. IF PETROLEUM PRODUCTS ARE FOUND WHILE DEMOLISHING, DISPOSE OF PETROLEUM WASTE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

PAVEMENT DEMOLITION:

1. WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACING LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF DEMOLITION RESULTS IN RAVELING OF SAW CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
2. WHERE EXISTING PAVEMENT, CURB, CURB AND GUTTER, SIDEWALK, DRIVEWAY, OR VALLEY GUTTER IS REMOVED FOR INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES, SAID PAVEMENT, ETC., SHALL BE REPLACED WITH NEW PAVEMENT, ETC. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES, AND OTHER EQUIPMENT AS REQUIRED.
3. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THE DRAWINGS. HOWEVER, IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, BUILDINGS, UTILITIES, ETC., THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPLACEMENT. REPLACEMENT PAVEMENT, SIDEWALK, ETC., SHALL BE NEW.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 4 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION PERMITTING:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITS FOR DEMOLITION FROM RESPONSIBLE REGULATORY AGENCIES WHILE FULLY ACKNOWLEDGING AND COMPLYING WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
2. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION, RECYCLING OR REUSE REQUIRED TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
3. THE CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO COMMENCEMENT OF ANY WORK. ACTUAL REMOVAL AND/OR RELOCATION OF ALL EXISTING LANDSCAPING WITHIN DEMOLITION AREAS TO BE CONDUCTED BY A LANDSCAPE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE SITEWORK DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION ACTIVITIES WITH THE LANDSCAPE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND PRESERVING TREES AS INDICATED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TREE REMOVAL PERMIT OR ANY OTHER APPLICABLE PERMIT TO REMOVE, RELOCATE, OR PRESERVE EXISTING LANDSCAPE AND TREES.
4. ANY TREES FOR REMOVAL FOUND TO BE GREATER THAN OR EQUAL TO THREE (3) INCHES IN DIAMETER AT BREAST HEIGHT (DBH) SHALL REQUIRE A PERMIT WITH THE BROWARD COUNTY ENVIRONMENTAL PROTECTION AND GROWTH MANAGEMENT DEPARTMENT (BCEPGMD).
5. SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE THE LIGHTING, STORM INLET STRUCTURES, OR OTHER STRUCTURES DESIGNATED TO BE SAVED, THEN THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 5 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

DEMOLITION EROSION AND SEDIMENT CONTROL NOTES:

1. THE SCHEDULING, SEQUENCING AND CONTROL MEASURES, WHICH ARE OUTLINED HEREIN, ARE SUBJECT TO THE FINAL DEFINITION BY THE CONTRACTOR WHO SHALL BE SELECTED TO PERFORM THE WORK AND SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND COMPLIANCE.
2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT A DEMOLITION SCHEDULE DEPICTING EACH PHASE OF THE WORK. THE CONTRACTOR SHALL ALSO BE REQUIRED TO SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN ENCOMPASSING THE PRINCIPALS AND THE REQUIREMENTS DESCRIBED HEREIN AND A SCHEDULE FOR THEIR IMPLEMENTATION AND MAINTENANCE FOR THE PROJECT DURATION.
3. DURING DEMOLITION, THE CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO ENSURE AGAINST POLLUTING, SILTATION OR DISTURBANCE TO SUCH AN EXTENT AS TO CAUSE AN INCREASE IN TURBIDITY TO THE EXISTING DRAINAGE SYSTEMS AND ADJACENT WATER BODIES AND WETLANDS, IN COMPLIANCE WITH ALL PERMIT REQUIREMENTS RELATED TO SUCH MEASURES.
4. METHODS MAY INCLUDE TEMPORARY EROSION AND SEDIMENT CONTROLS SUCH AS SEDIMENT BASINS, SEDIMENT CHECKS, SILT BARRIERS, SILT SCREENS, TURBIDITY BARRIERS OR THE BEST MANAGEMENT PRACTICES AVAILABLE TO THE INDUSTRY.
5. EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE MAINTAINED THROUGHOUT THE DEMOLITION PERIOD AND UNTIL NEW VEGETATIVE GROWTH HAS BEEN ESTABLISHED.
6. THROUGHOUT THE DEMOLITION PERIOD, THE CONTRACTOR SHALL INSPECT DAILY THE EROSION AND SEDIMENT CONTROL INSTALLATIONS FOR FAILURE OR SIGNS OF FAILURE OR MALFUNCTION. REPAIR OR REPLACE THE EROSION AND SEDIMENT CONTROL INSTALLATIONS IMMEDIATELY UPON DISCOVERY OF FAILURE OR MALFUNCTION.
7. INLETS AND CATCH BASINS, EXISTING ON-SITE AND OFF-SITE, SHALL BE PROTECTED FROM SEDIMENT STORM RUNOFF.
8. THE CONTRACTOR SHALL PROMPTLY REMOVE ALL MUD, DIRT OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC ROADS AND FACILITIES DUE TO DEMOLITION.
9. DEWATERING ACTIVITIES SHALL NOT RESULT IN ANY DISCHARGE OF TURBID WATER FROM THE PROJECT SITE WITHOUT PROPER EROSION AND SEDIMENT CONTROL AND APPROVAL FROM ENGINEER.
10. PHASING OF EROSION CONTROL DEMOLITION SHALL BE RECOMMENDED AS FOLLOWS:
    - 10.1. PLACEMENT OF PERIMETER PROTECTIVE MEASURES (SILT FENCE, HAY BALES, TURBIDITY BARRIERS, ETC.) AROUND ON-SITE FEATURES TO BE RETAINED, AT POINTS OF OFF-SITE DISCHARGE AND AROUND WORK AREAS TO BE EXCAVATED OR FILLED.
    - 10.2. REROUTE RUNOFF FROM AREAS OUTSIDE OF THE DEMOLITION AREA TO MINIMIZE FLOW THROUGH AREAS TO BE DISTURBED BY DEMOLITION. BERMS, SWALES AND OTHER MEANS USED FOR SUCH CONVEYANCE SHALL BE VEGETATED AND MEASURES TAKEN TO PROVIDE PROTECTION UNTIL STABILIZATION OCCURS (AS APPLICABLE TO THE PROJECT).

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 6 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

10.3. SELECT LOCATIONS FOR PLACEMENT OF EXCAVATED MATERIAL, WHERE SUITABLE FOR FILL OR UNSUITABLE MATERIAL, AND CONSTRUCT CONTAINMENT BERMS AROUND THE AREA. THE USE OF STRIPING FOR THIS PURPOSE MAY ACCELERATE BERM REVEGETATION. CONSTRUCT TEMPORARY OUTLETS FOR CONTAINMENT AREAS WITH SCREENS, HAY BALES, SETTLING BASINS OR OTHER MEASURES TO PREVENT SILT TRANSPORT.

10.4. SELECT / DESIGNATE ACCESS ROUTING FOR DEMOLITION EQUIPMENT AND VEHICLES AND PROVIDE PERIMETER PROTECTIVE MEASURES WHERE EXISTING TERRAIN SHALL BE SUBJECT TO DISRUPTION BY SUCH TRAFFIC.

10.5. CONSTRUCT ABOVE GROUND OR OTHER CONTAINMENT AREAS FOR DEMOLITION AREA RUNOFF. PROVIDE SCREENS, HAY BALES, ETC. TO FILTER DISCHARGE FROM THOSE AREAS.

10.6. SPOIL MOUNDS SHALL NOT BE LEFT FOR MORE THAN ONE WEEK PRIOR TO REPLACEMENT UNLESS PROTECTIVE CONTAINMENT MEASURES IN THE WORK AREA ARE APPLIED.

10.7. GRASSING, SODDING, ETC. SHALL BE IN PLACE IMMEDIATELY UPON COMPLETION OF REGRADING, SWALE SLOPES AND THE CONSTRUCTED OR DISTURBED AREAS.

11. THE CONTRACTOR IS REQUIRED TO ADHERE TO THE REQUIREMENT OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES). THE CONTRACTOR SHALL INSTITUTE BEST MANAGEMENT PRACTICES (BMPS) TO ENSURE COMPLIANCE WITH THE NPDES PROGRAM AND TO MINIMIZE THE IMPACT TO PUBLIC STORMWATER FACILITIES. A NOTICE OF INTENT (NOI) SHALL BE FILED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
12. THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND MAINTAIN ALL RECORDS REQUIRED BY ITS NPDES STORMWATER PERMIT FOR ITS CONSTRUCTION ACTIVITIES.
13. PRIOR TO CONSTRUCTION, A SILT FENCE IN ACCORDANCE WITH CITY'S DETAIL SHALL BE ERECTED AS NOTED ON PLANS. ALL PROPOSED CATCH BASINS SHALL HAVE THEIR INLETS PROTECTED BY THE INSTALLATION OF FILTER INLET INSERTS INTO THE FRAME AND GRATE. SILT FENCES AND FILTER INLET INSERTS SHALL REMAIN IN PLACE DURING THE ENTIRE DURATION OF CONSTRUCTION.
14. CONTRACTOR SHALL BRACE ALL EXISTING LANDSCAPING TO REMAIN PRIOR TO BEGINNING ANY WORK AND SHALL ENSURE ITS STABILIZATION THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS. EXISTING SOD DISTURBED BY CONSTRUCTION THAT IS NOT AFFECTED BY PROPOSED GRADING SHALL BE RESTORED TO NEW CONDITION UPON COMPLETION OF CONSTRUCTION. SODDED SLOPES STEEPER THAN FOUR HORIZONTAL TO ONE VERTICAL SHALL BE PEGGED.
15. ALL WASTE GENERATED FROM THE CONSTRUCTION SHALL BE DISCARDED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL REGULATIONS. CONTRACTOR SHALL OBTAIN ALL APPLICABLE CODES AND BECOME FAMILIAR WITH STATE, LOCAL AND FEDERAL REGULATIONS PRIOR TO BEGINNING CONSTRUCTION.
16. TO ENSURE THAT OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST IS MINIMIZED, CONTRACTOR SHALL PUT INTO PRACTICE THE METHODS DETAILED IN FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 106 (2010 DESIGN STANDARDS) AND BMPS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 7 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

17. DUST GENERATED FROM CONSTRUCTION SHALL BE MINIMIZED BY DAILY WATERING OF THE SITE.
18. AT ANY TIME DURING CONSTRUCTION THAT THE SILT FENCING IS DISTURBED, THE SILT FENCING SHALL BE RESTORED TO ITS ORIGINAL STATE WITHIN 24 HOURS. AT NO TIME DURING CONSTRUCTION SHALL WORK BE PERFORMED WITHOUT THE INTEGRITY OF THE SILT FENCING SECURED.
19. A QUALIFIED INSPECTOR, PROVIDED BY THE CONTRACTOR, SHALL INSPECT ALL POINTS OF DISCHARGE INTO NEARBY SURFACE WATER. THE INSPECTION SHALL OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. INSPECTION INCLUDES THE WRITTEN RECORDING OF THE CONDITION OF ALL DISCHARGE POINTS, INTEGRITY OF SILT FENCING, DAILY DUST CONTROL MEASURES, VEHICULAR TRAFFIC AND CONSTRUCTION MATERIAL STORAGE AND DISPOSAL. WRITTEN RECORD OF ALL INSPECTIONS SHALL BE STORED BY THE CONTRACTOR.
20. THE INSPECTION REPORT SHALL INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING INFORMATION: NAME AND QUALIFICATION OF PERSONNEL MAKING THE INSPECTION, DATE OF INSPECTION, RAINFALL DATE, MAJOR OBSERVATIONS RELATING TO THE SWPPP, ACTIONS TAKEN BY CONTRACTOR AND ANY INCIDENT OF NONCOMPLIANCE WITH PERMIT. WHERE AN INSPECTION DOES NOT IDENTIFY ANY INCIDENT OF NONCOMPLIANCE, THE REPORT SHALL CONTAIN A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE PERMIT.
21. THE CONTRACTOR SHALL RETAIN A COPY OF THE SWPPP AND ALL REPORTS, RECORDS AND DOCUMENTATION REQUIRED BY THE PERMIT AT THE CONSTRUCTION SITE, OR AN APPROPRIATE ALTERNATIVE LOCATION AS SPECIFIED IN THE NOTICE OF INTENT, FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.
22. THE CONTRACTOR SHALL RETAIN THE SWPPP, NOI AND ALL RECORDS ASSOCIATED THEREWITH FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED.
23. SEE LANDSCAPE PLANS FOR TREE REMOVAL AND LANDSCAPE DEMOLITION.
24. CONTRACTOR SHALL COORDINATE THROUGH CITY'S CONSTRUCTION DIVISION AND CITY'S PARKS DEPARTMENT ON HOW TO STOCK AND RE-USE EXCAVATED SOIL FROM SITE (AS APPLICABLE TO THE PROJECT).

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 8 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

INTERRUPTION OF EXISTING UTILITIES:

1. ANY DEMOLITION WORK THAT REQUIRES INTERRUPTION OF SERVICE TO ANY CUSTOMER SHALL BE DONE SO WITH A MINIMUM OF SEVENTY-TWO (72) HOUR WRITTEN NOTICE TO, AND WRITTEN APPROVAL BY, THE APPROPRIATE UTILITY COMPANY.
2. THE CONTRACTOR SHALL ARRANGE A MEETING WITH THE LOCAL JURISDICTIONAL AGENCIES AND OTHER GOVERNING AGENCIES, AND OTHER AFFECTED UTILITIES PRIOR TO SCHEDULING THE SHUT DOWN TO ASSESS THE SCOPE OF WORK.
3. ALL SYSTEM SHUT DOWNS SHALL BE SCHEDULED BY THE CONTRACTOR AT SUCH TIME THAT SYSTEM DEMAND IS LOW. THIS GENERALLY REQUIRES NIGHT TIME WORK BY THE CONTRACTOR AND REQUIRES FULL-TIME INSPECTION BY A REPRESENTATIVE OF THE UTILITY. ALL COST FOR OVERTIME WORK BY THE REPRESENTATIVE OF THE UTILITY SHALL BE BORNE BY THE CONTRACTOR.
4. EACH CUSTOMER AFFECTED BY THE SHUT-DOWN SHALL BE PROVIDED, MINIMUM, FORTY-EIGHT (48) HOURS WRITTEN NOTIFICATION BY THE CONTRACTOR.

TEMPORARY DEMOLITION FACILITIES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO ITS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING DEMOLITION.
2. MAINTENANCE OF TRAFFIC (MOT) IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
3. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
4. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS WRITTEN PERMISSION OF THE CITY OR RESPECTIVE GOVERNING AGENCY.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DEMOLITION NOTES SHEET 9 | DETAIL NO. GNRL 009 | REVISED 2017/07/13

ISSUED FOR BID

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE: No: 85538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 3

SHEET NO. DT-03 | SHT # 131
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

WASTE MANAGEMENT PLAN:

1. IMPLEMENT A WASTE MANAGEMENT PLAN FOR APPROVAL BY THE OWNER. PROVIDE HANDLING, CONTAINERS, STORAGE, SIGNAGE, TRANSPORTATION AND OTHER ITEMS AS NEEDED TO IMPLEMENT THE WASTE MANAGEMENT PLAN DURING THE ENTIRE DURATION OF THE CONTRACT.
2. DESIGNATE A WASTE MANAGEMENT COORDINATOR TO BE RESPONSIBLE FOR IMPLEMENTING, MONITORING AND REPORTING STATUS OF WASTE MANAGEMENT WORK PLAN. COORDINATOR SHALL BE PRESENT AT PROJECT SITE FULL-TIME FOR DURATION OF PROJECT.
3. TRAIN WORKERS, SUBCONTRACTORS AND SUPPLIERS ON PROPER WASTE MANAGEMENT PROCEDURES, AS APPROPRIATE FOR THE WORK AT THE PROJECT SITE.
4. DISTRIBUTE A WASTE MANAGEMENT PLAN BEFORE WORK BEGINS. REVIEW PLAN PROCEDURES AND LOCATION ESTABLISHED FOR SALVAGE, RECYCLING AND DISPOSAL.

RECYCLING DEMOLITION WASTE:

1. SEPARATE RECYCLABLE WASTE FROM OTHER WASTE MATERIALS, TRASH AND DEBRIS. SEPARATE RECYCLABLE WASTE BY TYPE AT THE PROJECT SITE TO THE MAXIMUM EXTENT PRACTICAL.
2. PROVIDE APPROPRIATELY MARKED CONTAINERS OR BINS FOR CONTROLLING RECYCLABLE WASTE UNTIL THEY ARE REMOVED FROM THE PROJECT SITE. INCLUDE A LIST OF ACCEPTABLE AND UNACCEPTABLE MATERIALS AT EACH CONTAINER AND BIN.
3. INSPECT CONTAINERS AND BINS FOR CONTAMINATION AND REMOVE CONTAMINATED MATERIALS IF FOUND.
4. STOCKPILE PROCESSED MATERIALS ON-SITE WITHOUT INTERMIXING WITH OTHER MATERIALS. PLACE, GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
5. STOCKPILE MATERIALS AWAY FROM DEMOLITION AREA. DO NOT STORE WITHIN DRIP LINE OF REMAINING TREES.
6. STORE COMPONENTS OFF THE GROUND AND PROTECT FROM THE WEATHER.
7. REMOVE RECYCLABLE WASTE OFF THE OWNER'S PROPERTY AND TRANSPORT TO RECYCLING RECEIVER OR PROCESSOR.
8. ASPHALTIC CONCRETE PAVING: BREAK UP AND TRANSPORT PAVING TO ASPHALT RECYCLING FACILITY.
9. CONCRETE: REMOVE REINFORCEMENT AND OTHER METALS FROM CONCRETE AND SORT WITH OTHER METALS.
10. MASONRY: MASONRY WASTE SHALL INCLUDE WHOLE OR BROKEN BRICK AND CONCRETE MASONRY UNITS. WHOLE MASONRY UNITS SHALL BE CLEANED AND REUSED OR DONATED. BROKEN MASONRY SHALL BE CRUSHED AND USED AS FILL FOR OFFSITE AREAS. REMOVE METAL REINFORCEMENT, ANCHORS AND TIES FROM MASONRY AND SORT WITH OTHER METALS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DEMOLITION NOTES
SHEET 10

DETAIL No. GNRL 009 — DATE 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

11. METALS: METALS FROM REINFORCED CONCRETE, REINFORCED MASONRY, STRUCTURAL STEEL MEMBERS, FLASHING AND SHEET METAL, CONDUIT PIPE, SIDING, PIPING AND WIRING SHALL BE SEPARATED BY TYPE.
12. STRUCTURAL STEEL: STACK MEMBERS ACCORDING TO THEIR SIZE, TYPE AND LENGTH.
13. NUTS AND BOLTS: REMOVE BOLTS, NUTS, WASHERS AND OTHER ROUGH HARDWARE.
14. SITE-CLEARING WASTE SHALL BE RECYCLED BY CHIPPING BRUSH, BRANCHES AND TREES, THEN HAUL TO WOOD RECYCLING CENTER.

DISPOSAL OF WASTE:

1. GENERAL: EXCEPT FOR ITEMS OR MATERIALS TO BE SALVAGED, RECYCLED OR OTHERWISE REUSED, REMOVE WASTE MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN A LANDFILL OR OTHER PERMITTED DISPOSAL FACILITY.
2. EXCEPT AS OTHERWISE SPECIFIED, DO NOT ALLOW WASTE MATERIALS THAT ARE TO BE DISPOSED OF TO ACCUMULATE ON-SITE.
3. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT SHALL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
4. BURNING: DO NOT BURN WASTE MATERIALS.
5. DISPOSAL: TRANSPORT WASTE MATERIALS OFF THE OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DEMOLITION NOTES
SHEET 11

DETAIL No. GNRL 009 — DATE 2017/07/17

12082-MULTI-DETL Wednesday, July 09, 2025

MINIMUM DENSITY REQUIREMENTS			
LOCATION	MATERIAL	MINIMUM DENSITY (% OF MAX)	TESTING FREQUENCY
ROADS (INCLUDES SIDEWALKS, ASPHALT PATHS)	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF ROADWAY, SIDEWALK OR PATHWAY.
	SUBGRADE	98%	
	BASE	98%	
MANHOLES AND VAULTS (IN ROADS AND PARKING AREAS)	IN-PLACE SUBGRADE BENEATH STRUCTURES	95%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE BOTTOM OF THE STRUCTURE AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: PERFORM TESTING AT EACH STRUCTURE.
	BACKFILL BENEATH STRUCTURES	98%	
	BACKFILL AROUND STRUCTURES	98%	
	CRUSHED STONE BENEATH STRUCTURES	NOTE 6	
PARKING AREAS	BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT TOP OF FIRST LIFT AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED EVERY 6,000 SQUARE FEET OF PARKING AREA.
	SUBGRADE	98%	
	BASE	98%	
UTILITY TRENCH BACKFILL	BEDDING AND BACKFILL	98%	VERTICAL DISTRIBUTION: ONE TEST AT EVERY LIFT STARTING AT THE SPRING LINE AND PROCEEDING UPWARD TO GRADE. HORIZONTAL DISTRIBUTION: TESTS SHALL BE PERFORMED AT RANDOMLY SELECTED LOCATIONS WITHIN EACH 300 FOOT INTERVAL (MAXIMUM) ALONG THE LENGTH OF A PIPE INSTALLATION, AND BETWEEN EACH SET OF STRUCTURES SEPARATED BY LESS THAN 300 FEET.
ROADS AND PARKING	ASPHALT	94%	ASPHALT TESTING MAY BE DONE BY CORE SAMPLING OR NUCLEAR GAUGE DENSITY TESTING. ASPHALT TESTING SHALL BE AT MAXIMUM 300 LINEAR FOOT ALONG ROADWAYS AND 6,000 SQUARE FOOT INTERVALS FOR PARKING AREAS.

NOTES:

1. THE DENSITY REQUIREMENTS PRESENTED ASSUME DRY TRENCH CONDITIONS.
2. UNLESS INDICATED OTHERWISE IN THE SPECIFICATIONS, TESTING SHALL COMPLY WITH THE REQUIREMENTS PRESENTED IN THIS TABLE.
3. LIFT THICKNESSES FOR BASE, SUBGRADE AND BACKFILL SHALL BE AS INDICATED ON THE DETAILS OR DESCRIBED IN THE SPECIFICATIONS.
4. MAXIMUM DENSITY SHALL BE DETERMINED BY ASTM D 1557 OR AASHTO T180 (MODIFIED PROCTOR).
5. FIELD DENSITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D 1556 OR D 2922.
6. THE AGGREGATE SHALL BE COMPACTED TO A DEGREE ACCEPTABLE TO THE ENGINEER BY USE OF A VIBRATORY COMPACTOR AND/OR CRAWLER TRACTOR.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DENSITY TESTING NOTES

DETAIL No. GNRL 010 — DATE 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

EROSION AND SEDIMENT CONTROL:

1. CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL STATE AND OTHER GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.
2. DURING CONSTRUCTION ALL CATCH BASIN INLETS SHALL BE PROTECTED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CATCH BASIN.
3. SILT FENCES SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT DISCHARGE OF SEDIMENT ONTO ADJACENT UNDISTURBED AREAS, OR OFF-SITE AREAS.
4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.
5. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
6. ALL EXPOSED AREAS SHALL BE SODDED AS SPECIFIED WITHIN 30 DAYS OF FINAL GRADING.
7. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN AND AT LEAST ONCE A WEEK.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
9. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
10. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY CITY, COUNTY, AND STATE OF FLORIDA ON SITE INSPECTION, AT NO ADDITIONAL COST TO THE OWNER.
11. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
12. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
13. BURNING OF DEBRIS WILL NOT BE ALLOWED.
14. CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
15. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATER WAYS. IN ADDITION CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE IF IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES IF EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC. THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS THE FIRST ITEM OF WORK.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EROSION AND SEDIMENT CONTROL NOTES
SHEET 1

DETAIL No. ESC 001 — DATE 2017/07/08

12082-MULTI-DETL Wednesday, July 09, 2025

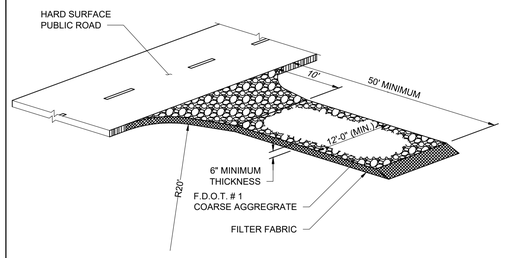
16. THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM APPLIES TO ALL CONSTRUCTION ACTIVITY THAT: 1) CONTRIBUTE STORMWATER DISCHARGES TO SURFACE WATER OF THE STATE OR INTO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4); 2) DISTURBS ONE OR MORE ACRES OF LAND; OR 3) LESS THAN ONE ACRE IS INCLUDED IF THE ACTIVITY IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT WILL MEET OR EXCEED THE ONCE ACRE THRESHOLD. DISTURB INCLUDES CLEARING, GRADING AND EXCAVATING.
17. FOR CONSTRUCTION ACTIVITY THAT IS SUBJECT TO THE NPDES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S STORMWATER PERMITTING PROGRAM, THE CONTRACTOR SHALL:
    - 17.1.1. OBTAIN A GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION DOCUMENT 62-621.300(4)(A).
    - 17.1.2. COMPLY WITH ALL REQUIREMENTS OF THE GENERIC PERMIT.
    - 17.1.3. DEVELOP AND IMPLEMENT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
    - 17.1.4. COMPLETE A NOTICE OF INTENT (NOI) FLORIDA DEPARTMENT OF ENVIORNMENTAL PROTECTION FORM 62-621.300(4)(B) IN ITS ENTIRETY USING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S WEBSITE.
18. SUBMIT COPIES OF THE SWPPP AND THE NOI TO THE ENGINEER AS INFORMATIONAL RECORDS. THESE SUBMITTALS WILL NOT BE REVIEWED BY THE ENGINEER.
19. CONTRACTOR TO CLEAN AND REPAIR ALL EXISTING STORMWATER INFRASTRUCTURE THAT IS IMPACTED BY CONSTRUCTION ACTIVITIES, BEFORE LEAVING THE JOBSITE.
20. CONTRACTOR TO REMOVE ALL FILTER FABRIC AND POLLUTION PREVENTION ITEMS BEFORE THE FINAL WALK-THROUGH.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EROSION AND SEDIMENT CONTROL NOTES
SHEET 2

DETAIL No. ESC 001 — DATE 2017/07/08

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

GRAVEL CONSTRUCTION ENTRANCE

DETAIL No. ESC 002 — DATE 2017/07/08

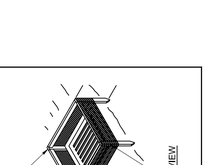
12082-MULTI-DETL Wednesday, July 09, 2025

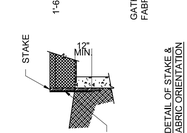
CONTRACTOR'S RESPONSIBILITY

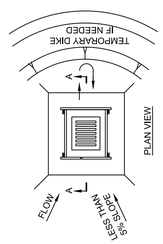
EROSION AND SEDIMENTATION CONTROLS ARE PERFORMANCE BASED AND MAY REQUIRE MODIFICATIONS TO CONTROL SEDIMENTS FROM LEAVING A CONSTRUCTION SITE. THEN THE CONTRACTOR IS REQUIRED TO EMPLOY ADDITIONAL PROCEDURES TO PROVIDE CLEAN RUNOFF FROM A SITE.

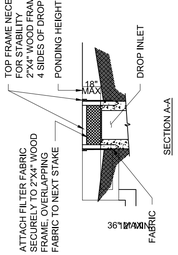
NOTES:

1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL DRAINAGE AREAS (LESS THAN 5%).
2. USE 2"X4" WOOD OR EQUIVALENT METAL STAKES. (3' MIN. LENGTH).
3. INSTALL 2"X4" WOOD TOP FRAME TO INSURE STABILITY.
4. THE TOP OF THE FRAME SHOULD BE AT LEAST 6" BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET.
5. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
6. MIRAFI OR APPROVED EROSION CONTROL FABRIC SHALL BE WRAPPED AROUND GRATE.
7. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.









CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS — 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DROP INLET PROTECTION - SEDIMENT BARRIER

DETAIL No. ESC 004 — DATE 2016/08/21

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE: No: 85558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DATE: 07/09/2025
DESIGNED BY: DECF | SCALE: AS SHOWN
CHECKED BY: JJM | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 4

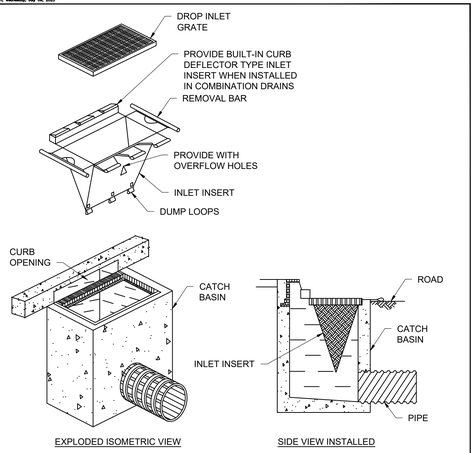
SHEET NO. DT-04 | SHT # 132

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



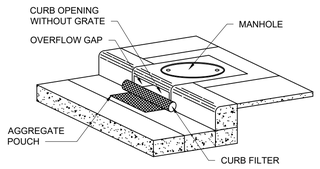
EXPLODED ISOMETRIC VIEW SIDE VIEW INSTALLED

NOTES:

1. THE INLET INSERT SHALL BE A SEDIMENT CONTROL DEVICE DESIGNED FOR DROP INLETS OR COMBINATION DRAINS WHERE A DROP INLET IS COUPLED WITH A CURB INLET.
2. THE INLET INSERT SHALL BE MADE OF A PERMEABLE GEOTEXTILE THAT ALLOWS WATER TO PASS BUT PREVENTS SILT AND SEDIMENT FROM CLOGGING THE DRAIN SYSTEM.
3. THE CONTRACTOR SHALL CLEAN AND INSPECT REGULARLY AND AFTER EVERY MAJOR RAIN EVENT.
4. INLET INSERTS SHALL BE "SILTSACK" BY ACF ENVIRONMENTAL, OR EQUAL. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | DROP INLET PROTECTION - INLET INSERT | DETAIL NO. ESC 005 | 2017/07/13

12082-MULTI-DETL Wednesday, July 09, 2025

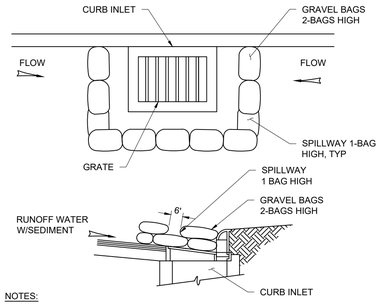


NOTES:

1. INSTALL CURB FILTERS AT ALL INLETS WITHOUT GRATES TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM SYSTEM
2. THE CURB FILTER SHALL BE DANDY CURB AS MANUFACTURED BY DANDY PRODUCTS INC., OR EQUAL. SUBMIT SHOP A SHOP DRAWING FOR THE CURB FILTERS.
3. THE CURB FILTER SHALL FORM OF A CYLINDRICAL TUBE PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET OPENING ON BOTH SIDES.
4. THE CURB FILTER SHALL HAVE A POUCH ON THE STREET SIDE OF THE UNIT FOR STONE AGGREGATE TO HOLD THE FILTER IN PLACE.
5. THE CURB FILTER SHALL BE CONSTRUCTED OF A HIGH VISIBILITY ORANGE MONOFILAMENT FABRIC.
6. FILL POUCH WITH FDOT #57 STONE AGGREGATE TO A LEVEL (AT LEAST HALF-FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE CURB FILTER AND THE SURFACE OF THE STREET.
7. CENTER THE UNIT AGAINST CURB OR MEDIAN INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIAN BARRIER AND INLET STRUCTURE. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF THE INLET PROTECTION UNIT OVERHANGING ON EACH SIDE OF THE OPENING.
8. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | CURB INLET PROTECTION - CURB FILTER | DETAIL NO. ESC 006 | 2017/07/19

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. A SPILLWAY SHALL BE DESIGNATED FOR EACH DIRECTION OF APPROACHING FLOW AS SHOWN. THE SPILLWAY SHALL BE LOCATED TO ALLOW THE MAXIMUM AMOUNT OF STORMWATER TO POOL WITHOUT FLOODING AREAS UP GRADE OF THE INLET.
2. FOR INLETS THAT ARE NOT ADJACENT TO CURBS, PLACE GRAVEL BAGS ONE BAG HIGH AROUND THE ENTIRETY OF THE INLET TO ACCOMMODATE FLOW FROM ALL DIRECTIONS.
3. BAG MATERIAL: BAGS SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM D4355.
4. BAG SIZE: EACH GRAVEL-FILLED BAG SHALL BE 18-INCHES X 12-INCHES X 3-INCHES AND HAVE A MASS OF APPROXIMATELY 33 LBS. ALTERNATIVE BAG SIZES SHALL BE CONSIDERED BASED ON LOCALLY AVAILABLE MATERIALS.
5. FILL MATERIAL: GRAVEL SHALL BE PEA GRAVEL 3/8 INCHES IN DIAMETER AND SHALL BE CLEAN AND FREE OF CLAY BALLS, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | CURB INLET PROTECTION - GRAVEL BAG | DETAIL NO. ESC 007 | 2017/08/08

12082-MULTI-DETL Wednesday, July 09, 2025

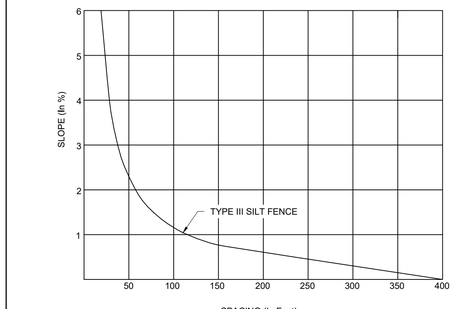
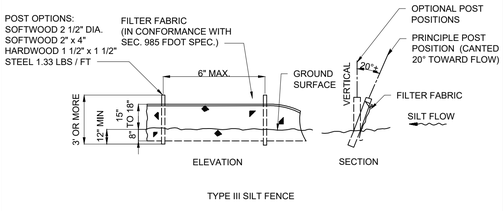


CHART 1: SILT FENCE SPACING



TYPE III SILT FENCE

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | SILT FENCE - SHEET 1 | DETAIL NO. ESC 009 | 2017/07/12

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:

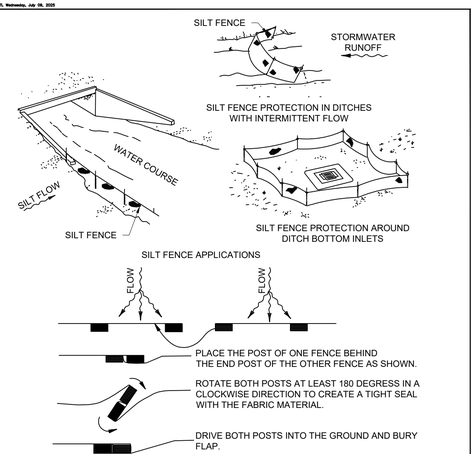
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING

101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025



SILT FENCE APPLICATIONS

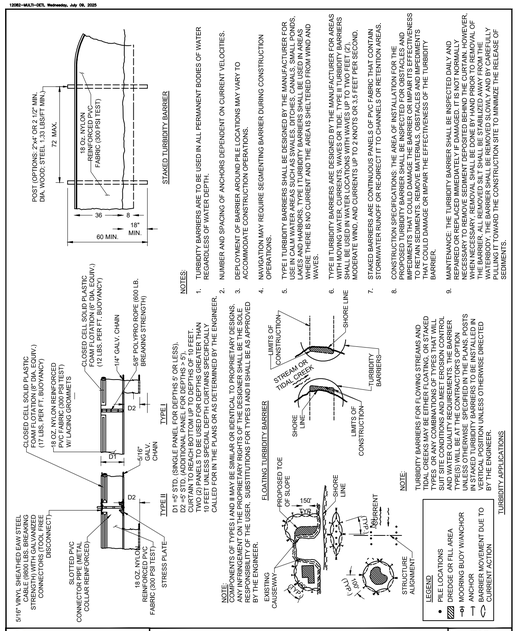
JOINING TWO SILT FENCES

NOTES:

1. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1.
2. 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.
3. 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.

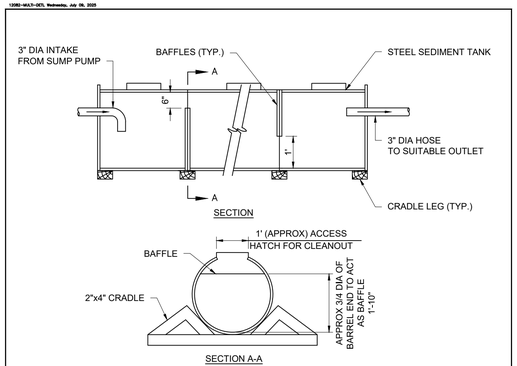
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | SILT FENCE - SHEET 2 | DETAIL NO. ESC 010 | 2017/07/11

12082-MULTI-DETL Wednesday, July 09, 2025


POST OPTIONS: 2"x4" OR 2 1/2" MIN. DIA. WOOD; STEEL 1.33 LBS/FT MIN)
72" MAX.
18 OZ. NYLON REINFORCED PVC FABRIC (500 PSI TEST)
36
8
18" MIN.
60 MIN.
STAKED TURBIDITY BARRIERS
NOTES:
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 PILE DRIVING OPERATIONS.
4. A NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.
5. TYPE I TURBIDITY BARRIERS SHALL BE DESIGNED BY THE MANUFACTURER FOR USE IN CALM WATER AREAS SUCH AS BASINS, DITCHES, CANALS, SMALL PONDS. AND LAKES WITH MINIMAL CURRENTS AND WAVES. TYPE I BARRIERS SHALL BE USED WHERE THERE IS NO CURRENT AND THE AREA IS SHELTERED FROM WIND AND WAVES.
6. TYPE II TURBIDITY BARRIERS ARE DESIGNED BY THE MANUFACTURER FOR AREAS WITH MOVING WATER, CURRENTS, WAVES OR TIDE. TYPE II TURBIDITY BARRIERS SHALL BE USED WHEN INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. (MOST COMMONLY USED TURBIDITY BARRIER).
7. STAKED BARRIERS ARE CONTINUOUS PANELS OF PVC FABRIC THAT CONTAIN STORMWATER RUNOFF OR REDIRECT IT TO CHANNELS OR RETENTION AREAS.
8. CONSTRUCTION SPECIFICATIONS: THE AREA OF INSTALLATION FOR THE PERIMETER TURBIDITY BARRIER SHALL BE CLEARED OF OBSTRUCTIONS AND LOOSE IMPEDIMENTS THAT COULD DAMAGE THE BARRIER OR IMPAIR ITS EFFECTIVENESS TO RETAIN SEDIMENTS. REMOVE MATERIALS, OBSTACLES AND IMPEDIMENTS THAT COULD CAUSE DAMAGE OR IMPAIR THE EFFECTIVENESS OF THE TURBIDITY BARRIER.
9. MAINTENANCE: THE TURBIDITY BARRIER SHALL BE INSPECTED DAILY AND REPAIRED OR REPLACED IMMEDIATELY IF DAMAGED. IT SHALL BE REPAIRED AS NECESSARY TO REMOVE SEDIMENT DEPOSITED BEHIND THE CURTAIN. HOWEVER, THE BARRIER SHALL NOT BE REMOVED UNTIL THE COMPLETION OF THE FINAL OF THE BARRIER. ALL REMOVED SILT SHALL BE STABILIZED AWAY FROM THE WATERBODY. THE BARRIER SHALL BE REMOVED SLOWLY AND BY CAREFULLY ROLLING IT UPON ITSELF TO PREVENT THE RELEASE OF ENTRAPPED SEDIMENTS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | TURBIDITY BARRIER - FLOATING | DETAIL NO. ESC 011 | 2017/07/08

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.
2. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF IN A SEDIMENT TRAPPING DEVICE, AN APPROVED LOCATION IN WHICH FURTHER SEDIMENT TRANSPORT WILL NOT OCCUR OR AS APPROVED BY THE INSPECTOR.
3. PORTABLE SEDIMENT TANK SHALL BE AN ABOVE GROUND HORIZONTAL SINGLE-WALL UL-142 MANUFACTURED BY HIGHLAND TANK OR WEIR BOX MANUFACTURED BY RAIN FOR RENT OR EQUIVALENT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS, 100 North Andrews Avenue, Fort Lauderdale, Florida 33301 | PORTABLE SEDIMENT TANK | DETAIL NO. ESC 012 | 2017/07/08

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

NO.	DATE	BY	CHK'D	DESCRIPTION

REVISIONS

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 5

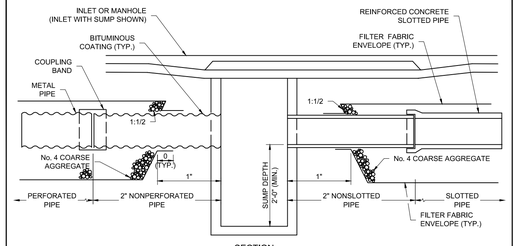
SHEET NO. DT-05 | SHT # 133

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



SECTION

NOTES:

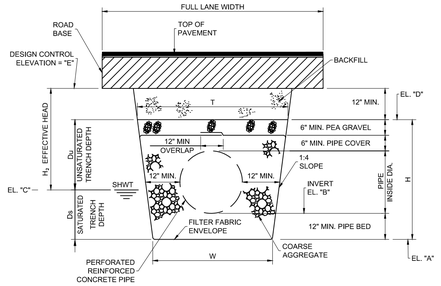
1. EXFILTRATION PIPE SHALL COMPLY WITH FDOT STANDARD SPECIFICATION SECTION 443.
2. CONCRETE PIPE SHALL BE PLACED WITH SLOTS POSITIONED ON SIDES.
3. ALIGNMENT JOINTS ARE STANDARD (GASKETS NOT REQUIRED). RECORREGATION OF METAL PIPE ENDS NOT REQUIRED.
4. FILTER FABRIC SHALL BE SUBSURFACE DRAINAGE TYPE PER FDOT SECTION 985. ALL FILTER FABRIC JOINTS SHALL LAP A MINIMUM OF 2 FEET.
5. PREVENT CONTAMINATION OF THE EXFILTRATION TRENCH WITH SAND, SILT AND FOREIGN MATERIALS.
6. NO WEEP HOLES SHALL BE PERMITTED IN STRUCTURES.
7. PIPE INVERT SHALL BE AT OR ABOVE THE WATER TABLE WHEN POSSIBLE.
8. COAT END OF METAL PIPE AT MANHOLE CONNECTION WITH A BITUMINOUS COATING. COATING SHALL EXTEND 12" BEYOND EXTERIOR OF MANHOLE.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EXFILTRATION TRENCH
LONGITUDINAL SECTION

STRM No. STRM 001
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



TRENCH SCHEDULE		
PARAMETER	TRENCH 1	TRENCH 2
PIPE DIAMETER		
W		
T		
H		
Ds		
Du		
H_2		
EL. "A"		
EL. "B"		
EL. "C"(SHWT)		
EL. "D"		
EL. "E" (DCE)		

NOTES:
DCE: DESIGN CONTROL ELEVATION
SHWT: SEASONAL HIGH WATER TABLE

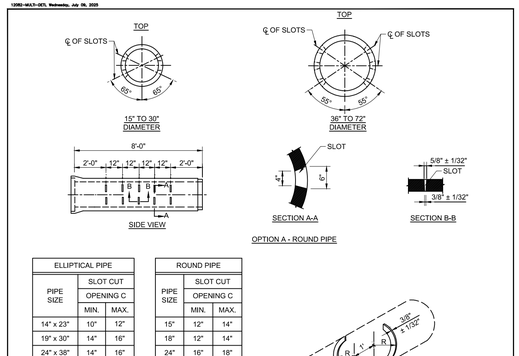
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

EXFILTRATION TRENCH
CROSS SECTION

STRM No. STRM 002
Revised 2016/09/21

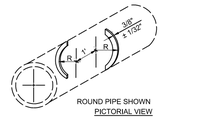
PLEASE SEE SHEET DT-19 FOR EXFILTRATION TRENCH DATA TABLE

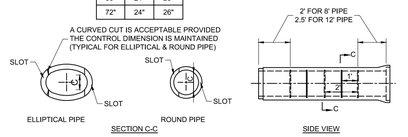
12082-MULTI-DETL Wednesday, July 09, 2025



ELLIPTICAL PIPE		
PIPE SIZE	SLOT CUT OPENING C	
	MIN.	MAX.
14" x 23"	10"	12"
19" x 30"	14"	16"
24" x 38"	14"	16"
29" x 45"	20"	22"
34" x 53"	20"	22"
38" x 60"	20"	22"

ROUND PIPE		
PIPE SIZE	SLOT CUT OPENING C	
	MIN.	MAX.
15"	12"	14"
18"	12"	14"
24"	16"	18"
30"	16"	18"
36"	22"	24"
42"	22"	24"
48"	22"	24"
54"	24"	26"
60"	24"	26"
66"	24"	26"
72"	24"	26"





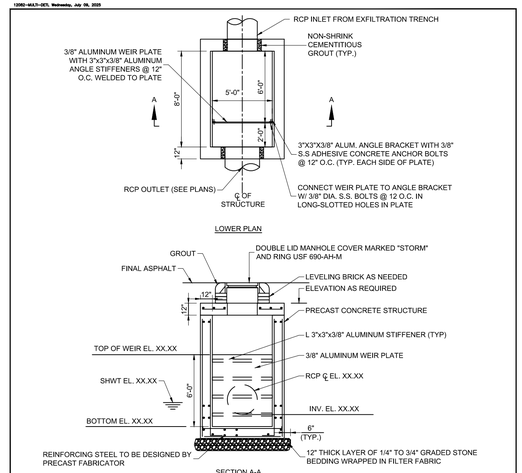
OPTION B - ROUND OR ELLIPTICAL PIPE

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REINFORCED CONCRETE SLOTTED PIPE

STRM No. STRM 003
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. ALL PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM C478.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR ENGINEER'S REVIEW AND APPROVAL. SHOP DRAWING SHALL INCLUDE DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
3. SHOP DRAWINGS SHALL INCLUDE CALCULATIONS DEMONSTRATING THAT STRUCTURE WILL RESIST FLOATION WHEN EMPTY AND SUBJECT TO GROUNDWATER TO TOP OF STRUCTURE.
4. PRECAST CONCRETE SECTION SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
   a. LATERAL SOIL PRESSURE.
   b. GROUNDWATER ELEVATION = AT GRADE
   c. COMPACTION OF SOIL DURING BACKFILL.
   d. ADDITION STRESSES INDUCED BY TRANSPORTATION AND HANDLING.
   e. PIPE THRUST = 500 LB.
   f. H-20 TRUCK LOAD.

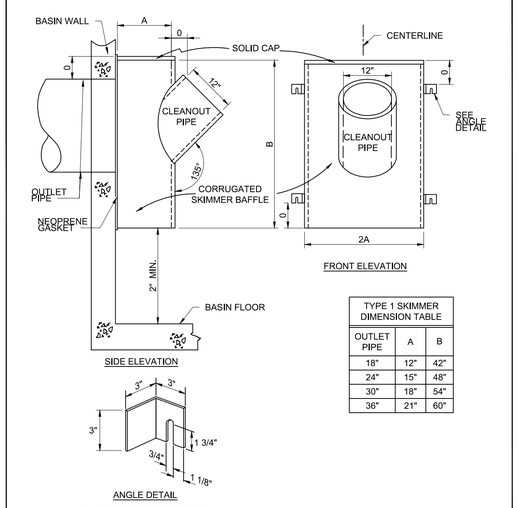
LEGEND:
SHWT: SEASONAL HIGH WATER TABLE

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TRENCH OVERFLOW STRUCTURE
PLAN AND SECTION
SHEET 1

STRM No. STRM 004
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



ANGLES ON OTHER SIDE OF
SKIMMER ARE MIRROR IMAGE

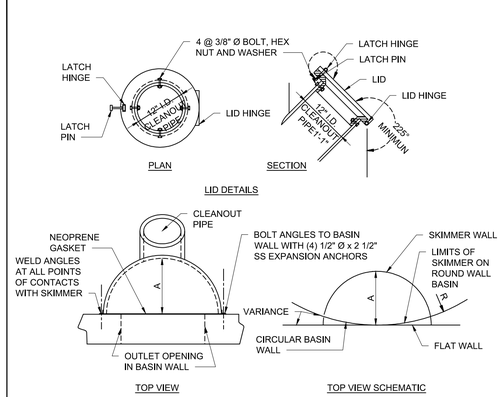
TYPE 1 SKIMMER DIMENSION TABLE		
OUTLET PIPE	A	B
18"	12"	42"
24"	15"	48"
30"	18"	54"
36"	21"	60"

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 1 - SHEET 1

STRM No. STRM 005
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025

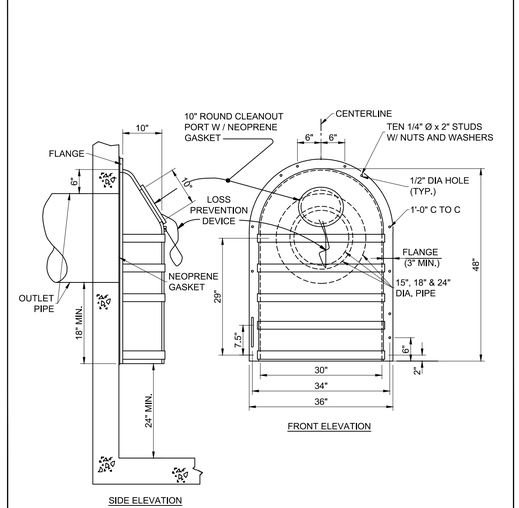


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

2016/09/21
SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 1 - SHEET 2

STRM No. STRM 006
Revised 2016/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 2

STRM No. STRM 007
Revised 2016/09/21

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY of FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER
IMPROVEMENTS

STANDARD DETAILS - SHEET 6

SHEET NO. DT-06
SHT # 134
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

NOTES:

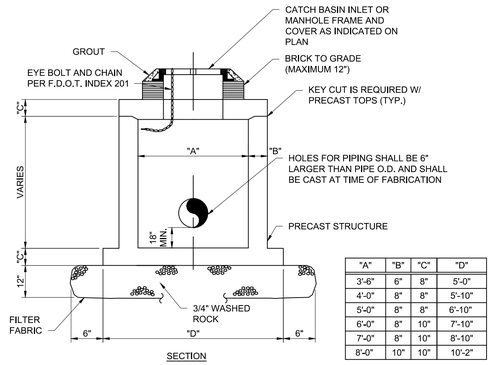
1. THE SKIMMER IS A HOODED COVER, MOUNTED OVER AN OUTLET IN A CATCHBASIN, THAT PREVENTS OIL AND FLOATING DEBRIS FROM EXITING THE BASIN. USE THIS SKIMMER IN CATCHBASINS WHERE THERE IS A NEED TO PREVENT OIL, DEBRIS OR OTHER FLOATING CONTAMINANTS FROM EXITING CATCHBASINS THROUGH OUTLET PIPES.
2. PLACE NEOPRENE GASKET MATERIAL BETWEEN THE SKIMMER AND THE CATCHBASIN AT ALL POINTS OF CONTACT. TRIM THE GASKET NEATLY TO EXTEND 1/2 INCH BEYOND THE JOINT ON ALL SIDES.
3. SKIMMER BAFFLE, CLEANOUT PIPE AND ANGLES SHALL BE PRIMARILY CONSTRUCTED OF EITHER GALVANIZED STEEL, ALUMINUM, POLYVINYL CHLORIDE, POLYETHYLENE, FIBERGLASS OR ACRYLONITRITE BUTADIENE STYRENE. ALL STEEL COMPONENTS, OTHER THAN STAINLESS STEEL, SHALL BE HOT-DIP GALVANIZED.
4. MOUNTING HARDWARE, HINGES AND LATCHES SHALL ALL BE 316 STAINLESS STEEL. LOSS PREVENTION DEVICE SHALL BE EITHER 316 STAINLESS STEEL CHAIN OR RIVETED NYLON STRAP.
5. MATERIAL USED IN CONSTRUCTION OF SKIMMER BODIES (BAFFLES) AND CLEANOUT PIPE SHALL COMPLY WITH FDOT STANDARD SPECIFICATION 943 FOR STEEL, 945 FOR ALUMINUM OR 948 FOR PLASTICS.
6. ALL COST FOR FURNISHING AND INSTALLING A SKIMMER SHALL BE INCLUDED IN THE COST OF THE BASIN IN WHICH IT IS INSTALLED.
7. PLASTIC SKIMMER SHALL CONTAIN A MINIMUM OF 1.5% BY WEIGHT OF CARBON BLACK FOR UV PROTECTION.
8. THE BACKS OF SKIMMERS MUST CONFORM TO THE SHAPE OF THE BASIN WALLS ON WHICH THEY ARE MOUNTED.
9. THE CLEANOUT PORT FOR THE TYPE 2 SKIMMER SHALL BE GASKETED, WITH EITHER A THREADED SCREW-IN LID OR A LID SECURED BY FOUR STAINLESS STEEL QUICK-RELEASE LATCHES.
10. TYPE II SKIMMER ARE TO BE USED ONLY WITH OUTLET PIPE DIAMETERS OF 15", 18" AND 24".

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SKIMMER FOR EXFILTRATION TRENCH OUTLET NOTES

STRM. No. STRM 008 — REVISED 2015/08/21

12082-MULTI-DETL Wednesday, July 09, 2025



SECTION

"A"	"B"	"C"	"D"
3'-6"	6"	8"	5'-0"
4'-0"	8"	8"	5'-10"
5'-0"	8"	8"	6'-10"
6'-0"	8"	10"	7'-10"
7'-0"	8"	10"	8'-10"
8'-0"	10"	10"	10'-2"

NOTES:

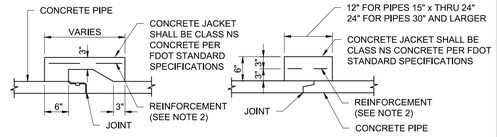
1. PRECAST STRUCTURE SHALL BE EITHER SQUARE OR ROUND AS INDICATED ON THE PLANS.
2. REINFORCING SHALL BE DESIGNED BY THE PRECAST MANUFACTURER TO COMPLY WITH FDOT INDEX 200.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S REVIEW. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
4. DESIGN STRUCTURE FOR H-20 TRUCK LOAD.
5. SHOP DRAWINGS SHALL INCLUDE CALCULATIONS DEMONSTRATING THAT STRUCTURE WILL RESIST FLOATION WHEN EMPTY AND SUBJECT TO GROUNDWATER TO TOP OF STRUCTURE.
6. CATCH BASINS SHALL HAVE USF 4155 FRAME AND 6209 GRATE.
7. MANHOLES SHALL HAVE USF 230 RING AND TYPE AA COVER WITH THE LETTERING "STORM SEWER" CAST IN THE COVER.

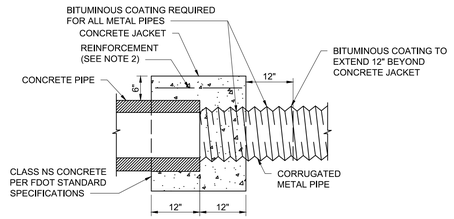
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PRECAST CIRCULAR & SQUARE DRAINAGE STRUCTURES

STRM. No. STRM 009 — REVISED 2017/07/14

12082-MULTI-DETL Wednesday, July 09, 2025





CONCRETE AND METAL PIPE JOINT

NOTES:

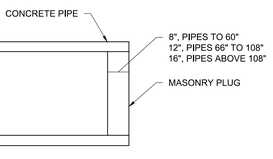
1. CONCRETE JACKET SHALL NOT BE USED TO JOIN METAL PIPES OF DISSIMILAR MATERIALS.
2. ANY WIRE MESH ARRANGEMENT WHICH PROVIDES 0.126 SQUARE INCHES OF STEEL AREA PER LINEAR FOOT BOTH WAYS MAY BE USED; PROVIDED THE WIRES ARE SPACED A MINIMUM OF 2" AND/OR A MAXIMUM OF 6" ON CENTERS.
3.
4. COST OF CONCRETE JACKET AND BITUMINOUS COATING SHALL BE INCLUDED IN THE COST OF THE PIPE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CONCRETE JACKET FOR STORMWATER PIPE

STRM. No. STRM 010 — REVISED 2017/07/24

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. THE COST OF PLUGGING PIPES TO BE INCLUDED IN CONTRACT UNIT PRICE FOR NEW PIPE.
2. EITHER BRICK MASONRY OR CONCRETE BRICK MAY BE USED FOR THE PLUG.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PIPE PLUG

STRM. No. STRM 011 — REVISED 2017/07/19

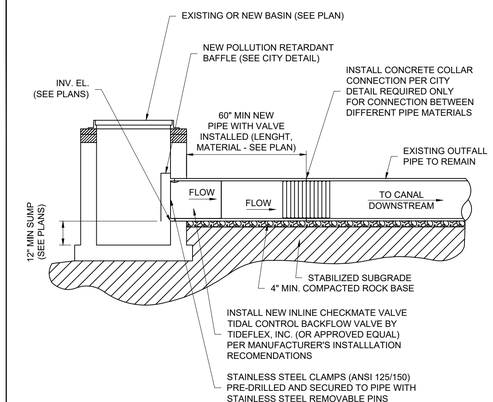
ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 85558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DATE: 07/09/2025
DRAWN BY: JLS
DESIGNED BY: SCALE: AS SHOWN
CHECKED BY: DECF JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025



CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

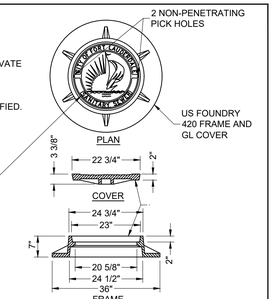
INLINE CHECKVALVE INSTALLATION FOR TIDAL FLOOD CONTROL

STRM. No. STRM 016 — REVISED 2017/07/28

12082-MULTI-DETL Wednesday, July 09, 2025

NOTES:

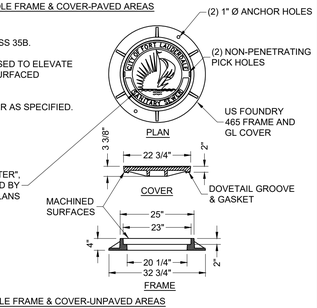
1. MATERIAL: ASTM-A48 GRAY IRON CLASS 35B.
2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING MANHOLE FRAMES TO RESURFACED GRADE (MAX 4" HEIGHT).
3. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.
4. LOAD RATING: AASHTO H-20



MANHOLE FRAME & COVER-PAVED AREAS

NOTES:

1. MATERIAL: ASTM-A48 GRAY IRON CLASS 35B.
2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING MANHOLE FRAMES TO RESURFACED GRADE (MAX 4" HEIGHT).
3. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.
4. LOAD RATING: AASHTO H-20



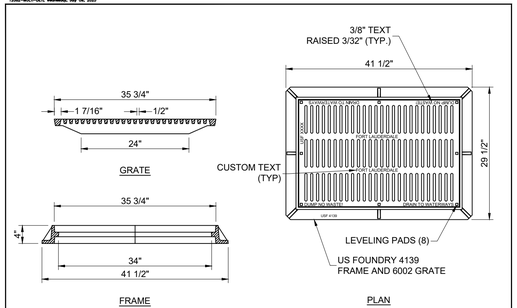
MANHOLE FRAME & COVER-UNPAVED AREAS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

MANHOLE FRAME AND COVER

STRM. No. STRM 017 — REVISED 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



23-3/4" x 35-3/4" RECTANGULAR GRATE

NOTES:

1. FRAME WEIGHT: 165 POUNDS
2. GRATE WEIGHT: 190 POUNDS
3. LOAD RATING: AASHTO H-20
4. OPEN AREA: 233 SQUARE INCHES
5. INSTALL DRAIN MARKER

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

ADA COMPLIANT CATCH BASIN FRAME AND GRATE 23" x 35"

STRM. No. STRM 019 — REVISED 2018/1/13

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 7

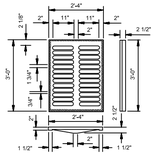
SHEET NO. DT-07 | SHT # 135

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

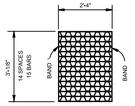
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



APPROX. WEIGHT 235 LBS

CAST IRON GRATE



STRAIGHT BARS 2" x 1/4"
RETICULINE BARS 1 1/4" x 3/16"
BANDS 2" x 1/4"
APPROX. WEIGHT 104 LBS

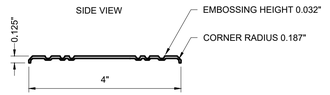
STEEL GRATE

NOTES

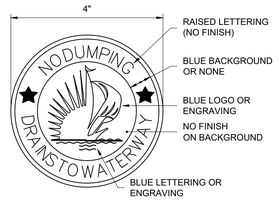
1. THESE INLETS ARE SUITABLE FOR BICYCLE TRAFFIC AND ARE TO BE USED IN DITCHES, MEDIANS AND OTHER AREAS SUBJECT TO INFREQUENT TRAFFIC LOADINGS BUT ARE NOT TO BE PLACED IN AREAS SUBJECT TO ANY HEAVY WHEEL LOADS. THESE INLETS MAY BE PLACED IN AREAS SUBJECT TO OCCASIONAL PEDESTRIAN TRAFFIC SUCH AS LANDSCAPED AREAS AND PAVEMENT AREAS WHERE PEDESTRIANS TRAFFIC SUCH AS LANDSCAPED AREAS AND PAVEMENT AREAS WHERE PEDESTRIANS CAN WALK AROUND THE INLET.
2. INLETS SUBJECT TO MINIMAL DEBRIS SHOULD BE CONSTRUCTED WITHOUT SLOTS. WHERE DEBRIS IS A PROBLEM INLETS SHOULD BE CONSTRUCTED WITH SLOTS. SLOTTED INLETS LOCATED WITHIN ROADWAY CLEAR ZONES AND AREAS SUBJECT TO PEDESTRIANS SHALL HAVE TRAVERSABLE SLOTS. TRAVERSABLE SLOTS SHALL NOT BE USED IN AREAS SUBJECT TO OCCASIONAL BICYCLE TRAFFIC.
3. STEEL GRATES ARE TO BE USED ON ALL INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED. STEEL GRATES ARE TO BE USED ON ALL INLETS WITH TRAVERSABLE SLOTS. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON INLETS WITHOUT SLOTS WHERE BICYCLE TRAFFIC IS NOT ANTICIPATED. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON ALL INLETS WITH NON-TRAVERSABLE SLOTS.
4. STEEL GRATES ARE REQUIRED ON INLETS WITH TRAVERSABLE SLOTS AND ON INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DITCH BOTTOM INLET TYPE C GRATES	STRM. No. STRM 020 DATE 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



TOP VIEW



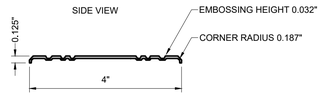
FINISH		
UV BAKED ENAMEL - 1 COLOR OPTION		
MATERIAL	THICKNESS	WEIGHT
304 ANNEALED STAINLESS STEEL	0.062"	0.218 LBS.

NOTES:

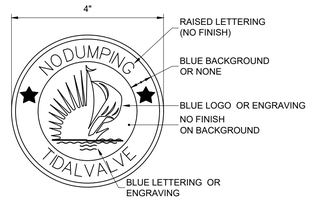
1. DRAIN MARKER SHALL BE BY LORDON, INC., OR EQUAL.
2. SECURE WITH SIKAFLEX IIFC ADHESIVE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DRAIN MARKER	STRM. No. STRM 021 DATE 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



TOP VIEW



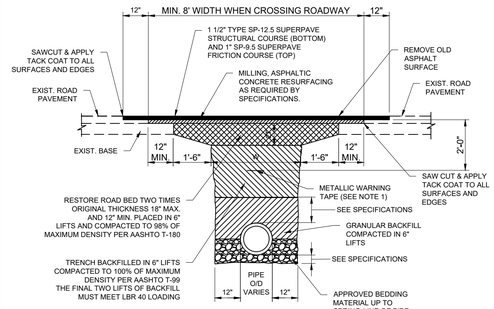
FINISH		
UV BAKED ENAMEL - 1 COLOR OPTION		
MATERIAL	THICKNESS	WEIGHT
304 ANNEALED STAINLESS STEEL	0.062"	0.218 LBS.

NOTES:

1. DRAIN MARKER SHALL BE BY LORDON, INC., OR EQUAL.
2. SECURE WITH SIKAFLEX IIFC ADHESIVE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TIDAL VALVE MARKER	STRM. No. STRM 022 DATE 2017/12/22

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE ABOVE MAIN. (SEE SPECIFICATION 2320 SECTION 3.6 FOR MARKING TYPE)
2. UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.

T=6" PARKING
T=8" RESIDENTIAL STREETS
T=10" MAJOR STREETS (4 LANE)
T=12" MAJOR STREETS (6 LANE)

2T=18" MAX. 12" MIN.

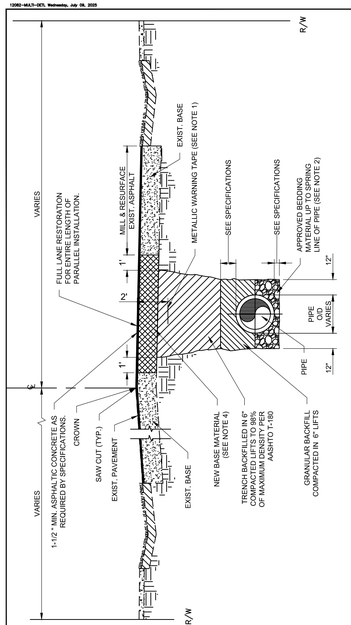
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL TRENCH AND PAVEMENT RESTORATION FOR TRANSVERSE PIPE CROSSING SHEET 1	STRM. No. ROAD 001 DATE 2017/03/11

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DESIGNED BY: DECF | CHECKED BY: JJM | DATE: 07/09/2025 | SCALE: AS SHOWN | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025

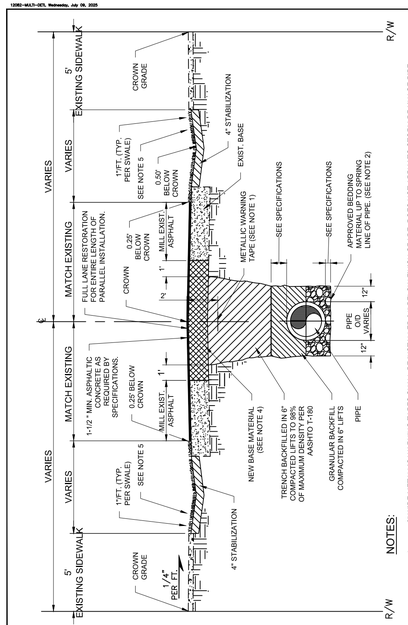


NOTES:

1. 2" WIDE METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE.
2. UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.
4. 12" MIN. LIMEROCK BASE PLACED IN 6" LAYERS AND COMPACTED TO 98% OF MAXIMUM DENSITY PER AASHTO T-180.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL ROAD SECTION, TYPICAL TRENCH AND TRENCH RESTORATION FOR PARALLEL PIPE TRENCH SHEET 2	STRM. No. ROAD 002 DATE 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

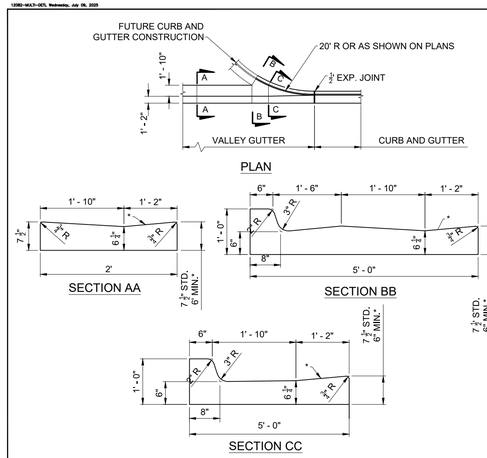


NOTES:

1. 2" WIDE METALLIC WARNING TAPES SHALL BE INSTALLED 24" BELOW FINISH GRADE. DOES NOT APPLY TO STORM DRAINAGE PIPE INSTALLATION.
2. UNLESS OTHERWISE SPECIFIED SELECTED MATERIAL SHALL BE FREE OF STONES LARGER THAN 3/8" DIA.
3. REPLACE ALL LANE MARKINGS AND REFLECTIVE MARKERS.
4. 12" MIN. LIMEROCK BASE PLACED IN 6" LAYERS AND COMPACTED TO 98% OF MAXIMUM DENSITY PER AASHTO T-180
5. BAHIA SOD, OR ST. AUGUSTINE TYPICAL FOR ALL SWALES (SODDED AREAS, ETC. REPLACE EXISTING IMPROVED SURFACE (e.g., ROCK OR ASPHALT PAVING TO MATCH EXISTING) IF ASPHALT, MINIMUM 1" ASPHALT OVER MINIMUM 6" COMPACTED LIMEROCK)

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TYPICAL ROAD SECTION, TYPICAL TRENCH, PAVEMENT AND SWALE RESTORATION FOR PARALLEL PIPE TRENCH SHEET 3	STRM. No. ROAD 003 DATE 2017/08/07

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.
2. ROTATE ENTIRE SECTION SO THAT GUTTER CROSS SLOPE MATCHES SLOPE OF ADJACENT CIRCULATING ROADWAY PAVEMENT.
3. FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT. FOR DETAILS DEPICTING USAGE ADJACENT TO FLEXIBLE PAVEMENT, SEE SHEET 2. EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURB & GUTTER AND CONCRETE PAVEMENT ONLY, SEE SHEET 2.
4. 4" CURB PAD (LBR 100, 98% COMPACTION T-180) TO BE PLACED UNDER CURB AND GUTTER, AND EXTEND 6" BEYOND OUTSIDE EDGE OF CURB. SEE SPECIFICATIONS FOR MATERIAL

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER VALLEY GUTTER SHEET 1	STRM. No. ROAD 005 DATE 2017/03/11

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS			
NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 8

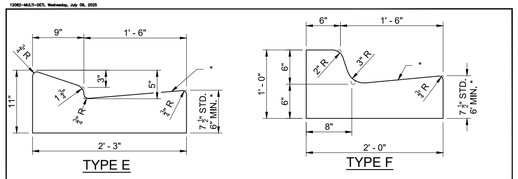
SHEET NO. DT-08 | SHT # 136

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

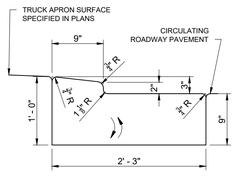
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



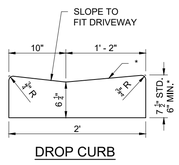
TYPE E

TYPE F

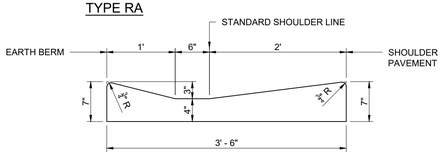


TRAFFIC BEARING SECTION FOR USE IN ROUNDABOUT CENTRAL ISLAND CONSTRUCTION

TYPE RA



DROP CURB



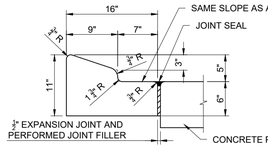
SHOULDER GUTTER

NOTE:

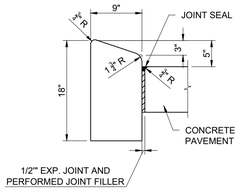
4" CURB PAD (LBR 100, 98% COMPACTION T-180) TO BE PLACED UNDER CURB AND GUTTER, AND EXTEND 6" BEYOND OUTSIDE EDGE OF CURB. SEE SPECIFICATIONS FOR MATERIAL

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER TYPE E, TYPE F, TYPE RA, DROP CURB, AND SHOULDER GUTTER SHEET 2	MISC. NO. ROAD 006 REVISED 2017/03/11

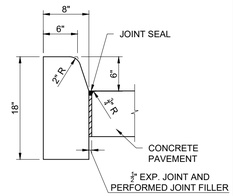
12082-MULTI-DETL Wednesday, July 09, 2025



TYPE A



TYPE B



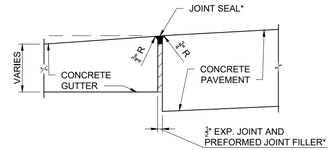
TYPE D

NOTES:

1. FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT, CONCRETE SHOWN. EXPANSION JOINT, PREFORMED JOINT FILLER AND JOINT SEAL ARE REQUIRED BETWEEN CURBS AND CONCRETE PAVEMENT ONLY.
2. 4" CURB PAD (LBR 100, 98% COMPACTION T-180) TO BE PLACED UNDER CURB AND GUTTER, AND EXTEND 6" BEYOND OUTSIDE EDGE OF CURB. SEE SPECIFICATIONS FOR MATERIAL

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER TYPE A, TYPE B, AND TYPE D SHEET 3	MISC. NO. ROAD 007 REVISED 2018/06/04

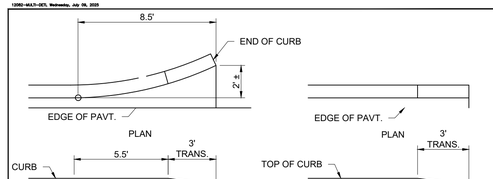
12082-MULTI-DETL Wednesday, July 09, 2025



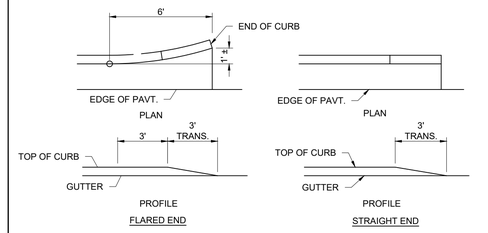
* APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT, LOW SIDE SHOWN.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER EXPANSION JOINT BETWEEN GUTTER AND CONCRETE PAVEMENT SHEET 4	MISC. NO. ROAD 008 REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



TYPE A



TYPES E & F

NOTES:

1. FOR CURB, GUTTER AND CURB & GUTTER PROVIDE ½" - ¾" CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS.
2. ENDS OF CURBS TYPES B AND D SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3'.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CONCRETE CURB AND GUTTER CURB AND GUTTER ENDINGS SHEET 5	MISC. NO. ROAD 009 REVISED 2018/06/04

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No. 85538
DATE:

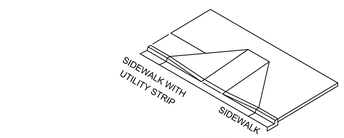
TEL: 954.730.0707
FAX: 954.730.2030

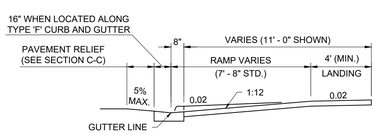
DRAWN BY: JLS
DESIGNED BY: DECF
DATE: 07/09/2025
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING

101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025





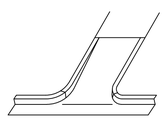
SECTION A-A

SECTION THROUGH RAMP AND LANDING (UNRESTRICTED CONDITIONS)

RAMP AND LANDING DEPTHS NOT RESTRICTED

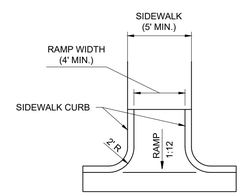
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 1	MISC. NO. ROAD 014 REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW

CR-E



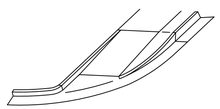
PLAN VIEW

CR-A

DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

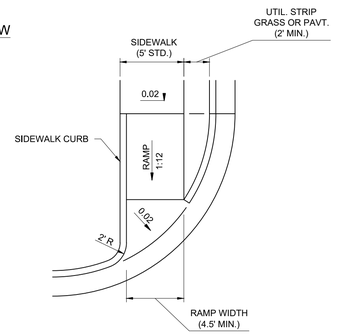
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 5	MISC. NO. ROAD 018 REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW

CR-F



PLAN VIEW

CR-F

DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	SIDEWALK CURB RAMPS SHEET 6	MISC. NO. ROAD 019 REVISED 2018/06/04

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 9

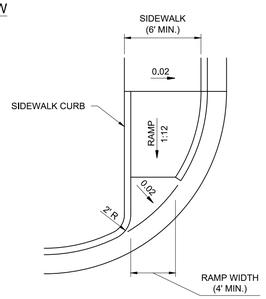
SHEET NO. DT-09
SHT # 137
TOTAL: 233

CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

PICTORIAL VIEW

CR-G



PLAN VIEW

CR-G

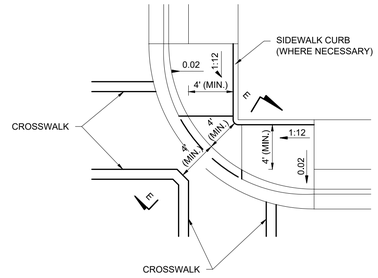
DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 7

STD. NO.
ROAD
020
REVISED
2018/06/04

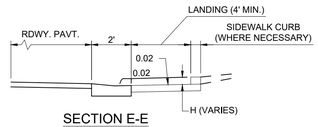
12082-MULTI-DETL Wednesday, July 09, 2025



PLAN VIEW

CR-F

NOTE: CROSSWALK WIDTH AND CONFIGURATION VARY; MUST CONFORM TO INDEX NO. 17344 AND 17346. 15' RADIUS CURVE SHOWN FOR CR-L.



SECTION E-E

SECTION THROUGH LANDING
(RESTRICTED CONDITIONS)

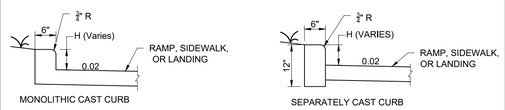
SIDEWALK CURB RAMPS WHERE RAMP AND LANDING DEPTHS ARE RESTRICTED

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

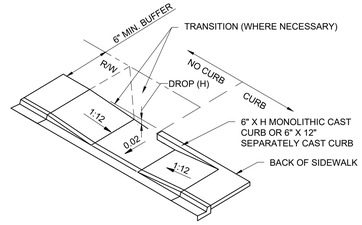
SIDEWALK CURB RAMPS
SHEET 10

STD. NO.
ROAD
023
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



SIDEWALK CURB OPTIONS



CONSTRUCT SIDEWALK CURB IN CUT SECTIONS

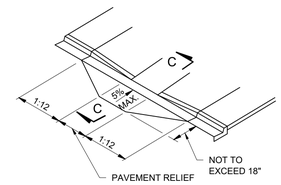
SIDEWALK CURB

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

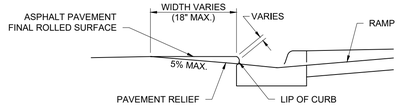
SIDEWALK CURB RAMPS
SHEET 11

STD. NO.
ROAD
024
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW



NOTE: REMOVE ELEVATED PAVEMENT BY SPADING AND ROLLING; SMOOTH MILLING; OR GRINDING

SECTION C-C

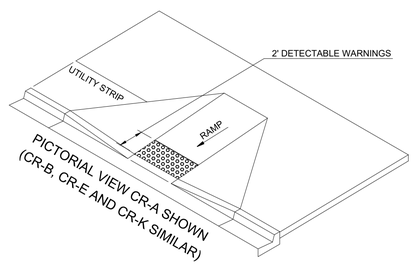
PAVEMENT RELIEF AT LIP OF CURB

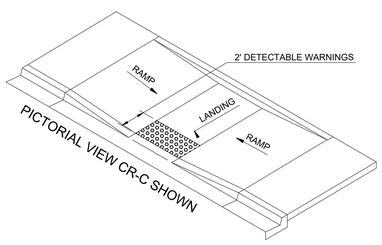
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 12

STD. NO.
ROAD
025
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025





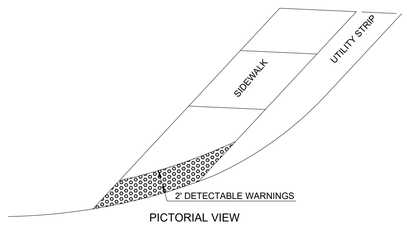
TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

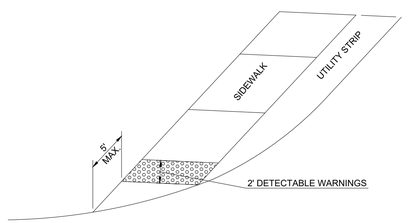
SIDEWALK CURB RAMPS
SHEET 15

STD. NO.
ROAD
028
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW
FLUSH SHOULDER
(OPTION A)



PICTORIAL VIEW
FLUSH SHOULDER
(OPTION B)

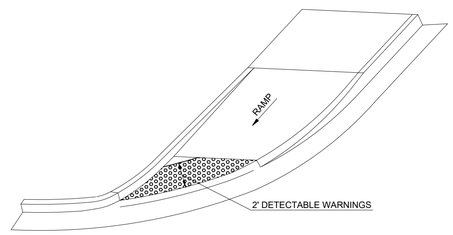
TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

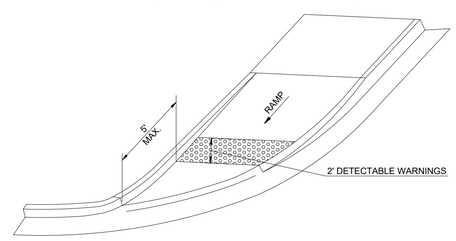
SIDEWALK CURB RAMPS
SHEET 16

STD. NO.
ROAD
029
REVISED
2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



PICTORIAL VIEW CR-G SHOWN
(OPTION A) (CR-F AND CR-H SIMILAR)



PICTORIAL VIEW CR-G SHOWN
(OPTION B) (CR-F AND CR-H SIMILAR)

TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 17

STD. NO.
ROAD
030
REVISED
2018/06/04

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No. 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: SCALE: AS SHOWN
DECF
CHECKED BY: JJM
DATE: 07/09/2025
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

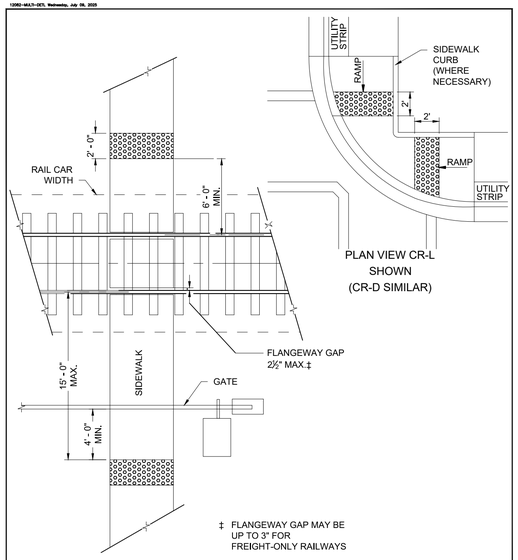
ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER
IMPROVEMENTS

STANDARD DETAILS - SHEET 10

SHEET NO. DT-10
SHT # 138
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	SIDEWALK CURB RAMPS SHEET 19	STD. NO. ROAD 032
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

TABLE OF DETECTABLE WARNINGS

CURB RAMP TYPE	CURB RADIUS (FT)	TOTAL AREA (SF)
CR-A	N/A	8
CR-B	N/A	8
CR-C	N/A	8
CR-D	25	11
CR-E	N/A	8
CR-F	10	9
	20	11
	25	13
	30	14
CR-G	10	10
	20	11
	25	12
	30	14
CR-H	20	8
	25	8
	30	8
CR-K	N/A	8
CR-L	10	18
	15	13
FLUSH SHOULDER OPTION A	10	11
	20	14
	25	15
	30	17
	40	19
	50	21
OPTION B	10	10
	20	10
	25	10

NOTE:

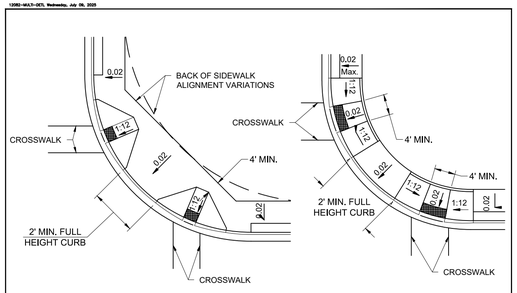
DUE TO CONSTRUCTION APPLICATIONS, CR-L IS THE ONLY CURB RAMP FOR WHICH A DETECTABLE WARNING QUANTITY WAS CALCULATED USING A CURB RADIUS OF 15'.

FOR FLUSH SHOULDER OPTIONS WITH 5' SIDEWALKS, THE BACK OF SIDEWALK IS MEASURED AT 10' FROM THE EDGE OF TRAVELED WAY.

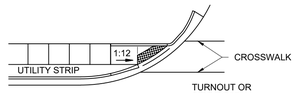
AREAS OF DETECTABLE WARNINGS FOR SIDEWALK CURB RAMP AND FLUSH SHOULDER APPLICATIONS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	TABLE OF DETECTABLE WARNINGS SHEET 20	STD. NO. ROAD 033
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



RADIAL SIDEWALK RAMPS



LINEAR SIDEWALK RAMPS

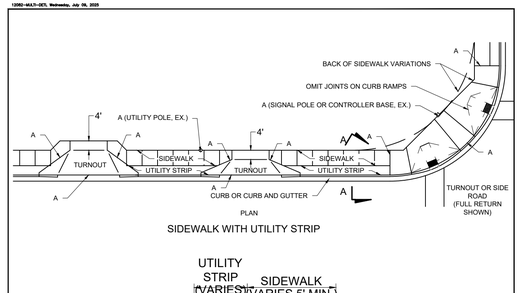
NOTES:

1. WHERE CROSSWALK MARKINGS ARE USED, RAMPS SHALL FALL WITHIN THE CROSSWALK LIMITS. A CLEAR SPACE OF 48" MINIMUM IS REQUIRED AT THE BOTTOM OF THE RAMP WITHIN A MARKED CROSSWALK. IF CROSSWALK MARKINGS ARE NOT PRESENT, A CLEAR SPACE OF 48" MINIMUM IS REQUIRED AT THE BOTTOM OF THE RAMP OUTSIDE OF ACTIVE TRAVEL LANES.
2. CROSSWALK WIDTHS AND CONFIGURATIONS VARY; MUST CONFORM TO INDEX NO. 17344 AND 17346.

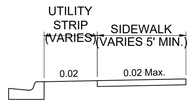
TYPICAL PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	TYPICAL PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS SHEET 21	STD. NO. ROAD 034
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



SIDEWALK WITH UTILITY STRIP



SECTION AA

NOTES FOR CONCRETE SIDEWALK ON CURBED ROADWAYS

1. CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SPECIFICATION SECTION 522.
2. INCLUDE DETECTABLE WARNINGS ON SIDEWALK CURB RAMPS AND CONSTRUCT IN ACCORDANCE WITH INDEX NO. 304.
3. DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT URBAN FLARED TURNOUTS.
4. BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN ½".
5. FOR TURNOUTS SEE INDEX NO. 515.
6. CONSTRUCT SIDEWALKS WITH 1' THICK EDGE BEAM THROUGH THE LIMITS OF ANY SURFACE MOUNTED PEDESTRIAN/BICYCLE PICKET RAILING OR PIPE GUIDERAIL SHOWN IN THE PLANS.

CONCRETE SIDEWALK ON CURBED ROADWAYS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	CONCRETE SIDEWALK SHEET 1	STD. NO. ROAD 035
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

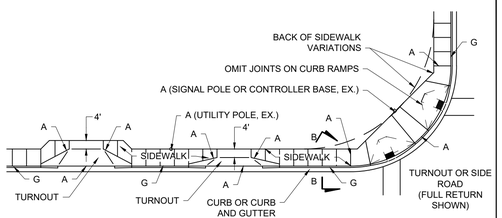
ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

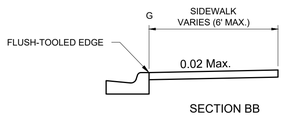
DATE: 07/09/2025
DESIGNED BY: JLS
DRAWN BY: DECF
CHECKED BY: JJM
SCALE: AS SHOWN
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

12082-MULTI-DETL Wednesday, July 09, 2025



SIDEWALK WITHOUT UTILITY STRIP



SECTION BB

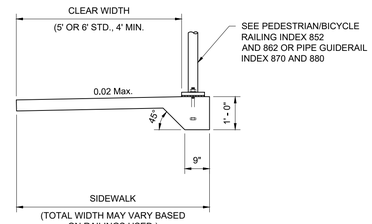
NOTES FOR CONCRETE SIDEWALK ON CURBED ROADWAYS

1. CONSTRUCT SIDEWALKS IN ACCORDANCE WITH SPECIFICATION SECTION 522.
2. INCLUDE DETECTABLE WARNINGS ON SIDEWALK CURB RAMPS AND CONSTRUCT IN ACCORDANCE WITH INDEX NO. 304.
3. DETECTABLE WARNINGS ARE NOT REQUIRED WHERE SIDEWALKS INTERSECT URBAN FLARED TURNOUTS.
4. BOND BREAKER MATERIAL CAN BE ANY IMPERMEABLE COATED OR SHEET MEMBRANE OR PREFORMED MATERIAL HAVING A THICKNESS OF NOT LESS THAN 6 MILS NOR MORE THAN ½".
5. FOR TURNOUTS SEE INDEX NO. 515.
6. CONSTRUCT SIDEWALKS WITH 1' THICK EDGE BEAM THROUGH THE LIMITS OF ANY SURFACE MOUNTED PEDESTRIAN/BICYCLE PICKET RAILING OR PIPE GUIDERAIL SHOWN IN THE PLANS.

CONCRETE SIDEWALK ON CURBED ROADWAYS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	CONCRETE SIDEWALK SHEET 2	STD. NO. ROAD 036
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025



SIDEWALK WITH EDGE BEAM FOR SURFACE MOUNTED RAILINGS

SIDEWALK WITH EDGE BEAM FOR SURFACE MOUNTED RAILINGS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	CONCRETE SIDEWALK SHEET 3	STD. NO. ROAD 037
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

12082-MULTI-DETL Wednesday, July 09, 2025

BASE THICKNESS AND OPTION CODES

BASE GROUP	STRUCTURAL RANGE	BASE GROUP PAY ITEM NUMBER	Base Options: LIMEROCK, LBR 100	CEMENTED COQUINA, LBR 100	SHELL ROCK, LBR 100	BANK RUN SHELL, LBR 100	RECYCLED CONCRETE AGGREGATE, LBR 100 **	GRADED AGGREGATE BASE, LBR 100	TYPE B-12.5	B-12.5 AND 4" GRANULAR MIN. BASE, LBR 100	RAP BASE
			STRUCTURAL NUMBER (PER. IN.)								
			(0.18)	(0.18)	(0.18)	(0.18)	(0.18)	(0.15)	(0.30)	(0.30 & 0.15)	(NA)
1	0.65-0.75	701	4"	4"	4"	4"	4"	4½"	4"		□ 5"
2	0.80-0.90	702	5"	5"	5"	5"	5"	5½"	4"		
3	0.95-1.05	703	5½"	5½"	5½"	5½"	5½"	6½"	4"		
4	1.05-1.15	704	6"	6"	6"	6"	6"	7½"	4"		
5	1.25-1.35	705	7"	7"	7"	7"	7"	8½"	4½"		
6	1.35-1.50	706	8"	8"	8"	8"	8"	9"	5"		
7	1.50-1.65	707	8½"	8½"	8½"	8½"	8½"	10"	5½"		
8	1.65-1.75	708	9½"	9½"	9½"	9½"	9½"	11"	5½"		
9	1.75-1.85	709	10"	10"	10"	10"	10"	12"	6"	4"	
10	1.90-2.00	710	11"	11"	11"	11"	11"	Ø 13"	6½"	4½"	
11	2.05-2.15	711	12"	12"	12"	12"	12"	Ø 14"	7"	5"	
12	2.20-2.30	712	12½"	12½"	12½"	12½"	12½"		7½"	5½"	
13	2.35-2.45	713	Ø 13½"	Ø 13½"	Ø 13½"	Ø 13½"	Ø 13½"		8"	6"	
14	2.45-2.55	714	Ø 14"	Ø 14"	Ø 14"	Ø 14"	Ø 14"		8½"	6½"	
15	2.60-2.70	715							9"	7"	

* FOR GRANULAR SUBBASE, THE CONSTRUCTION OF BOTH THE SUBBASE AND TYPE B-12.5 WILL BE BID AND USED AS OPTIONAL BASE. GRANULAR SUBBASES INCLUDE LIMEROCK, CEMENTED COQUINA, SHELL ROCK, BANK RUN SHELL, RECYCLED CONCRETE AGGREGATE AND GRADED AGGREGATE BASE. THE BASE THICKNESS SHOWN IS TYPE B-12.5. ALL SUBBASE THICKNESSES ARE 4" MINIMUM.

** FOR RESTRICTIONS ON THE USE OF RECYCLED CONCRETE AGGREGATE - SEE SPECIFICATIONS SECTION 911.

Ø TO BE USED FOR WIDENING, THREE FEET OR LESS.

BASED ON MINIMUM PRACTICAL THICKNESSES.

□ FOR RESTRICTIONS ON THE USE OF RAP BASE - SEE STANDARD SPECIFICATIONS.

GENERAL NOTES

1. WHERE BASE OPTIONS ARE SPECIFIED IN THE PLANS, ONLY THOSE OPTIONS MAY BE BID AND USED.
2. IN SITUATIONS WHERE THE DESIGNER REQUIRES THE USE OF A SINGLE BASE OPTION, AS SHOWN IN THE PLANS, BID AND USE AS OPTIONAL BASE.

OPTIONAL BASE GROUP & STRUCTURAL NUMBERS

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS	OPTIONAL BASE GROUP & STRUCTURAL NUMBERS	STD. NO. ROAD 038
100 North Andrews Avenue, Fort Lauderdale, Florida 33301		REVISED 2018/06/04

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

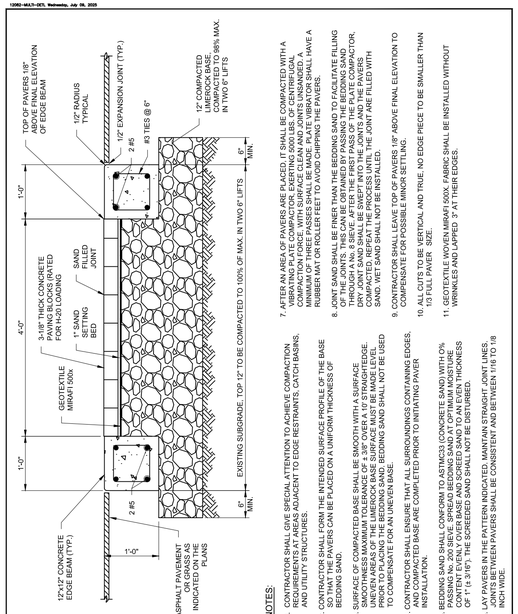
ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 11

SHEET NO. DT-11
SHT # 139
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

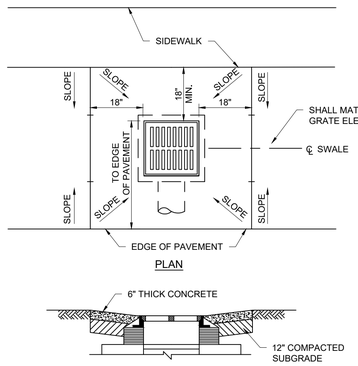


NOTES:

1. CONTRACTOR SHALL GIVE SPECIAL ATTENTION TO ACHIEVE COMPACTION REQUIREMENTS AT AREAS ADJACENT TO EDGE RESTRAINTS, CATCH BASINS, AND UTILITY STRUCTURES.
2. CONTRACTOR SHALL FORM THE INTENDED SURFACE PROFILE OF THE BASE SO THAT THE PAVERS CAN BE PLACED ON A UNIFORM THICKNESS OF BEDDING SAND.
3. SURFACE OF COMPACTED BASE SHALL BE SMOOTH WITH A SURFACE SMOOTHNESS MAXIMUM TOLERANCE OF ± 3/8" OVER A 10' STRAIGHTEDGE. HARDENED CONCRETE, ASPHALT BASE OR SUBGRADE MUST BE CLEAN AND DRY PRIOR TO PLACING THE BEDDING SAND. BEDDING SAND SHALL NOT BE USED TO COMPENSATE FOR AN UNEVEN BASE.
4. CONTRACTOR SHALL ENSURE THAT ALL SURROUNDINGS CONTAINING EDGES, CURBS AND PAVERS ARE COMPLETED PRIOR TO INITIATING PAVER INSTALLATION.
5. BEDDING SAND SHALL CONFORM TO ASTM C33 (CONCRETE SAND) WITH 0% PASSING No. 200 SIEVE, SPREAD BEDDING SAND AT OPTIMUM MOISTURE CONTENT IN ONE LAYER AND SCREED SAND TO A UNIFORM THICKNESS OF 1" (25 MM). SCREED BEDDING SAND SHALL NOT BE COMPRESSED.
6. LAY PAVERS IN THE PATTERN INDICATED, MAINTAIN STRAIGHT JOINT LINES. JOINTS BETWEEN PAVERS SHALL BE CONSISTENT AND BETWEEN 1/16 TO 1/8 INCH WIDE.
7. AFTER AN AREA OF PAVERS ARE PLACED, IT SHALL BE COMPACTED WITH A VIBRATING PLATE COMPACTOR, EXERTING 3000 LBS. OF CENTRIFUGAL COMPACTION FORCE AND HAVING A COVERAGE RATE OF 5000 SQ. FT. PER HOUR. A MINIMUM OF THREE PASSES SHALL BE MADE. PLATE VIBRATOR SHALL HAVE A RUBBER MAT OR ROLLER FEET TO AVOID CHIPPING THE PAVERS.
8. JOINT SAND SHALL BE FINER THAN THE BEDDING SAND TO FACILITATE FILLING OF THE JOINTS. THOROUGHLY SWEEP SAND INTO JOINTS. MAKE TWO PASSES THROUGH A No. 8 SIEVE. AFTER THE FIRST PASS OF THE PLATE COMPACTOR, SWEEP ADDITIONAL JOINT SAND INTO THE JOINTS. FILL JOINTS AND COMPACTED. REPEAT THE PROCESS UNTIL THE JOINTS ARE FILLED WITH SAND. WET SAND SHALL NOT BE INSTALLED.
9. CONTRACTOR SHALL LEAVE TOP OF PAVERS 1/8" ABOVE FINAL ELEVATION TO COMPENSATE FOR POSSIBLE MINOR SETTLING.
10. ALL CUTS TO BE VERTICAL AND TRUE. NO EDGE PIECE TO BE SMALLER THAN 1/3 FULL PAVER SIZE.
11. GEOTEXTILE WOVEN MIRAFI 500X FABRIC SHALL BE INSTALLED WITHOUT WRINKLES AND LAPPED 3' AT THEIR EDGES.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	DECORATIVE PAVERS IN ROADWAY	STD. NO. ROAD 039 REVISION 2018/08/04

12082-MULTI-DETL Wednesday, July 09, 2025

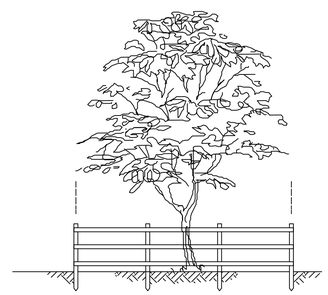


NOTES

1. PAVING AROUND CATCH BASIN TO BE 6" THICK CONCRETE ON COMPACTED SUBGRADE
2. PAVE 18" WIDE (MIN.) APRON ON (3) SIDES. EXTEND FOURTH SIDE TO EDGE OF PAVEMENT.
3. IF DISTANCE FROM BACK OF CATCH BASIN TO FRONT OF SIDEWALK IS 3.0' OR LESS, EXTEND APRON TO FRONT OF SIDEWALK.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	CATCH BASIN APRON DETAIL CONCRETE SHEET 1	STD. NO. ROAD 040 REVISION 2018/08/04

12082-MULTI-DETL Wednesday, July 09, 2025

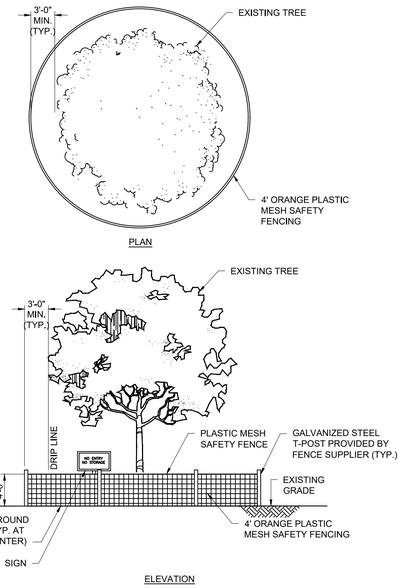


NOTES:

1. BEFORE SITE CLEARING BEGINS PROVIDE NECESSARY MEASURES TO ASSURE SURVIVAL OF VEGETATION.
2. REMOVE BARRIERS AND RESTORE SURFACES PRIOR TO FINAL CLOSEOUT.

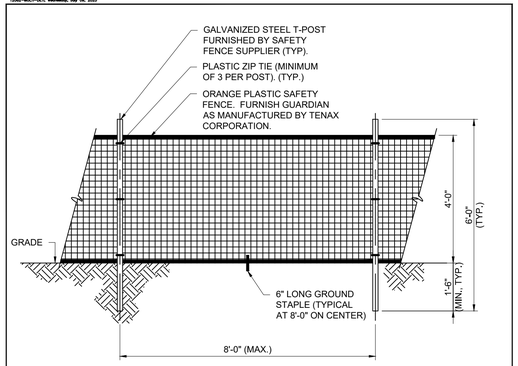
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TREE PROTECTION BARRIER	STD. NO. ROAD 101 REVISION 2017/07/17

12082-MULTI-DETL Wednesday, July 09, 2025



CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TREE PROTECTION FENCE	STD. NO. ROAD 102 REVISION 2017/07/24

12082-MULTI-DETL Wednesday, July 09, 2025

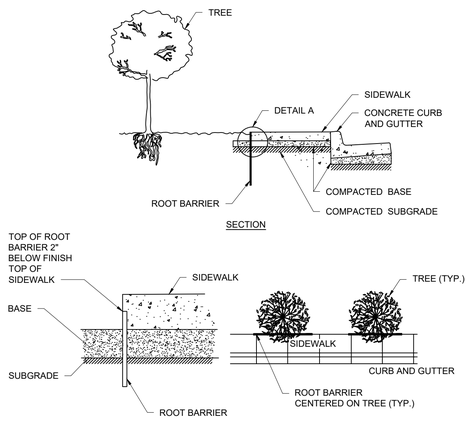


NOTES:

1. REBAR SHALL NOT BE USED FOR SUPPORTING THE FENCE.
2. LOOP THE ZIP TIES THROUGH THE AVAILABLE HOLES OR "TEETH" IN THE POST TO PREVENT THE FENCE FROM SLIDING DOWN THE POST.
3. PLASTIC ZIP TIES SHALL BE AS FOLLOWS:
   A. MINIMUM WIDTH = 0.3 INCHES.
   B. LENGTH = AS REQUIRED.
   C. COLOR = BLACK WITH UV STABILIZER.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	PLASTIC SAFETY FENCE	STD. NO. ROAD 103 REVISION 2018/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. ROOT BARRIERS SHALL BE INSTALLED WHEN ROOT BALL IS WITHIN 8'-0" OF SIDEWALK OR AS INDICATED ON THE PLANS.
2. ROOT BARRIER SHALL BE UB 24-2 BY DEEPROOT, OR EQUAL. SUBMIT SHOP DRAWING.
3. TRENCH TO APPROPRIATE DEPTH FOR INSTALLATION OF ROOT BARRIER SO THAT TOP OF BARRIER IS 2" BELOW TOP OF SIDEWALK .
4. PLACE ROOT BARRIER IN TRENCH, VERTICAL RIBS MUST FACE TOWARD TREE ROOTS.
5. BACKFILL AND COMPACT.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	ROOT BARRIER	STD. NO. ROAD 104 REVISION 2018/09/21

12082-MULTI-DETL Wednesday, July 09, 2025

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (NOTE 1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (NOTE 2)	WATER MAIN — 3 FT. MINIMUM — OTHER PIPE	WATER MAIN — 12 INCHES IS THE MINIMUM, EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND12 INCHES IS PREFERRED — OTHER PIPE	NOTE 4 — WATER MAIN — JOINT (TYP.)
VACUUM SANITARY SEWER	WATER MAIN — 10 FT PREFERRED, 3 FT. MINIMUM — OTHER PIPE	WATER MAIN — 12 INCHES IS PREFERRED 6 INCHES MINIMUM — OTHER PIPE	NOTE 4 — WATER MAIN
GRAVITY SANITARY SEWER, (NOTE 3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER	WATER MAIN — 10 FT PREFERRED 6 FT. MINIMUM — OTHER PIPE	WATER MAIN — 12 INCHES IS THE MINIMUM, EXCEPT FOR GRAVITY SEWER, THEN 6 INCHES IS THE MINIMUM AND 12 INCHES IS PREFERRED — OTHER PIPE	NOTE 4 — WATER MAIN — OTHER PIPE (TYP.)
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—

NOTES:

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATE JOINT LOCATIONS ALLOWED UNDER FAC 62-555.314 WILL ONLY BE ALLOWED BY THE ENGINEER ON A CASE-BY-CASE BASIS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	WATER MAIN SEPARATION	STD. NO. WATR 001 REVISION 2016/09/01

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65538
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY of FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

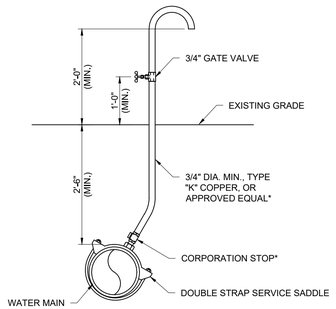
REVISIONS NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
STANDARD DETAILS - SHEET 12

SHEET NO. DT-12
SHT # 140
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025



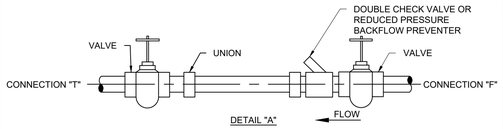
* NOTE: AFTER TESTS REMOVE 3/4" TUBING AND INSTALL PLUG ON CORPORATION STOP.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

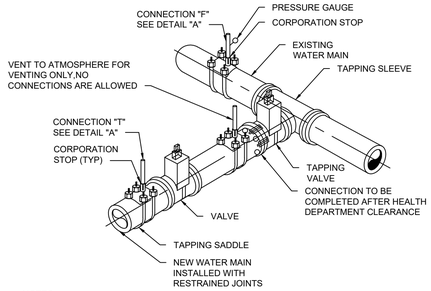
BACT SAMPLE POINT - TEMPORARY

STD. NO. WATR 002
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



DETAIL "A"



NOTES:

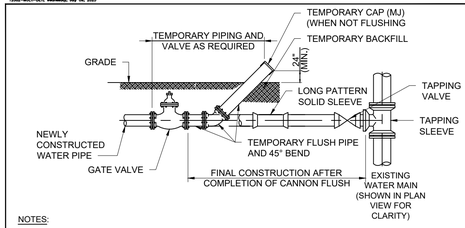
1. REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON EXISTING MAIN AFTER FILLING AND FLUSHING OF NEW LINE.
2. DO NOT REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON NEW MAIN UNTIL ALL TESTING HAS BEEN CLEARED BY HEALTH DEPARTMENT.
3. CLOSE CORPORATION STOPS AND PLUG/CAP WITH LEAD-FREE BRASS FITTINGS AFTER SAMPLING IS COMPLETED.
4. CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

FILLING AND FLUSHING CONNECTION

STD. NO. WATR 004
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTES:

1. FLUSHING LOCATIONS ARE TO BE PROPOSED BY CONTRACTOR AND APPROVED BY ENGINEER OF RECORD.
2. UPON COMPLETION OF THE PIPE INSTALLATION FOR ANY SECTION, THE MAINS SHALL BE CANNON FLUSHED TO REMOVE DIRT AND ANY OTHER FOREIGN MATTER.
3. INSTALL A TEMPORARY 45° BEND, VALVE AND ASSOCIATED TEMPORARY PIPING AS SHOWN TO DIRECT THE FLUSHING WATER AWAY FROM THE IMMEDIATE WORK AREA AND EXERCISE DUE CARE SO AS TO ENSURE THAT THE WATER USED IN FLUSHING DOES NOT CAUSE A NUISANCE OR INFLICT PROPERTY DAMAGE.
4. BENDS AND PIPING SHALL BE THE SAME SIZE OR LARGER AS THE LINE BEING FLUSHED.
5. PRIOR TO THE ACTUAL LINE FLUSHING OPERATION THE CONTRACTOR SHALL PROPERLY NOTIFY OWNER'S INSPECTOR OF SUCH INTENDED WATER USE.
6. NO EXISTING VALVES SHALL BE OPERATED, EXCEPT BY AUTHORIZED OWNER PERSONNEL.
7. FLUSHING SHALL NOT BE ACCOMPLISHED WITHOUT THE ACTUAL PRESENCE OF THE OWNER'S INSPECTOR.
8. AFTER THE LINE UNDER CONSTRUCTION HAS BEEN SUCCESSFULLY FLUSHED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY PIPING ARRANGEMENT AND PROCEED WITH THE REMAINING CONSTRUCTION AS SPECIFIED.
9. ALL PIPING SHALL BE RESTRAINED.
10. CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.
11. CONTRACTOR IS CAUTIONED THAT GOVERNING AGENCIES OR UTILITIES MAY HAVE REGULATIONS LIMITING OR PROHIBITING DISCHARGE INTO SEWERS, SURFACE WATERS, CANALS, DITCHES AND OTHER CONVEYANCES/RETENTION AREAS. ALL COMPLIANCE WITH GOVERNING AGENCY REQUIREMENTS (INCLUDING PERMITTING, IF REQUIRED) IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
12. CANNON FLUSHING TO PROCEED AFTER HEALTH DEPARTMENT CLEARANCE IS RECEIVED.

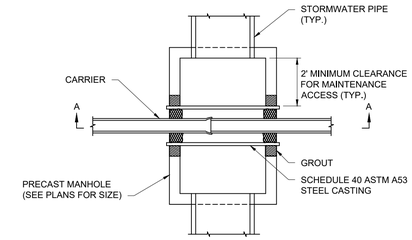
FLUSHING CONNECTION
NOT TO SCALE

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

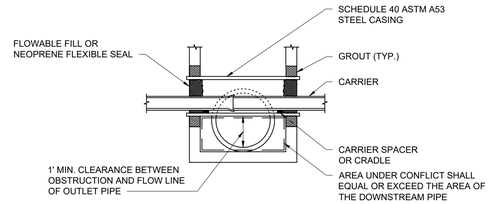
CANNON FLUSHING

STD. NO. WATR 005
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



PLAN



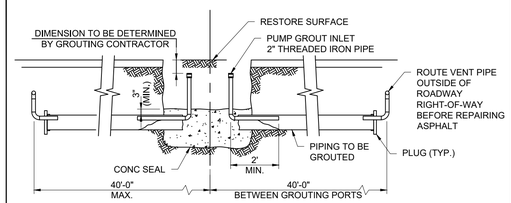
SECTION A-A

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

CONFLICT MANHOLE

STD. NO. WATR 011
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTE:

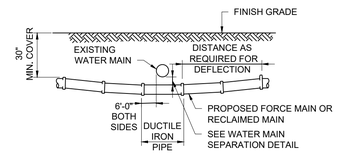
1. PROVIDE PLUGS, CORPORATION STOPS AND PIPING AS REQUIRED TO REMOVE AIR FROM THE ABANDONED PIPELINES WHILE GROUTING.

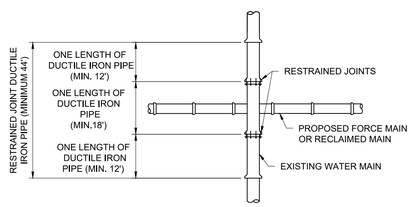
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PIPE GROUTING

STD. NO. WATR 012
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025





NOTE:

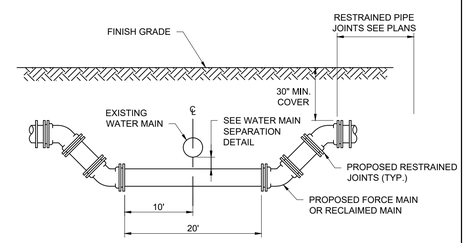
1. JOINTS SHALL NOT BE DEFLECTED MORE THAN 50% OF MANUFACTURER'S RECOMMENDED DEFLECTION.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

UTILITY CROSSING DEFLECTION TYPE

STD. NO. WATR 013
EFFECTIVE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



NOTE:

1. WHEREVER POSSIBLE, DEFLECTION OF THE PIPE (PER THE DETAIL TITLED "UTILITY CROSSING - DEFLECTION TYPE") SHALL BE USED TO AVOID EXISTING OBSTRUCTIONS. THIS DETAIL SHALL BE USED ONLY WHEN APPROVED BY ENGINEER.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

UTILITY CROSSING FITTING TYPE

STD. NO. WATR 014
EFFECTIVE 2015/09/21

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 85558
DATE:

TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

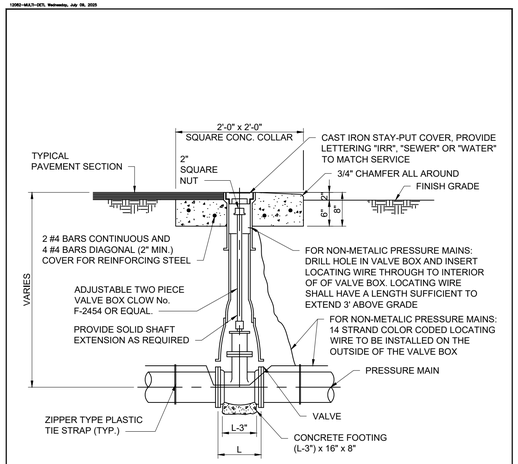
ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 13

SHEET NO. DT-13
SHT # 141
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

12082-MULTI-DETL Wednesday, July 09, 2025

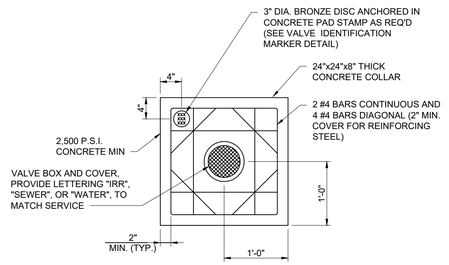


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE BOX

WATR. DR. WATR 015
DATE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025

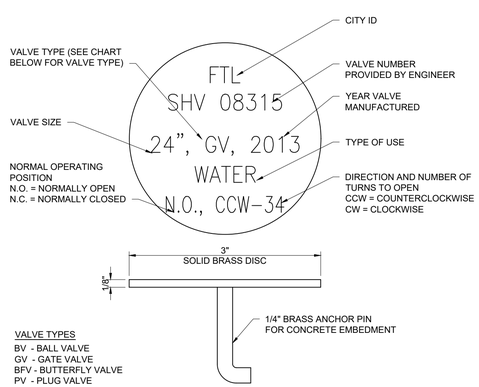


CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE BOX COLLAR

WATR. DR. WATR 016
DATE 2015/09/21

12082-MULTI-DETL Wednesday, July 09, 2025



VALVE TYPES
BV - BALL VALVE
GV - GATE VALVE
BFV - BUTTERFLY VALVE
PV - PLUG VALVE

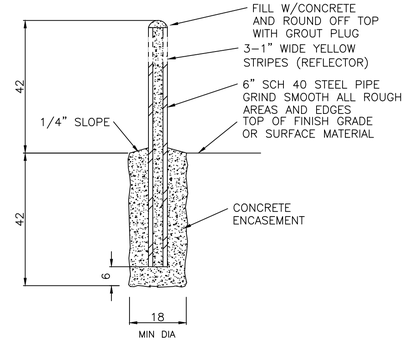
NOTES:

1. VALVE INFORMATION TO BE ENGRAVED INTO TOP SURFACE WITH 1/4" CAPITAL LETTERS.
2. ENTIRE MARKER TO BE COATED WITH CLEAR EPOXY TO PREVENT TARNISHING.
3. MARKERS SHALL BE MANUFACTURED BY WAGER COMPANY OF FLORIDA.

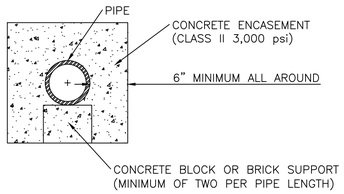
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

VALVE ID MARKER

WATR. DR. WATR 017
DATE 2015/09/21

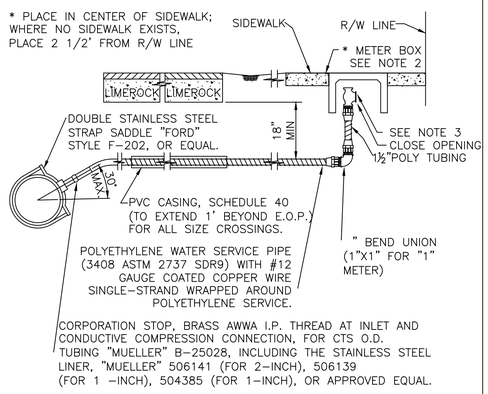


NOTE:
ALL STEEL MUST BE COMPLETELY PAINTED AFTER INSTALLATION WITH ZINC-RICH RUST INHIBITIVE PAINT. (TRAFFIC YELLOW).



NOTES:

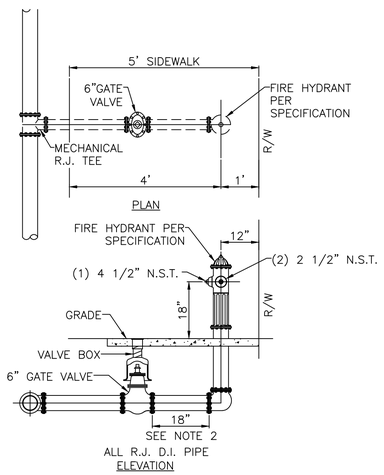
1. WHERE MINIMUM COVER, 36", IS NOT AVAILABLE ENCASEMENT WILL BE REQUIRED.
2. ALL CONCRETE ENCASEMENTS MUST BE FORMED AND INSPECTED BY THE CITY'S INSPECTOR PRIOR TO PLACING CONCRETE AND BACKFILLING.
3. WRAP PIPE IN VISQUEEN PRIOR TO POURING ENCASEMENT.
4. AT CROSSINGS, ENCASEMENT SHALL EXTEND TEN FEET (10') ON EITHER SIDE OF CROSSING.
5. BEGINNING AND ENDING OF ENCASEMENTS SHALL NOT BE MORE THAN 6" FROM A PIPE JOINT.



NOTE:

1. GROUND KEY ANGLE METER STOP,CONDUCTIVE COMPRESSION FOR CTS O.D. TUBING, X METER FLANGE 180° TURN CHECK-LOCK WING "MUELLER" H-14277, FOR 2-INCH INCLUDING THE STAINLESS STEEL LINER, "MUELLER" 506141 (FOR 2-INCH) OR APPROVED EQUAL, AND MUELLER 110 COMPRESSION CONNECTION.
2. METER BOXES FOR 5/8, 3/4, AND 1 INCH METERS SHALL BE THE OKIE DOKIE #890-40-260282 MEDIUM BOX AND 890-40-260257 MEDIUM LID OR EQUAL.
3. CONNECT ANGLE VALVE TO EXISTING METER WHERE APPLICABLE.

300 TYPICAL WATER SERVICE INSTALLATION
Scale: 1" = 1'



NOTES:

1. ACTUAL LOCATION OF FIRE HYDRANT TO BE DECIDED IN THE FIELD WITH ENGINEER'S APPROVAL.
2. KEEP VALVE AS CLOSE AS POSSIBLE TO THE HYDRANT.

302 TYPICAL NEW FIRE HYDRANT ASSEMBLY INSTALLATION
Scale: 1" = 2'

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
DATE: 07/09/2025
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

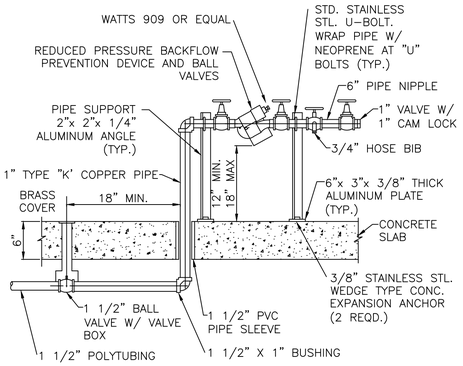
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

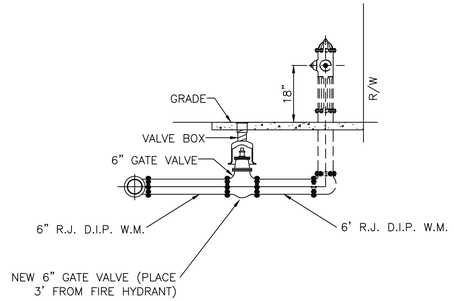
STANDARD DETAILS - SHEET 14

SHEET NO. DT-14
SHT # 142
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88



307 REDUCED PRESSURE BACKFLOW PREVENTER WITH HOSE CONNECTION FOR LIFT STATION

Scale: 1" = 1'

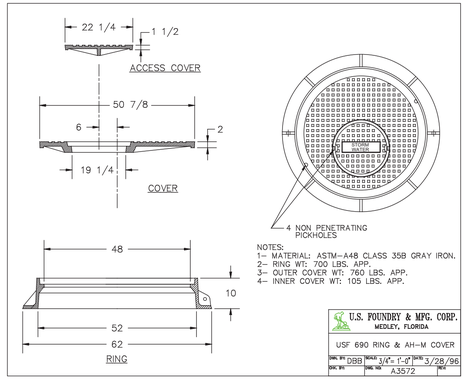


NOTES:

1. RECONNECT EXISTING FIRE HYDRANT TO NEW WATER MAIN.
2. KEEP VALVE AS CLOSE AS POSSIBLE TO THE HYDRANT.
3. WHEN FIRE HYDRANT "TEE" IS ON P.V.C. PIPE RUN, CONSTRUCT 1 LENGTH OF D.I.P. (R.J.) PIPE ON EACH SIDE OF FIRE HYDRANT "TEE".

308 RELOCATE OR CONNECT EXISTING FIRE HYDRANT

Scale: 1" = 2'



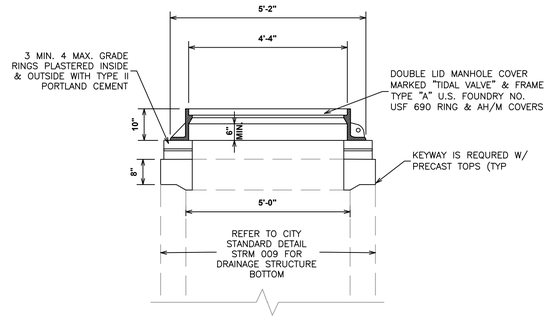
NOTES:
1- MATERIAL: ASTM-A48 CLASS 35B GRAY IRON.
2- RING WT: 700 LBS. APP.
3- OUTER COVER WT: 760 LBS. APP.
4- INNER COVER WT: 105 LBS. APP.

NOTES:

1. PRECAST CONCRETE TOP SLAB 4000 P.S.I.
2. REINFORCEMENT SHALL BE DESIGN BY THE MANUFACTURER TO COMPLY WITH FDOT INDEX 425.
3. LIFT HOLES ARE PERMITTED AND SHALL BE COATED WITH MORTAR INSIDE AND OUTSIDE AFTER INSTALLATION.
4. MANHOLE FABRICATION SHALL BE IN ACCORDANCE WITH A.S.T.M. C-478 LATEST STANDARD.
5. CONCRETE COLLAR REQUIRED WHEN MANHOLE IS OUTSIDE PAVEMENT, SEE CITY STANDARD DETAIL ROAD 040.
6. IF MANHOLE IS LARGER THAN 4' DIAMETER USE REDUCING GRADE RING OR CONE SECTION.
7. SET STRUCTURE FRAME ON A BED OF PORTLAND CEMENT AND SILICA SAND. BRING MORTAR UP TO FRAME.

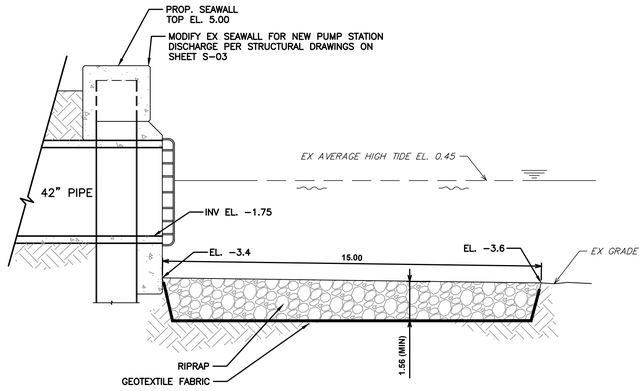
60" Ø OUTFALL STRUCTURE DETAIL

N.T.S



12" SWALE PROFILE

N.T.S

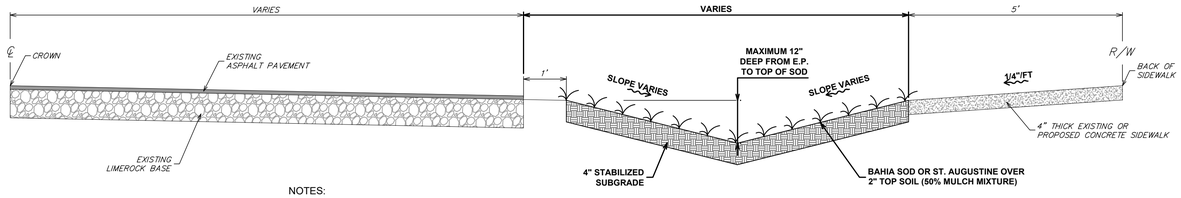


NOTES:

1. CONTRACTOR SHALL REMOVE ANY EXISTING FILTER FABRIC, RUBBLE, AND DEBRIS PRIOR TO INSTALLING RIPRAP.
2. CONTRACTOR SHALL ADD AND/OR REMOVE MATERIAL DURING INSTALLATION TO ENSURE THE BOTTOM ELEVATION OF THE WATERWAY, PRIOR TO SCOUR, IS NOT ALTERED.
3. CONTRACTOR SHALL FIELD VERIFY AREA OF EXISTING SCOUR PRIOR TO INSTALLING RIPRAP SYSTEM.
4. RIPRAP SHALL BE WELL-GRADED, ROUNDED STONES WITH AN AVERAGE EQUIVALENT DIAMETER OF 7 INCHES (APPROXIMATELY 5 INCHES TO 9 INCHES AND 5 TO 40 POUNDS). CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR ENGINEER'S REVIEW.
5. CONTRACTOR TO PROTECT EXISTING SEAGRASS, TO REMAIN.
6. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR OUTFALL/SEAWALL REQUIREMENTS.

PUMP STATION OUTFALL RIPRAP DETAIL

N.T.S



NOTES:

1. CONTRACTOR SHALL CENTER BOTTOM OF SWALE BETWEEN EDGE OF PAVEMENT AND R/W LINE IF NO SIDEWALK EXIST.
2. SLOPE VARIES BY ELEVATION OF INVERT OF SWALE ON PLANS TO A MAXIMUM OF 1.8:/FT. IF NOT INVERT IS PROVIDED FOLLOW STANDARD MAXIMUM SWALE DEPTH OF 6" TO CONSTRUCT SIDE SLOPE.

12" SWALE PROFILE

N.T.S

ENGINEER:
DAVID E. CASTRO FELIU, P.E.
REG. No: 65558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates

500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

DRAWN BY: JLS
DATE: 07/09/2025
DESIGNED BY: DECF
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	CH'D	DESCRIPTION

ISSUED FOR BID

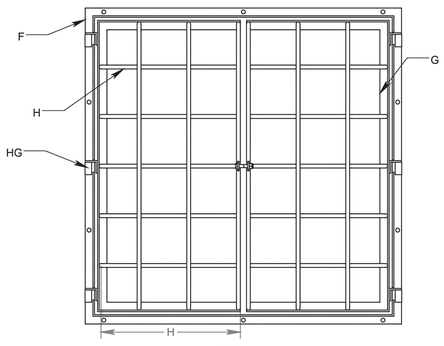
PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 15

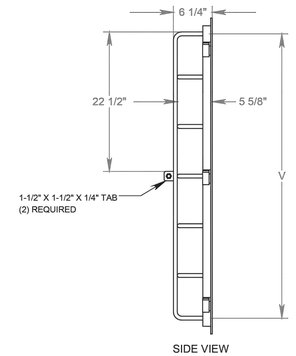
SHEET NO. DT-15
SHT # 143
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ENVIRONMENTAL COMPOSITES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ENVIRONMENTAL COMPOSITES, INC. IS PROHIBITED.

HINGED MANATEE GATE FOR A 42" DIA. PIPE



FRONT VIEW



SIDE VIEW

ITEM	DESCRIPTION	QTY.	DIMENSIONS
F	1 ½" X 1 ½" X ¼" STEEL ANGLE FRAME	1	51" X 51"
G	1 ½" X 1 ½" X ¼" STEEL ANGLE GATE	2	23" X 47"
H	½" STEEL ROUND BAR – HORIZONTAL	10	22-7/16"
V	½" STEEL ROUND BAR – VERTICAL	6	45-7/8"
HG	STANDARD STEEL HINGE	6	2" X 2"

HARDWARE: (10) 3/8" X 2-3/4" SS WEDGE ANCHORS

SCALE: NTS — DIMENSIONS ARE IN INCHES TOLERANCE ±N/A UNLESS OTHERWISE SPECIFIED — 3RD ANGLE PROJECTION

DATE: February 18, 2025 | **QUOTE #:** 2502297 | **QT LINE #:** 1

CUSTOMER: CHEN MOORE AND ASSOCIATES | **DRN BY:** PBRENNAN

JOB CITY OF FT LAUDERDALE HINGED GRATE 42

SO#: | **SO LINE#:** | **QTY:** 1

STRUCTURE # (s):

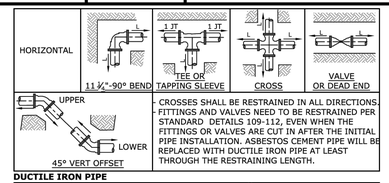
ENVIRONMENTAL COMPOSITES
4250 LAKE INDUSTRIAL BLVD.
TAVARES, FL 32778-9506 USA
PHONE: 352-343-3449 FAX: 352-343-5577

SOLIDWORKS

BROWARD COUNTY
PUBLIC WORKS DEPARTMENT

WATER & WASTEWATER SERVICES
ENGINEERING DIVISION
2555 WEST COPANS ROAD
POMPANO BEACH, FL 33069
PHONE NO. 954-831-0745
FAX: 954-831-0925

STANDARD DETAIL



- CROSSES SHALL BE RESTRAINED IN ALL DIRECTIONS.
- FITTINGS AND VALVES NEED TO BE RESTRAINED PER STANDARD DETAILS 109-112, EVEN WHEN THE FITTINGS OR VALVES ARE CUT IN AFTER THE INITIAL PIPE INSTALLATION. ASBESTOS CEMENT PIPE WILL BE REPLACED WITH DUCTILE IRON PIPE AT LEAST THROUGH THE RESTRAINING LENGTH.

DUCTILE IRON PIPE

	HORIZONTAL, L (FEET)						45° VERTICAL OFFSET (FEET)	
Diameter	11 ¼°	22 ½°	45°	90°	Tee or Cross	Valves and Dead End	UPPER	LOWER
4	1	2	4	10	7	20	9	4
6	2	3	6	14	15	28	12	5
8	2	4	8	17	23	37	16	7
10	2	5	9	21	30	44	19	8
12	3	5	10	24	38	52	22	9

PVC PIPE

	HORIZONTAL, L (FEET)						45° VERTICAL OFFSET (FEET)	
Diameter	11 ¼°	22 ½°	45°	90°	Tee or Cross	Valves and Dead End	UPPER	LOWER
4	2	3	5	12	11	32	14	5
6	2	4	7	16	23	45	19	6
8	3	5	9	21	37	59	25	8
10	3	5	11	25	48	71	30	9
12	3	6	12	29	61	83	35	11

THE NOTED REQUIREMENTS WERE CALCULATED IN ACCORDANCE WITH THRUST RESTRAINT CALCULATOR V7.2 BY EBAA IRON WITH THE FOLLOWING ASSUMPTIONS:
SOIL CONDITIONS: SW OR GW; NOMINAL SIZE EQUALS BRANCH SIZE; LENGTH ALONG RUN EQUALS 4 FEET
LAYING CONDITION: 4, SAND BEDDING, BACKFILL COMPACTED > 80%; VERTICAL LOW SIDE DEPTH EQUALS 3.5 FEET
MINIMUM COVER: 3.0 FT SAFETY FACTOR: 1.5 BARE PIPE (NO POLY WRAP)
IF FIELD CONDITIONS DIFFER FROM THE ABOVE, CONTRACTOR SHALL NOTIFY WWS.
FOR PIPE LARGER THAN INCLUDED IN THE ABOVE TABLES, ENGINEER OF RECORD SHALL SUBMIT CALCULATIONS FOR EACH JOINT REQUIRING RESTRAINT.

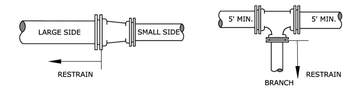
SINGLE FITTING RESTRAINED JOINT
150 PSI TEST PRESSURE

REVISED	RESTRAINED JOINT REQUIREMENTS SINGLE FITTING	FIGURE 109
7/7/2021		

BROWARD COUNTY
PUBLIC WORKS DEPARTMENT

WATER & WASTEWATER SERVICES
ENGINEERING DIVISION
2555 WEST COPANS ROAD
POMPANO BEACH, FL 33069
PHONE NO. 954-831-0745
FAX: 954-831-0925

STANDARD DETAIL



STRAIGHT REDUCER

DUCTILE IRON PIPE

SMALL SIDE \ DIAMETER	6"	8"	10"	12"
4"	15'	27'	36'	45'
6"		16'	27'	38'
8"			15'	28'
10"				16'

PVC PIPE

SMALL SIDE \	6"	8"	10"	12"
4"	24'	43'	58'	72'
6"		25'	44'	61'
8"			24'	44'
10"				25'

TEE REDUCER

DUCTILE IRON PIPE

BRANCH SIZE \ DIAMETER	6"	8"	10"	12"
4"	1'	1'	1'	1'
6"		6'	1'	1'
8"			15'	10'
10"				23'

PVC PIPE

BRANCH SIZE \	6"	8"	10"	12"
4"	1'	1'	1'	1'
6"		16'	8'	1'
8"			31'	25'
10"				44'

THE NOTED REQUIREMENTS WERE CALCULATED IN ACCORDANCE WITH THRUST RESTRAINT CALCULATOR V7.2 BY EBAA IRON WITH THE FOLLOWING ASSUMPTIONS:
SOIL CONDITIONS: SW OR GW; LENGTH ALONG RUN EQUALS 4 FEET
LAYING CONDITION: 4, SAND BEDDING, BACKFILL COMPACTED > 80%
MINIMUM COVER: 3.0 FT;SAFETY FACTOR: 1.5;BARE PIPE (NO POLY WRAP)
IF FIELD CONDITIONS DIFFER FROM THE ABOVE, CONTRACTOR SHALL NOTIFY WWS.
FOR PIPE LARGER THAN INCLUDED IN THE ABOVE TABLES, ENGINEER OF RECORD SHALL SUBMIT CALCULATIONS FOR EACH JOINT REQUIRING RESTRAINT.

RESTRAINED REDUCING FITTING
150 PSI TEST PRESSURE

REVISED	RESTRAINED JOINT REQUIREMENTS REDUCING FITTINGS	FIGURE 112
7/7/2025		

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ISSUED FOR BID

ENGINEER: DAVID E. CASTRO FELIU, P.E.
DATE:
No: 85558
TEL: 954.730.0707
FAX: 954.730.2030

DATE: 07/09/2025
DRAWN BY: JLS
DESIGNED BY: DECF
SCALE: AS SHOWN
CHECKED BY: JJM
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

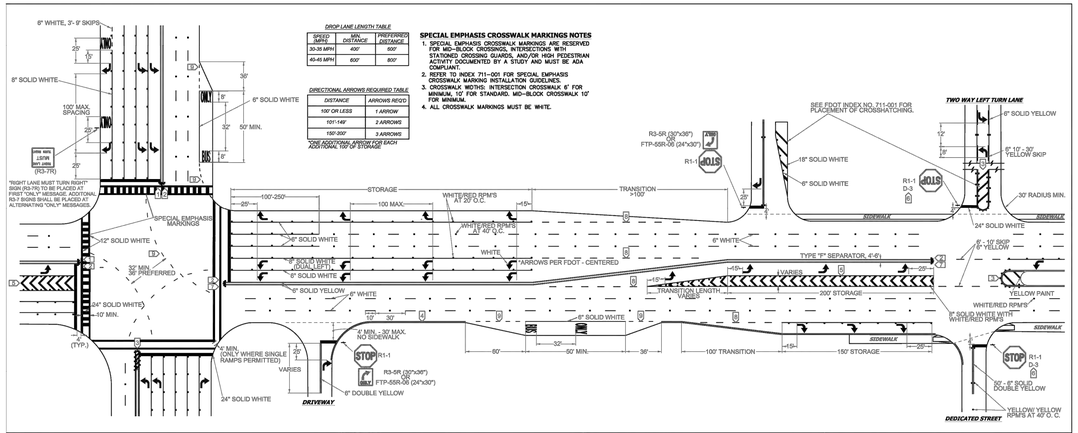
REVISIONS

NO.	DATE	BY	CHK'D	DESCRIPTION
1	07/09/2025	JLS	DECF	ADDENDUM #4

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 16

SHEET NO. DT-16 | SHT # 144
TOTAL: 233
CAD FILE: 12082-MULTI-DETL
DRAWING FILE NO. 4-144-88



DROP LANE LENGTH TABLE

SPEED (MPH)	MIN. DISTANCE	PREFERRED DISTANCE
30-35 MPH	400'	500'
40-45 MPH	600'	800'

DIRECTIONAL ARROWS REQUIRED TABLE

DISTANCE	ARROWS REQ'D
100' OR LESS	1 ARROW
101'-149'	2 ARROWS
150'-200'	3 ARROWS

*ONE ADDITIONAL ARROW FOR EACH ADDITIONAL 100' OF STORAGE

SPECIAL EMPHASIS CROSSWALK MARKINGS NOTES

1. SPECIAL EMPHASIS CROSSWALK MARKINGS ARE RESERVED FOR MID-BLOCK CROSSWALK INTERSECTIONS WITH STATIONED CROSSING GUARDS, AND/OR HIGH PEDESTRIAN ACTIVITY DOCUMENTED BY A STUDY AND MUST BE ADA COMPLIANT.
2. REFER TO INDEX 711-001 FOR SPECIAL EMPHASIS CROSSWALK MARKING INSTALLATION GUIDELINES.
3. CROSSWALK WIDTHS: INTERSECTION CROSSWALK 6' FOR MINIMUM, 10' FOR STANDARD. MID-BLOCK CROSSWALK 10' FOR MINIMUM.
4. ALL CROSSWALK MARKINGS MUST BE WHITE.

NOTES

1. ALL PAVEMENT MARKINGS SHALL BE ALKYD BASED THERMOPLASTIC AND FULLY RETROREFLECTORIZED.
2. ALL PAVEMENT MARKINGS ON PAVER SYSTEMS SHALL BE 3M 380/381 SERIES TAPE OR EQUIVALENT AND APPLIED WITH PXO ADHESIVE AS PER MANUFACTURERS SPECIFICATIONS.
3. ALL PAVEMENT MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", BCTED STANDARDS, AND FDOT DESIGN STANDARDS.
4. SEE FDOT INDEX NO 706-001 FOR PLACEMENT OF RPM's (FOR BULLNOSE RPM TREATMENT, SEE LEGEND NO. 1)
5. RPM's SHALL BE CLASS "B" OR EQUIVALENT, APPLIED WITH EPOXY OR BITUMINOUS ADHESIVE.
6. FDOT APPROVED SEALER SHALL BE USED WHEN APPLYING MARKINGS ON CONCRETE.
7. FOR BIKE LANE DETAILS SEE FDOT INDEX NO. 711-002.
8. EXISTING MARKINGS SHALL BE REMOVED BY WATER BLASTING OR SAND BLASTING.
9. ALL STOP LINES TO BE 4' BEHIND CROSSWALK OR SIDEWALK.
10. PAVEMENT MARKING REFLECTIVITY SHALL BE UNIFORM ACROSS THE ENTIRE STRIPE AND SHALL HAVE A MINIMUM REFLECTIVITY READING OF 250 MILLICANDELAS FOR WHITE AND 175 MILLICANDELAS FOR YELLOW.
11. ALL PRODUCTS MUST BE ON FDOT'S APPROVED PRODUCTS LIST (APL).
12. RPM'S SHALL NOT BE INSTALLED ADJACENT TO BIKE LANES.
13. LONGITUDINAL CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL CROSS STREETS ON COUNTY ROADS THAT ARE FOUR LANES OR GREATER.

LEGEND

1. YELLOW/YELLOW RPM DETAILS — DIRECTION OF TRAVEL; CENTERLINE; 1" DIA. C. TO C. MIN TO CROSSWALK; REFLECTIVE YELLOW; DIRECTION OF TRAVEL
2. MEDIAN NOSE PAINT DETAILS — RAISED SEPARATOR; GRASS MEDIAN; POINT OF CURVE; REFLECTIVE YELLOW; RADIUS POINT; * DO NOT PAINT BRICK PAVERS
3. PAINTED MEDIAN DETAILS — DIRECTION OF TRAVEL; 6" SOLID DOUBLE YELLOW; 1'-0"; YELLOW PAINT; 18" SOLID YELLOW; YELLOW/YELLOW RPM's
4. EDGE LINE DETAILS — 6" SOLID WHITE OR YELLOW; EDGE OF PAVEMENT
5. CHEVRON DETAILS - CROSSWALK AREAS AND IN FRONT OF CURB RAMPS — DIRECTION OF TRAVEL; WHITE/RED RPM's; 18" SOLID WHITE; 6" SOLID WHITE; DIRECTION OF TRAVEL; SEE FDOT INDEX NO. 17346 FOR PLACING OF CHEVRONS
6. STREET NAME BLADE DETAILS — SEE BCTED STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS.
7. TYPE IV SEPARATOR DETAILS — 2'; 4'; REFLECTIVE YELLOW PAINT; YELLOW/YELLOW RPM's; 8" SOLID YELLOW; TYPE "F" CURB AND GUTTER; 6'-12"
8. 6'-10' SKIP DETAILS — 6' - 10' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:
   - TRANSITIONS AT ALL LEFT AND RIGHT TURN LANES
9. 2'-4' SKIP DETAILS — 2' - 4' SKIPS 6" WHITE SHALL BE USED FOR THE FOLLOWING CONDITIONS:
   - ADDED DISTANCE BETWEEN DUAL LEFTS TURN MOVEMENT (80' RADIUS OR GREATER TURNING PATH ON PLANS)
   - BUS BAY TRANSITIONS

STOP SIGN NOTE

WHERE SIDE ROADS INTERSECT A MULTI LANE STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 45 MPH OR HIGHER, THE MINIMUM SIZE OF THE STOP SIGNS FACING THE SIDE ROAD APPROACHES, EVEN IF THE SIDE ROAD ONLY HAS ONE APPROACH LANE, SHALL BE 36"X36".

WHERE SIDE ROADS INTERSECT A MULTI-LANE (INCLUDING TURN LANE) STREET OR HIGHWAY THAT HAS A SPEED LIMIT OF 40 MPH OR LOWER, THE MINIMUM SIZE OF THE STOP SIGN FACING THE SIDE ROAD APPROACHES SHALL BE 30"X30".

REVISIONS	
DATE	DESCRIPTION
11-24-2020	UPDATED NOTES
04-14-2021	UPDATED NOTES
05-06-2022	UPDATED NOTES

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

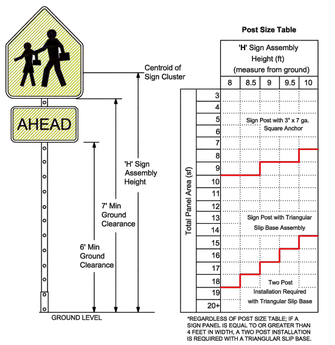
DESIGN BY: CARMELO CARATOZZOLO, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

PAVEMENT MARKINGS AND SIGNS DETAILS

SHEET NO. 1 OF 1

GUIDE TO USE THIS STANDARD:

1. Calculate the Total Panel Area and the centroid 'C' for an individual sign or a sign cluster.
2. Determine the height 'H' from the groundline for the individual sign or the cluster.
3. Consult the Post Size Table and find the intersection point.
4. Design the post and the foundation according to the required Post Size and Assembly Details.

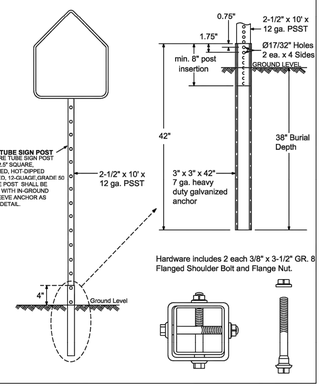


Post Size Table

Total Panel Area (sf)	'H' Sign Assembly Height (ft) (measure from ground) 8	8.5	9	9.5	10
3					
4					
5	Sign Post with 3" x 7 ga. Square Anchor				
6					
7					
8					
9					
10					
11					
12					
13	Sign Post with Triangular Slip Base Assembly				
14					
15					
16					
17					
18	Two Post Installation Required with Triangular Slip Base				
19					
20+					

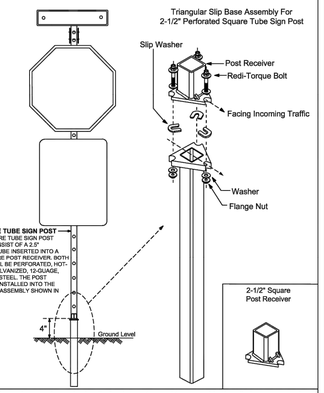
*REGARDLESS OF POST SIZE TABLE: IF A SIGN PANEL IS EQUAL TO OR GREATER THAN 4 FEET IN WIDTH, A TWO POST INSTALLATION IS REQUIRED WITH A TRIANGULAR SLIP BASE.

Sign Post with 3" x 7 ga. Square Anchor



SQUARE TUBE SIGN POST
THE SQUARE TUBE SIGN POST SHALL BE 2.5" SQUARE, PERFORATED, HOT-DIPPED GALVANIZED, 12-GUAGE,GRADE 50 STEEL. THE POST SHALL BE INSTALLED WITH IN-GROUND FITTED SLEEVE ANCHOR AS SHOWN IN DETAIL.

Sign Post with Triangular Slip Base



SQUARE TUBE SIGN POST
THE SQUARE TUBE SIGN POST SHALL CONSIST OF A 2.5" SQUARE TUBE INSERTED INTO A SQUARE TUBE POST RECEIVER. BOTH TUBES WILL BE PERFORATED, HOT-DIPPED GALVANIZED, 12-GUAGE, GRADE 50 STEEL. THE POST SHALL BE INSTALLED INTO THE SLIP BASE ASSEMBLY SHOWN IN DETAIL.

Note: Dimensions and certain details for the parts used to assemble the slip base connections are intentionally not shown. Slip base connections are patented manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are only shown on this plan to illustrate how the parts are assembled. The complete assembly must be designed to withstand 150 mph Base Wind Speed per 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th edition and interims.

REVISIONS	
DATE	DESCRIPTION
03-21-2017	UPDATED POST SIZE
11-24-2020	ADDED POST SIZE NOTE
02-05-2021	UPDATED POST BASE HEIGHT

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: YVES D'ANJOU, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: ANDREW SEBO, P.E., PTOE

GROUND SIGN ASSEMBLY DETAILS

SHEET NO. 1 OF 1

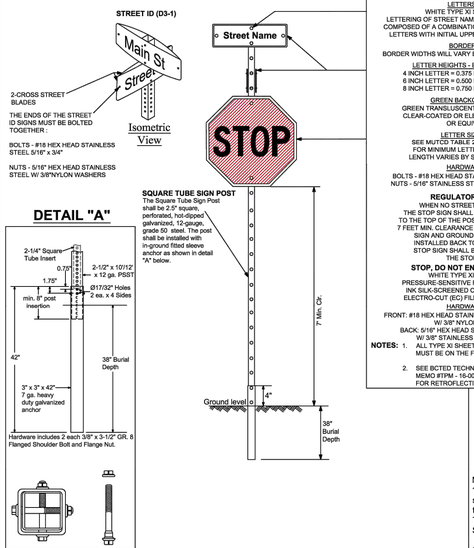
ENGINEER: DAVID E. CASTRO FELIU, P.E.
BCTED No: 05558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS | DATE: 07/09/2025
DESIGNED BY: DECF | SCALE: AS SHOWN
CHECKED BY: JJM | FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

FOR SIGN ASSEMBLIES WITH MAXIMUM 8.75 SQUARE FOOT PANEL AREA

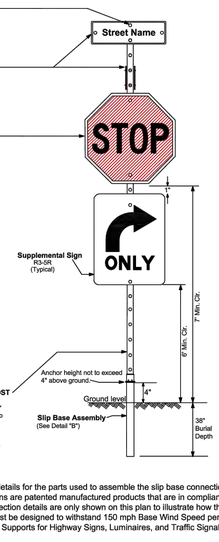
Typical Details



DETAIL "A"

FOR SIGN ASSEMBLIES WITH GREATER THAN 8.75 SQUARE FOOT PANEL AREA WITH SUPPLEMENTAL SIGN

Typical Details



STREET ID (D3-1) MATERIALS:

LETTERS
WHITE TYPE XI SHEETING
LETTERING OF STREET NAME SIGNS SHALL BE COMPOSED OF A COMBINATION OF LOWERCASE LETTERS WITH INITIAL UPPERCASE LETTERS

BORDER
BORDER WIDTHS WILL VARY BASED ON LETTER HEIGHTS

LETTER HEIGHTS - BORDER WIDTHS
4 INCH LETTER = 0.375 INCH BORDER WIDTH
6 INCH LETTER = 0.500 INCH BORDER WIDTH
8 INCH LETTER = 0.750 INCH BORDER WIDTH

GREEN BACKGROUND
GREEN TRANSLUCENT INK SILK-SCREENED CLEAR-COATED OR ELECTRO-CUT (EC) FILM OR EQUIVALENT

LETTER SIZES
SEE MUTCD TABLE 2B-3 (PG 163) FOR MINIMUM LETTER HEIGHTS LENGTH VARIES BY STREET NAME

HARDWARE
BOLTS - #18 HEX HEAD STAINLESS STEEL 5/16" x 3"
NUTS - 5/16" STAINLESS STEEL W/ NYLON WASHERS.

REGULATORY SIGN
WHEN NO STREET ID IS PRESENT THE STOP SIGN SHALL BE MOUNTED FLUSH TO THE TOP OF THE POST WHILE MAINTAINING 7 FEET MIN. CLEARANCE BETWEEN BOTTOM OF SIGN AND GROUND LEVEL. ANY SIGN INSTALLED BACK TO BACK WITH THE STOP SIGN SHALL BE SMALLER THAN THE STOP SIGN.

STOP, DO NOT ENTER OR YIELD
WHITE TYPE XI SHEETING
PRESSURE-SENSITIVE RED TRANSLUCENT INK SILK-SCREENED CLEAR-COATED OR ELECTRO-CUT (EC) FILM OR EQUIVALENT.

HARDWARE
FRONT: #18 HEX HEAD STAINLESS STEEL 5/16" x 3" BOLT W/ 3/8" NYLON WASHER
BACK: 5/16" HEX HEAD STAINLESS STEEL NUT W/ 3/8" STAINLESS STEEL WASHER.

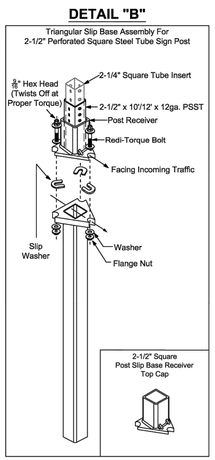
NOTES: 1. ALL TYPE XI SHEETING UTILIZED MUST BE ON THE FDOT APL LIST.

2. SEE BCTED TECHNICAL POLICY MEMO #TPM - 16-001 - SPECIFICATIONS FOR RETROFLECTIVE TRAFFIC SIGN MATERIALS.

SQUARE TUBE SIGN POST
The Square Tube Sign Post shall consist of a 6 foot x 2.25" square tube insert inserted into a 2.5" square post receiver. Both tubes will be perforated, hot-dipped galvanized, 12-gauge, grade 50 steel. The post shall be installed into the slip base assembly shown in detail "B".

DETAIL "B"

Triangular Slip Base Assembly For 2-1/2" Perforated Square Steel Tube Sign Post



Notes:
1. Dimensions and certain details for the parts used to assemble the slip base connections are intentionally not shown. Slip base connections are patented manufactured products that are in compliance with NCHRP 350 crash test criteria. The base connection details are only shown on this plan to illustrate how the parts are assembled. The complete assembly must be designed to withstand 150 mph Base Wind Speed per 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 6th edition and interims.
2. For standard ground sign installation, see detail entitled " Ground Sign Assembly Details".

REVISIONS	
DATE	DESCRIPTION
02-26-2020	ADDED ISOMETRIC VIEW
02-05-2021	UPDATED POST BASE HEIGHT
06-22-2023	UPDATED SIGN POST NOTES

BROWARD COUNTY FLORIDA

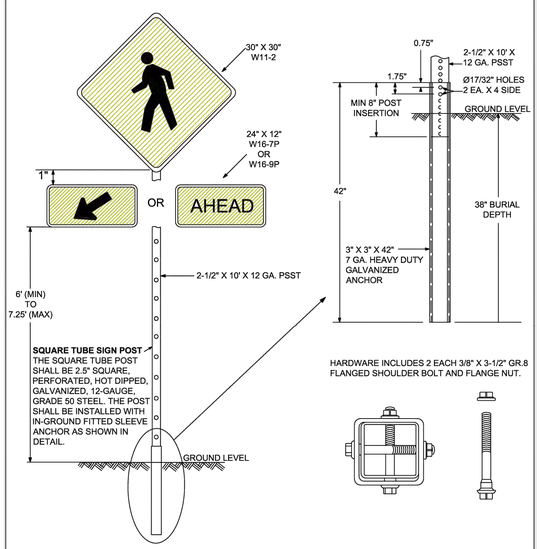
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: CARMELO CARATOZZOLO, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

STOP SIGN AND STREET IDENTIFICATION ASSEMBLY TYPICAL DETAILS

SHEET NO. 1 OF 1

W11-2 (30"x 30") & SUPPLEMENTAL (24"x 12") SIGN ASSEMBLY



1. SCHOOL ZONE AND PEDESTRIAN SIGNS SHALL BE COMPRISED OF REFLECTIVE FLUORESCENT YELLOW-GREEN SHEETING. (SEE BCTED TECHNICAL POLICY MEMO #TPM-16-001 ON BCTED WEBSITE)
2. NOT FOR USE WITH RECTANGULAR RAPID FLASHING BEACONS

REVISION: 11-15-18	W11-2 (30"x 30") & SUPPLEMENTAL (24"x 12") SIGN ASSEMBLY
	SCALE: NTS
	DESIGN BY: YVES D'ANJOU, P.E.
	DRAWN BY: STEPHON RAMOUTAR
SHEET 1 OF 1	CHECKED BY: ANDREW SEBO, P.E., PTOE

BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

Hazen
HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

NO.	DATE	BY	CHK'D	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS
STANDARD DETAILS - SHEET 17

SHEET NO. DT-17 | SHT # 145

TOTAL: 233

CAD FILE: 12082-MULTI-DETL

DRAWING FILE NO. 4-144-88

A — W11-2 30" x 30" / W16-7P 24" x 12"

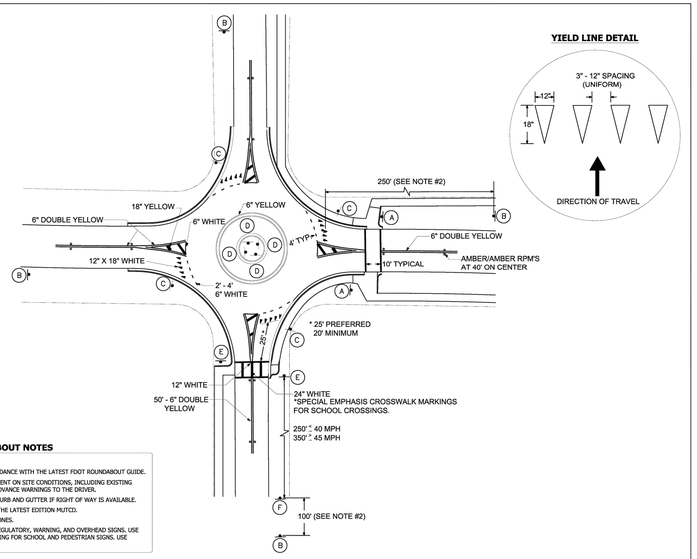
B — W2-6 30" x 30" / 15 MPH W13-1 18" x 18"

C — STREET ID D3 / YIELD R1-2 36" x 36" x 36" / TO TRAFFIC IN ROUNDABOUT 24" x 18"

D — KEEP RIGHT R4-7B 18" x 24" OR OM1-3 18" x 18" (OPTIONAL) / R6-4 30" x 24"

E — S1-1 36" x 36" / W16-7P 24" x 12"

F — S1-1 36" x 36" / AHEAD W16-9P 24" x 12"



YIELD LINE DETAIL

ROUNDABOUT NOTES

GENERAL NOTES:

1. ROUNDABOUT GEOMETRY SHALL BE IN ACCORDANCE WITH THE LATEST FDOT ROUNDABOUT GUIDE.
2. PLACEMENT OF ADVANCE SIGNAGE IS DEPENDENT ON SITE CONDITIONS, INCLUDING EXISTING SIGNAGE, AND SHALL PROVIDE SUFFICIENT ADVANCE WARNINGS TO THE DRIVER.
3. SIGNS SHALL NOT OVERHANG SIDEWALK OR CURB AND GUTTER IF RIGHT OF WAY IS AVAILABLE.
4. SIGN SIZES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION MUTCD.
5. E AND F SIGNS SHALL BE USED IN SCHOOL ZONES.
6. TYPE XI SHEETING SHALL BE USED FOR ALL REGULATORY, WARNING, AND OVERHEAD SIGNS. USE TYPE IV YELLOW-GREEN FLUORESCENT SHEETING FOR SCHOOL AND PEDESTRIAN SIGNS. USE TYPE IV SHEETING FOR ALL OTHER SIGNS.

REVISIONS	
DATE	DESCRIPTION
01-18-2017	Minor Changes
04-12-2018	Added Sign
04-09-2019	Updated Sign Requirements

BROWARD COUNTY FLORIDA

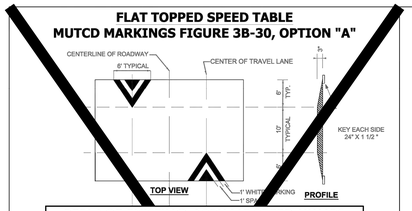
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: LEI CAI, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

PAVEMENT MARKINGS & SIGNING DETAILS FOR ROUNDABOUTS –LOCAL STREETS

SHEET NO. 1 OF 1

FLAT TOPPED SPEED TABLE
MUTCD MARKINGS FIGURE 3B-30, OPTION "A"



REPLACE EXISTING ASPHALT SPEED HUMPS WITH SPEED CUSHIONS BY TRAFFICLOGIX, OR APPROVED EQUAL. SPEED CUSHIONS SHALL BE 21' x 6' x 3" AND SHALL HAVE INTERLOCKING RUBBER PANELS. PAVEMENT MARKINGS SHALL MEET MUTCD REQUIREMENTS AND REFLECTIVITY REQUIREMENTS. INSTALLATION SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL COORDINATE WITH AND OBTAIN APPROVAL FROM THE ENGINEER AND/OR CITY REGARDING FINAL PRODUCT SELECTION AND PAVEMENT MARKING PREFERENCES PRIOR TO PROCURING THE MATERIAL.

NOTES:

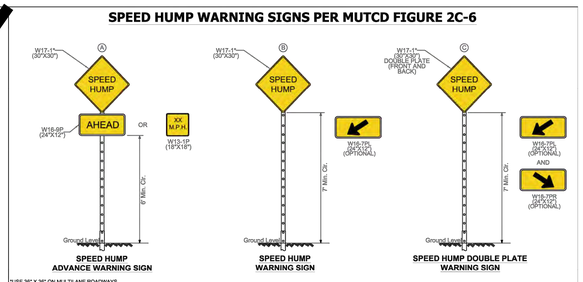
THE FOLL… BROWARC…

1. THE S… TWEN…
   a. HEIG…
   b. TEN…
   c. SIX (…
   d. EIGH…
2. KEY C… TO SP…
3. KEY C… OF CH…
4. PAVE… (MUTC…
   a. FOR … SPAC… TRA…
   b. SIX (… EDG…

OTHER IN…

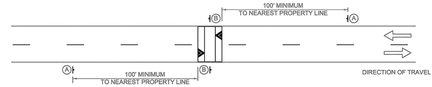
1. ALL S…
2. TAC…
3. APPROVED MAINTENANCE OF TRAFFIC PLAN SHALL BE ESTABLISHED FOR EACH SPEED HUMP INSTALLATION.
   INSTALLATION SHALL BE IN COMPLIANCE WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2023-2024.

SPEED HUMP WARNING SIGNS PER MUTCD FIGURE 2C-6

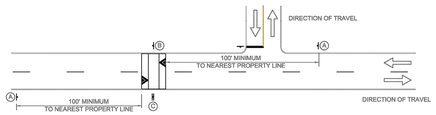


*USE 36" X 36" ON MULTILANE ROADWAYS

STANDARD



INTERSECTION



REVISIONS	
DATE	DESCRIPTION

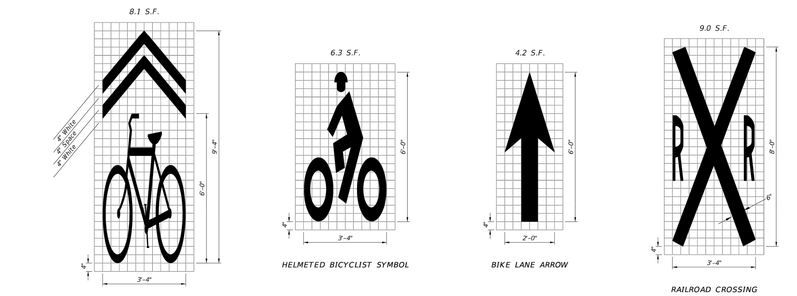
BROWARD COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: LIANA BORREGO CARMONA, P.E. — SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: LEI CAI, P.E., PTOE

SPEED HUMP DETAILS AND SPECIFICATIONS

SHEET NO. 1 OF 1



SHARED LANE MARKING (SLM)

HELMETED BICYCLIST SYMBOL

BIKE LANE ARROW

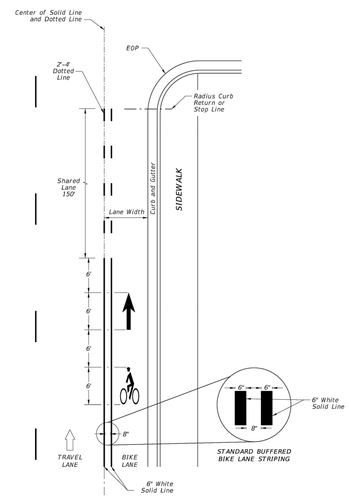
RAILROAD CROSSING

NOTES:

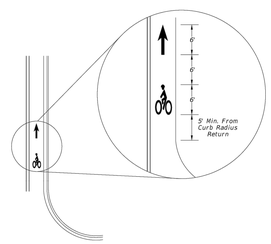
1. All bicycle markings and pavement messages shall be White.
2. All bicycle markings shall be preformed thermoplastic.
3. All grids are 4" x 4".

STANDARD PAVEMENT MARKING MESSAGE LAYOUTS

LAST REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	BICYCLE MARKINGS	INDEX	SHEET
11/01/17				711-002	1 of 2



APPROACH TO INTERSECTIONS DETAILS



FAR SIDE OF INTERSECTION DETAIL

BUFFERED BIKE LANES

LAST REVISION	DESCRIPTION:	FDOT FY 2023-24 STANDARD PLANS	BICYCLE MARKINGS	INDEX	SHEET
11/01/17				711-002	2 of 2

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

cma
chen moore and associates
500 West Cypress Creek Road,
Suite 600
Ft. Lauderdale, FL 33309
954.730.0707
www.chenmoore.com

ENGINEER: DAVID E. CASTRO FELIU, P.E.
REG. No: 85558
DATE:
TEL: 954.730.0707
FAX: 954.730.2030

DRAWN BY: JLS
DESIGNED BY: DECF
CHECKED BY: JJM
DATE: 07/09/2025
SCALE: AS SHOWN
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING
101 NE 3rd Avenue, Suite 2100, Fort Lauderdale, Florida 33301

REVISIONS			
NO.	DATE	BY (CHK'D)	DESCRIPTION

ISSUED FOR BID

PROJECT # 12082
VICTORIA PARK STORMWATER IMPROVEMENTS

STANDARD DETAILS - SHEET 18

SHEET NO. DT-18
SHT # 146
TOTAL: 233
CAD FILE: 12082–MULTI–DETL
DRAWING FILE NO. 4–144–88

PROJECT #12082 – VICTORIA PARK STORMWATER IMPROVEMENTS

SECTION 09900 PAINTING

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish all labor, tools, materials, supervision and equipment necessary to do all the work specified herein and as required for a complete installation, including surface preparation, priming and painting of Contractor furnished equipment, materials, and structures.

B. Section includes:

1. Paint Materials

2. Shop Painting

3. Field Painting

a. Surface Preparation

b. Piping and Equipment Identification

c. Schedule of Colors

d. Work in Confined Spaces

e. OSHA Safety Colors

1.02 GENERAL INFORMATION AND DESCRIPTION

A. The term "paint," as used herein, includes emulsions, enamels, paints, stains, varnishes, sealers, cement filler, cement epoxy fillers and other coatings, whether used as prime, intermediate, or finish coats.

B. All paint for concrete and metal surfaces shall be especially adapted for use in and around water and wastewater treatment facilities and shall be applied in conformance with the manufacturer's published specifications.

C. All paint for final coats shall be fume resistant, compounded with pigments suitable for exposure to sewage gases, especially to hydrogen sulfide and to carbon dioxide. Pigments shall be materials which do not tend to darken, discolor, or fade due to the action of sewage gases. If a paint manufacturer proposes use of paint which is not designated "fume resistant" in its literature, it shall furnish full information concerning the pigments used in this paint.

D. Provide primers and intermediate coats produced by same manufacturer as finish coat. Use only thinners approved by paint manufacturer, and only within manufacturer’s recommended limits.

E. Coatings used in conjunction with potable water supply systems shall have U.S. Environmental Protection Agency (EPA) and FDA approval for use with potable water and shall not impart a taste or odor to the water.

F. All building, facilities, structures, and appurtenances, as indicated on the Drawings and as specified herein, shall be painted with not less then one shop coat and two field coats, or one prime coat and two finish coats of the appropriate paint. Items to be painted include, but are not limited to, exterior and interior concrete, structural steel, miscellaneous metals, steel and aluminum doors and frames, concrete block, ductwork, sluice gates, operators, pipe fittings, valves, mechanical equipment, motors, conduit, and all other work which is obviously required to be painted unless otherwise specified.

G. Baked on enamel finishes and items with standard shop finishes such as graphic panels, electrical equipment, toilet partitions, lockers, instrumentation, etc., shall not be field painted unless the finish is damaged during shipment or installation. Aluminum, stainless steel, fiberglass and bronze work shall not be painted unless color coding and marking is required or otherwise specified. A list of surfaces not to be coated is included in Article 1.09 of this Section.

H. Ensure compatibility of total paint system for each substrate. Test shop primed equipment delivered to the site for compatibility with final paint system. Provide an acceptable barrier coat or totally remove shop applied paint system when incompatible with system specified, and repaint with specified paint system.

I. The Contractor shall obtain all permits, licenses and inspections and shall comply with all laws, codes, ordinances, rules and regulations promulgated by authorities having jurisdiction which may bear on the work. This compliance will include Federal Public Law 91-596 more commonly known as the "Occupational Safety and Health Act of 1970".

1.03 REFERENCE SPECIFICATION, CODES AND STANDARDS

A. Without limiting the generality of these specifications the Work shall conform to the applicable requirements of the following documents:

1. SSPC - The Society for Protective Coatings Standards

a.	SSPC-Vis 1	Pictorial Surface Preparation Standards for Painting Steel Structures
b.	SSPC-SP2	Hand Tool Cleaning
c.	SSPC-SP3	Power Tool Cleaning
d.	SSPC-SP5	(NACE No. White Metal Blast Cleaning
e.	SSPC-SP6	(NACE No. Commercial Blast Cleaning
f.	SSPC-SP10	(NACE No. Near-White Metal Blast
g.	SSPC-SP13	(NACE No. 6) Surface Preparation of Concrete

2. NACE - National Association of Corrosion Engineers

3. ASTM D1737 - Test Method for Elongation of Attached Organic Coatings with Cylindrical Mandrel Apparatus

4. ASTM B117 - Method of Salt Spray (Fog) Testing

5. ASTM D4060 - Test Method for Abrasion Resistance of Organic Coating by the Taber Abraser

6. ASTM D3359 - Method for Measuring Adhesion by Tape Test

1.04 MANUFACTURERS

A. All painting materials shall be as manufactured by Tnemec, Carboline, Sherwin Williams, or equal.

1.05 SUBMITTALS

A. The Contractor shall submit paint manufacturer's data sheets, application instructions, and samples of each finish and color to the Engineer for review, before any work is started in accordance with Section 01300 entitled, "Submittals."

B. Submitted samples of each finish and color shall be prepared in a step-down format so that the area of each sample indicates the appearance of the various coats. For example, where a three-coat system is specified, the sample shall be divided into three areas indicating one coat only, two coats and all three coats. The Engineer will provide written authorization constituting a standard, as to color and finish only, for each coating system.

C. The Contractor shall prepare a complete schedule of surfaces to be coated and shall identify the surface preparation and paint system proposed for use. The Paint Schedule shall be in conformance with Article 3.03 of this Section. The schedule shall contain the name of the paint manufacturer, and the name, address, email address and telephone number of the manufacturer’s representative that will inspect the Work, and/or the certified NACE Level 2 (or higher) inspectors assigned by the manufacturer that will inspect the Work of the steel sheet pile coating. The schedule shall be submitted to the Engineer for review as soon as possible following the Notice to Proceed. The manufacturer shall submit a letter stating that the paint systems are proper for the exposure and service. If applicable, the manufacturer shall recommend improvements to the paint system specified, specific to the products being furnished.

D. Certifications of NACE Level 2 (or higher) inspectors (for seawall steel sheet pile coating).

E. For the seawall steel sheet pile coating, submit a coating repair plan procedure provided by the paint manufacturer. The repair plan procedure shall consist of surface preparation and a compatible painting system equal to or better than the original painting system that will be applied in the field. Submit the corresponding paint manufacturer’s data sheets and application instructions.

F. Name and detailed qualifications of the protective coating applicator or subcontractor. Qualifications shall include, but not be limited to, five (5) project references which show that the painting applicator or subcontractor has previous successful experience with the specified or comparable coating systems, a list of installations that are currently in service and documentation that applicator or subcontractor is currently a qualified applicator of

the proposed coatings by the manufacturer. Include the name, address and telephone number of the owner of each installation for which the coating applicator provided the coating.

1.06 SERVICES OF MANUFACTURER'S REPRESENTATIVE

A. The Contractor shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a representative to inspect the application of his product both in the shop and field. The Contractor, through the manufacturer's representative, shall submit his report to the Engineer at the completion of his Work identifying the products used and verifying that said products were properly applied and that the paint systems were proper for the exposure and service.

B. For the seawall steel sheet pile, the Contractor shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a certified NACE Level 2 (or higher) inspector, to provide continuous inspection of the application of the products and to provide an inspection report of all elements painted. Certification of all NACE Level 2 (or higher) inspectors shall be submitted for review prior to surface preparation and painting. The inspection report shall be submitted at the completion of painting. The report shall reference each structural element, identify the products used and verify they were applied in conformance with the contract documents.

C. Services shall also include, but not be limited to, inspecting prior coatings of paint, determination of best means of surface preparation, inspection of complete work, and re-inspection of painted work to be performed six months after the job is completed.

1.07 MANUFACTURER'S INSTRUCTIONS

A. The manufacturer's published instructions for use as a guide in specifying and applying the manufacturers proposed paint shall be submitted to the Engineer. Paint shall not be delivered to the job before acceptance of the manufacturer's instructions is given by the Engineer.

B. A manufacturer's paint will not be considered for use unless that manufacturer's published instructions meets the following requirements:

1. The instructions must have been written and published by the manufacturer for the purpose and with the intent of giving complete instruction for the use and application of the proposed paint in the locality and for the conditions for which the paint is specified or shown to be applied under this Contract.

2. All limitations, precautions, and requirements that may adversely affect the paint; that may cause unsatisfactory results after the painting application; or that may cause the paint not to serve the purpose for which it was intended; that is, to protect the covered material from corrosion, shall be clearly and completely stated in the instructions. These limitations and requirements shall, if they exist, include, but not be limited to the following:

a. Methods of application

b. Number of coats

c. Thickness of each coat

d. Total thickness

e. Drying time of each coat, including primer

f. Primer required to be used

g. Primers not permitted

h. Use of a primer

i. Thinner and use of thinner

j. Temperature and relative humidity limitations during application and after application

k. Time allowed between coats

l. Protection from sun

m. Physical properties of paint including solids content and ingredient analysis

n. Surface preparation

o. Touch up requirements and limitations

C. Concrete surfaces specified by the paint manufacturer to be acid etched shall be etched in accordance with the manufacturer's instructions. The surface shall then be thoroughly scrubbed with clean water, rinsed, and allowed to dry. The surface shall be tested with a moisture meter to determine when dry before coating. The surface shall also be tested for pH to determine the acid has been properly neutralized.

1.08 QUALITY ASSURANCE

A. The Contractor shall give the Engineer a minimum of three days advance notice of the start of any field surface preparation work of coating application work.

B. All such Work shall be performed only in the presence of the Engineer, unless the Engineer has specifically allowed the performance of such Work in his absence.

C. Review by the Engineer, or the waiver of review of any particular portion of the Work, shall not relieve the Contractor of his responsibility to perform the Work in accordance with these Specifications.

D. The Contractor shall provide references of the coating applicator or subcontractor per article 1.05, E.

1.09 SAFETY AND HEALTH REQUIREMENTS

A. In accordance with requirements of OSHA Safety and Health Standards for Construction (29CFR1926) and the applicable requirements of regulatory agencies having jurisdiction, as well as manufacturer's printed instructions, appropriate technical bulletins, manuals,

and material safety data sheets, the Contractor shall provide and require use of personnel protective and safety equipment for persons working in or about the project site.

B. Respirators shall be worn by persons engaged or assisting in spray painting. The Contractor shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the work.

C. All paint shall comply with all requirements of the Air Pollution Regulatory Acts concerning the application and formulation of paints and coatings for an area in which the paints are applied. Specifically, paints shall be reformulated as required to meet the local, State and Federal requirements.

1.10 SURFACES NOT TO BE COATED

A. The following items shall not be coated unless otherwise noted:

1. Encased piping or conduit.
2. Stainless steel work.
3. Clear PVC secondary containment piping.
4. Galvanized checkered plate.
5. Aluminum handrails, walkways, windows, louvers, grating and checkered plate.
6. Flexible couplings, lubricated bearing surfaces and insulation.
7. Packing glands and other adjustable parts of mechanical equipment.
8. Finish hardware.
9. Steel encased in concrete or masonry (except for seawall).
10. Plastic switch plates and receptacle plates.
11. Signs and nameplates.
12. Any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name or nomenclature plates.
13. Any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sensing devices, motor and fan shafts, unless otherwise indicated.
14. Stormwater Manholes
~~13.~~15. Stormwater Catch Basins

1.11 QUALITY WORKMANSHIP

A. The Contractor shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect work whenever such covering is necessary, or if

so requested by the City. Any unwanted paint shall be carefully removed without damage to any finished paint or surface. If damage occurs, the entire surface, adjacent to and including the damaged area, shall be repainted without visible lapmarks and without additional cost to the City.

B. Painting found defective shall be scraped or sandblasted off and repainted as the City may direct. Before final acceptance of the work, damaged surfaces of paint shall be cleaned and repainted as directed by the City.

1.12 ADDITIONAL PAINT

A. At the end of the project, the Contractor shall turn over to the City a one gallon can (single component material) or small kit (multi component material – minimum of one gallon yield) of each type and color of paint, primer, thinner or other coating used in the field painting. The material shall be delivered in unopened, labeled cans as it comes from the factory. The manufacturer's literature describing the materials and giving directions for their use shall be furnished in three bound copies. A type-written inventory list shall be furnished at the time of delivery.

1.13 SHIPPING, HANDLING AND STORAGE

A. All painting materials shall be brought to the job site in the original sealed labeled containers of the paint manufacturer and shall be subject to review by the Engineer. Where thinning is necessary, only the product of the manufacturer furnishing the paint shall be used. All such thinning shall be done strictly in accordance with the manufacturer's instructions, and with the full knowledge of the Engineer.

B. Materials and their storage shall be in full compliance with the requirements of pertinent codes and fire regulations. Receptacles shall be placed outside buildings for paint gates and containers. Paint waste shall not be disposed of in plumbing fixtures, process drains or other plant systems or process units.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Table 09900-1 depicts the coatings referenced in Article 3.03 of this Section entitled, "Paint Schedule". Table 09900-1 lists Tnemec, Carboline, and Sherwin-Williams products as a reference. Equivalent products by the Manufacturer’s listed in Article 1.04 of this Section may be submitted for review.

TABLE 09900-1
PRODUCT LISTING

PROJECT #12082 – VICTORIA PARK STORMWATER IMPROVEMENTS

Ref. No.	Description	Manufacturer's Reference		
		Tnemec	Carboline	Sherwin-Williams
101	Waterborne Polyamine Epoxy	151-1051 ElastoGrip FC	Sanitile 120	Loxon Conditioner
102	Water Based Block Filler	1254 Epoxoblock WB	Sanitile 100	Corobond 300
103	Modified Polyamidoamine Epoxy	135 – Color	Carboguard 890 – Color	Macropoxy 646
104	Polyamidoamine Epoxy Primer	N69 – 1211	Carboguard 890 – 0500	Macropoxy 646
105	Polyamidoamine Epoxy	N69 – Color	Carboguard 890 – Color	Macropoxy 646
106	Coal Tar epoxy	46H-413 Hi-Build Tneme-Tar	Bitumastic 300M	Hi-Mil Sher Tar Epoxy
107	Waterborne Acrylic Epoxy	113-Color	Sanitile 255 – Color	Hi-Bild WB Catalyzed Epoxy
110	Aliphatic Acrylic Polyurethane	1095 – Color	Carbothane 133HB – Color	Acrolon Ultra
111	Modified Waterborne Acrylate	156 - Envirocrete (Smooth Texture)	Flexxide Elastomer	Loxon XP
114	Acrylic Concrete Primer	6 Tneme-Cryl	Sanitile 120	Loxon Conditioner
115	Aromatic Urethane / Epoxy Zinc Rich	90-97 Tneme-Zinc	Carbozinc 859	Corothane I Galvapac
116	Water repellent	668 Chemprobe Deck A Pell 40	Carbocrete Sealer WB	H&C SL-40
118	Epoxy Modified Cementitious Mortar	218 MortarClad	Carboguard 510 SG	Corobond 300
119	Cycloaliphatic Amine Epoxy	104 H.S. Epoxy	Carboguard 893 (Non-immersion) Phenoline 385 (Immersion)	Tank Clad HS
121	Organic Zinc	90-97 Tneme-Zinc	Carbozinc 85	Zinc Clad 4100

PART 3 – EXECUTION

3.01 SURFACE PREPARATION

A. General

1. Surfaces to be painted shall be clean and dry, and free of dust, rust, scale and all foreign matter. No solvent cleaning, power or hand tool cleaning shall be permitted unless acceptable to the Engineer or specified herein.

2. Threaded portions of valve and gate stems, machined surfaces which are limited for sliding contact, surfaces which are to be assembled against gaskets, surfaces or shafting on which sprockets are to fit, or which are intended to fit into bearings, machined surfaces of bronze trim on slide gates and similar surfaces shall be masked off to protect them from the sandblasting of adjacent surfaces. Cadmium-plated or galvanized items shall not be sandblasted unless hereinafter specified, except that cadmium-plated, zinc-plated, or sherardized fasteners used in assembly of equipment to the sandblasted shall be sandblasted in the same manner as the unprotected metal. All installed equipment, mechanical drives, and adjacent painted equipment shall be protected from sandblasting. Protection shall prevent any sand or dust from entering the mechanical drive units or equipment where damage could be caused.

3. Hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place prior to cleaning and painting, and not intended to be painted, shall be protected or removed during painting operations and repositioned upon completion of painting operations.

4. Examine surfaces to be coated to determine that surfaces are suitable for specified surface preparation and painting. Report to Engineer surfaces found to be unsuitable in writing. Do not start surface preparation until unsuitable surfaces have been corrected. Starting surface preparation precludes subsequent claim that such surfaces were unsuitable for the specified surface preparation or painting.

5. Surface preparation shall be in accordance with specifications and manufacturer's recommendations. Provide additional surface preparation, and fill coats where manufacturer recommends additional surface preparation, in addition to requirements of specification.

6. Touch-up shop or field applied coatings damaged by surface preparation or any other activity, with the same shop or field applied coating; even to the extent of applying an entire coat when required to correct damage prior to application of the next coating. Touch up coats are in addition to the specified applied systems, and not considered a field coat.

7. Protect motors and other equipment during blasting operation to ensure blasting material is not blown into motors or other equipment. Inspect motors and other equipment after blasting operations and certify that no damage occurred, or where damage occurred, the proper remedial action was taken.

8. Sand from sandblasting shall be thoroughly removed, using a vacuum cleaner if necessary. No surface which has been sandblasted shall be painted until inspected by the Engineer.

B. Metal Surfaces

1. Except as otherwise provided, all preparation of metal surfaces shall be in accordance with Specifications SP-1 through SP-10 of the Society for Protective Coatings (SSPC). Where the Society for Protective Coatings Specifications are referred to in these Contract Documents, the corresponding Pictorial Surfaces Preparation Standard shall be used to define the minimum final surface conditions to be supplied. Grease and oil shall be removed and the surface prepared by hand tool cleaning, power tool cleaning or blast cleaning in accordance with the appropriate Specification SP-1 through SP-30.

2. Perform blast cleaning operations for metal when following conditions exist:

   a. Moisture is not present on the surface.

   b. Relative humidity is below 80%.

   c. Ambient and surface temperatures are 5°F or greater than the dew point temperature.

   d. Painting or drying of paint is not being performed in the area.

   e. Equipment is in good operating condition.

   f. Proper ventilation, illumination, and other safety procedures and equipment are being provided and followed.

3. Weld flux, weld spatter and excessive rust scale shall be removed by power tool cleaning as per SSPC-SP-3.

4. All ferrous metal surfaces not required to be galvanized shall be cleaned of all oil grease, dirt, rust and tight and loose mill scale by blasting in accordance with the following: SSPC-SP 5 White Metal Blast Cleaning and comply with the visual standard NACE No. 1, for shop prepared and shop primed metal to be submerged or in a corrosive environment, SSPC-SP10 Near White Metal Blast Cleaning, and comply with the visual standard NACE No. 2 for field prepared metal to be submerged or in a corrosive environment, SSPC-SP6 and comply with the visual standard NACE No. 3 for metal in all other locations. Steel sheet piles shall receive surface preparation in accordance with SSPC-SP 10 Near White Metal Blast Cleaning with the visual standard NACE No. 2 with a minimum angular anchor profile of 1.5 - 2.0 mils or other stringent recommendations from paint manufacturer. Pickling, complying with SSPC-SP 8, may be substituted for Near White Blast in areas as determined by the Engineer. Priming shall follow sandblasting before any evidence of corrosion occurs, before nightfall and before any moisture is on the surface.

5. Field surface preparation of small, isolated areas such as field welds, repair of scratches, abrasions or other marks to the shop prime or finish shall be cleaned by

power tools in accordance with SSPC-SP 3, or in difficult and otherwise inaccessible areas by hand cleaning in accordance with SSPC-SP 2 and spot primed.

6. All coated surfaces shall be cleaned prior to application of successive coats. All non ferrous metals not to be coated shall be cleaned. This cleaning shall be done in accordance with SSPC-SP 1, Solvent Cleaning.

7. All shop coated surfaces shall be protected from damage and corrosion before and after installation by treating damaged areas immediately upon detection. Abraded or corroded spots on shop coated surfaces shall be prepared in accordance with SSPC-SP 2, Hand Tool Cleaning and then touched up with the same materials as the shop coat.

8. All shop coated surfaces which are faded, discolored, or which require more than minor touch up, in the opinion of the Engineer, shall be repainted. Cut edges of galvanized sheets, electrical conduit, and metal pipe sleeves, not to be finish painted, shall be cleaned in accordance with SSPC-SP 1, Solvent Cleaning and primed with zinc dust zinc oxide metal primer.

C. Concrete Surfaces

1. Concrete surfaces are to be cured for at least 28 days prior to surface preparation, unless coatings are recommended for application over green concrete surfaces.

2. Test concrete for moisture content, pH and salts using test method recommended by the paint manufacturer. Do not begin surface preparation, or painting until moisture content is acceptable to manufacturer.

3. Non-submerged concrete and masonry surfaces to be painted shall be prepared by removing efflorescence, chalk, dust, dirt, grease, oil, form coating, tar and by roughening to remove glaze. All surfaces shall be repaired prior to commencement of the coating operation.

4. Concrete immersion surfaces that are to be coated shall be prepared in accordance to SSPC-SP13/NACE No. 6 to remove all laitance, curing compounds, hardeners, sealers, and other contaminants, and to provide a minimum surface profile. Refer to manufacturer’s recommendation for specific coating being applied and adhere to ICRI Concrete Surface Preparation Profiles (CSP 1-10) when reviewing concrete surface preparation. Areas of concrete which contain bug holes or voids shall be filled with the manufacturer's approved filler material.

D. Exposed Pipe, Valves and Pumps

1. Bituminous coated pipe shall not be used in exposed locations. Pipe which shall be exposed after project completion shall be primed in accordance with the requirements herein. Any bituminous coated ferrous pipe which is inadvertently installed in exposed locations shall be sandblasted to SSPC SP 5 White Metal before priming and painting.

2. After installation and prior to finish painting, all exterior, exposed flanged joints shall have the gap between adjoining flanges and gaps between the pipe wall and threaded-on flanges sealed with a single component Thiokol caulking to prevent rust stains.

E. PVC Pipe Surfaces

1. All pipe surfaces shall be cleaned and lightly sanded before painting.

F. Existing Painted Surfaces

1. Totally remove existing paint when: surface is to be submerged in a severe environment, paint is less than 75% intact, brittle, eroded or has underfilm rusting.

2. Surfaces which are greater than 75% intact require removal of failed paints and then spot primed. Spot priming is in addition to coats specified.

3. Remove surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers.

4. Clean and dull glossy surfaces prior to painting in accordance with the manufacturer's recommendations.

5. Check existing paints for compatibility with new paint system. If incompatible, totally remove existing paint system or apply a barrier coat recommended by the paint manufacturer. Remove existing paints of undetermined origin. Prepare a test patch of approximately 3 square feet over existing paint. Allow test patch to dry thoroughly and test for adhesion. If proper adhesion is not achieved remove existing paint and repaint.

3.02 SHOP PAINTING

A. All fabricated steel work and equipment shall receive at the factory at least one shop coat of prime paint compatible with the paint system required by these Specifications. The Contractor shall coordinate all shop priming to ensure compatibility with paint system specified. Surface preparation prior to shop painting shall be as specified herein. Finish coats may be applied in the shop if acceptable to the Engineer. All shop painted items shall be properly packaged and stored until they are incorporated in the Work. Any painted surfaces that are damaged during handling, transporting, storage or installation shall be cleaned, scraped, and patched before field painting begins so that Work shall be equal to the original painting received at the shop. Equipment or steel Work that is to be assembled on the site shall likewise receive a minimum of one shop coat of paint at the factory. Surfaces of exposed members that will be inaccessible after erection shall be prepared and painted before erection.

B. The Contractor shall specify the shop paints to be applied when ordering equipment in order to assure compatibility of shop paints with field paints. The paints and surface preparation used for shop coating shall be identified on shop drawings submitted to the Engineer for review. Shop paint shop drawings will not be reviewed until the final project paint system has been submitted by the Contractor and reviewed by the Engineer.

C. Shop finish coats may be the standard finish as ordinarily applied by the manufacturer if it can be demonstrated to the Engineer that the paint system is equal to and compatible with the paint system specified. However, all pumps, motors and other equipment shall receive at least one field applied finish coat after installation.

3.03 PAINT SCHEDULE

A. The Contractor shall adhere to this paint schedule, providing those paints named or equal. DFT shall mean the minimum dry film thickness per application measured in mils. Products are referenced by numbers listed in table 09900-1 in Article 2.01 of this Section entitled "Product Listing." The paint schedule identifies the minimum DFT required per coat. If the Contractor does not achieve the specified DFT range in a single coat, he shall provide additional coats as necessary at no additional cost to the City.

B. Steel Sheet Piling

1. Steel sheet piling used for seawalls

a. Surface preparation per SSPC-SP 10 / NACE No. 2 Near White Metal Blast Cleaning with a minimum angular anchor profile of 1.5 – 2.0 mils or other stringent recommendations from paint manufacturer.

b. Apply organic zinc-rich primer to all surfaces of sheet piling.

c. Apply coal tar epoxy to all surfaces of sheet piling.

Application	No.	Description	DFT
First - 1 coat	121	Organic Zinc-Rich Primer	3.0 – 3.5
Second - 1 coat	106	Coal Tar Epoxy	8.0 - 12.0
Finish - 1 coat	106	Coal Tar Epoxy	8.0 - 12.0
		Min. Total	19.0 Mils

C. Metal Surfaces, Atmospheric (Exterior) Exposure

1. Metal surfaces exposed to the atmosphere that do not come into contact with corrosive atmosphere including the following types of surfaces shall be painted as described below:

~~a. Pumps, motors, process equipment, machinery, etc.~~

~~b.~~a. Above ground piping, valves~~, and~~ pipe supports, and other mechanical assembly~~.~~

~~c.~~b. Miscellaneous steel shapes, angles, etc.

~~d.~~c. Exposed surfaces of conduit, ductwork, etc.

~~e.~~d. Exposed non-factory painted surfaces of electric~~ panels, air conditioning units~~al and instrumentation equipment, etc.

Ferrous Metal

Application	No.	Description	DFT
First -1 coat	104	Polyamidoamine Epoxy Primer	3.0 - 5.0
Second - 1 coat (*)	105	Polyamidoamine Epoxy	2.0 - 3.0

Finish - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	10.0 Mils

(*) Broadcast 50 mesh silica sand while still wet over entire digester cover area.

Non-Ferrous Metal

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	6.0 Mils

Galvanized

Application	No.	Description	DFT
Spot Repair	115	Aromatic Urethane / Epoxy Zinc-Rich (spot)	2.5 - 3.5
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	6.0 Mils

D. Metal Surfaces, Submerged Exposure

1. Metal surfaces that are submerged shall be painted as described below:

a. Pumps, motors, process equipment, and associated hardware, including but not limited to discharge column and elbow, brackets, formed suction intake, etc.

b. Intake structure bar screen trash rake

~~–~~c. Manatee grates

Application	No.	Description	DFT
Stripe coat	119	Cycloaliphatic Amine Epoxy	3.0 – 5.0
First – 1 coat	119	Cycloaliphatic Amine Epoxy	4.0 – 6.0
Finish - 1 coat	119	Cycloaliphatic Amine Epoxy	4.0 – 6.0
		Min. Total (excluding stripe coat)	10.0 Mils

~~E. Metal Surfaces, Interior Exposure~~

~~1. Interior metal surfaces (nonsubmerged) that do not come in contact with corrosive atmosphere including the following types of surfaces shall be painted as follows:~~

~~a. Pumps, motors, process equipment, machinery, etc.~~

~~b. Piping, valves and supports.~~

~~c. Miscellaneous steel shapes, angles, rails, etc.~~

~~d. Exposed surfaces of conduit, ductwork, etc.~~

~~Application~~	~~No.~~	~~Description~~	~~DFT~~
~~First - 1 coat~~	~~104~~	~~Polyamidoamine Epoxy Primer~~	~~3.0 - 5.0~~
~~Finish - 1 coat~~	~~105~~	~~Polyamidoamine Epoxy~~	~~4.0 - 6.0~~
		~~Min. Total~~	~~9.0 Mils~~

~~F.~~E. Ductile Iron Pipe, Exterior or Interior Exposure

1. Ductile iron pipe exterior or interior exposure shall receive the following types of paint:

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	6.0 - 10.0
Finish - 1 coat	110	Aliphatic Acrylic Polyurethane	3.0 - 5.0
		Min. Total	12.0 Mils

~~G.~~F. PVC Pipes, Exterior or Interior Exposure

1. PVC pipes, valves, and accessories, shall receive the following types of paint:

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Finish - 1 coat	110	Aliphatic Acrylic Polyurethane	3.0 - 4.0
		Min. Total	6.0 Mils

~~H.~~G. New Concrete, Masonry and Stucco, Exterior Exposure

1. The exterior above grade concrete, masonry, and stucco surfaces of all new structures shall receive the following:

a. Electrical equipment platform

~~.~~b. All other exterior exposure concrete surfaces, including but not limited to steps, landings, walkways, slabs, housekeeping pads, etc.

Surface preparation: Surface shall be clean and dry without efflorescence, chalk, dust, dirt, grease, oil, form coating, and tar. Allow concrete to cure for 28 days.

Application	No.	Description	DFT
Block Filler (*)	102	Water Based Epoxy Block Filler	100-150 SF/Gal
Primer (**)	114	Acrylic Concrete Primer	300-400 SF/Gal
First - 1 coat	111	Modified Waterborne Acrylate	4.0 - 6.0
Finish - 1 coat	111	Modified Waterborne Acrylate	4.0 - 6.0

		Min. Total	10.0 Mils

(*) Block filler only to be used on new CMU
(**) Concrete primer for non-CMU applications

~~I. New Concrete and Masonry Surfaces, Interior Exposure~~

~~1. Interior exposed masonry and concrete wall and ceiling surfaces, including beam and column surfaces of all new non-water retaining structures shall be painted as follows:~~

~~Surface preparation: Surface shall be clean and dry without efflorescence, chalk, dust, dirt, grease, oil, form coating, and tar. Allow concrete to cure for 28 days.~~

~~Application~~	~~No.~~	~~Description~~	~~DFT~~
~~Block Filler (*)~~	~~102~~	~~Water Based Epoxy Block Filler~~	~~100-150 SF/Gal~~
~~Primer (**)~~	~~114~~	~~Acrylic Concrete Primer~~	~~300-400 SF/Gal~~
~~First - 1 coat~~	~~105~~	~~Polyamidoamine Epoxy~~	~~4.0 - 6.0~~
~~Finish - 1 coat~~	~~105~~	~~Polyamidoamine Epoxy~~	~~4.0 - 6.0~~
		~~Min. Total~~	~~10.0 Mils~~

~~**Block Filler shall only be used on new masonry.*~~

~~*** Concrete primer for non-CMU applications*~~

~~J.~~H. Existing or New Concrete Surfaces, Submerged Exposure:

1. Existing or new concrete surfaces submerged in stormwater, including but not limited to the following types of surfaces, shall be painted as described below:

   a. Interior of ~~wet wells~~pump station wet well, intake and discharge structures

   b. Interior of intake structures

   c. Interior of effluent boxes

Application	No.	Description	DFT
First - 1 coat	106	Epoxy, coat tar, thinned	6.0 - 8.0
Finish - 1 coat	106	Epoxy, coat tar, (Hi-Build)	14.0 – 20.0
		Min. Total	20.0 Mils

~~K.~~L. Concrete Surfaces, Buried Exposure:

1. The exterior surfaces of cast-in-place concrete walls and precast concrete structures from the top of the footing up to six inches below finished grade shall be painted as follows:

   a. Exterior of pump station wet well, intake and discharge structures

Application	No.	Description	DFT
First - 1 coat	106	Epoxy, coal tar, thinned	6.0 - 8.0
Finish - 1 coat	106	Epoxy, coal tar, thinned	14.0 – 20.0
		Min. Total	20.0 Mils

J. Concrete Surfaces, Intermittent Submerged Exposure:

1. Existing or new concrete surfaces intermittently submerged in stormwater, including but not limited to the following types of surfaces, shall be painted as described below:

a. Seawall concrete cap

Application	No.	Description	DFT
First - 1 coat	119	Cycloaliphatic Amine Epoxy	6.0 – 10.0
Finish - 1 coat	119	Cycloaliphatic Amine Epoxy	6.0 – 10.0
		Min. Total	16.0 Mils

3.04 PAINTING

A. Application: All paint shall be applied by experienced painters with brushes or other applicators acceptable to the Engineer.

1. Paint shall be applied without runs, sags, thin spots, or unacceptable marks. Paints shall be applied at the rate specified by the manufacturer to achieve the minimum dry mil thickness required. Additional coats of paint shall be applied, if necessary, to obtain thickness specified.

2. Paint shall be applied with spraying equipment only on those surfaces approved by the Engineer. If the material has thickened or must be diluted for application by spray gun, each coat shall be built up to the same film thickness achieved with undiluted brushed on material. Where thinning is necessary, only the products of the particular manufacturer furnishing the paint shall be used; and all such thinning shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the Engineer.

3. Surfaces not accessible to brushes or rollers may be painted by spray by dauber or sheepskins and paint mitt. If any of these methods is to be used, it shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the Engineer.

B. Drying Time: A minimum of twenty four hours drying time shall elapse between applications of any two coats of paint on a particular surface unless shorter time periods

are a requirement of the manufacturer or specified herein. Longer drying times shall be required for abnormal conditions as defined by the manufacturer.

C. Weather Restrictions: No painting whatsoever shall be accomplished in rainy or excessively damp weather when the relative humidity exceeds 85 percent, or when the general air temperature cannot be maintained at 50 degrees Fahrenheit or above throughout the entire drying period. No paint shall be applied when it is expected that the relative humidity will exceed 85 percent or that the air temperature will drop below 50 degrees Fahrenheit within 18 hours after the application of the paint.

1. Dew or moisture condensation should be anticipated; and if such conditions are prevalent, painting shall be delayed until midmorning to be certain the surfaces are dry. The day's painting shall be completed well in advance of the probable time of day when condensation will occur.

D. Inspection of Surfaces

1. Surface preparation and every field coat of priming and finishing paint shall be inspected by the Engineer or his/her authorized representative before the succeeding coat is applied. The Contractor shall follow a system of tinting successive paint coats so that no two coats for a given surface are exactly the same color. Areas to receive black protective coatings shall in such cases be tick marked with white or actually gauged as to thickness when finished.

2. Before application of the prime coat and each succeeding coat, any defects or deficiencies in the prime coat or succeeding coat shall be corrected by the Contractor before application of any subsequent coating.

3. Samples of surface preparation and of painting systems shall be furnished by the Contractor to be used as a standard throughout the job, unless omitted by the Engineer.

4. When any appreciable time has elapsed between coatings, previously coated areas shall be carefully inspected by the Engineer, and where, in his opinion, surfaces are damaged or contaminated, they shall be cleaned and recoated at the Contractor's expense. Recoating times of manufacturer's printed instructions shall be adhered to.

5. Coating thickness shall be verified by the use of a dry film thickness digital gauge. Gauge shall be Elcometer 456 or equal and shall be properly calibrated. Coating thickness on non-metal surfaces shall be verified by the use of an ultrasonic gauge. Ultrasonic gauge shall be Positector 200 or equal. Gauges shall include the entire range of coating thicknesses required in this section.

6. The Contractor shall provide free of charge to the Engineer two new digital dry film gauges and two wet film gauges to be used to inspect coating by Engineer and Contractor. One gauge may be used by Contractor and returned each day to the Engineer. Engineer will return gauges to Contractor at completion of job.

7. Coatings shall pass a holiday detector test.

8. Determination of Film Thickness: Randomly selected areas, each of at least 107.5 contiguous square feet, totaling at least 5% of the entire control area shall be tested.

Within this area, at least 5 squares, each of 7.75 square inches, shall be randomly selected. Three readings shall be taken in each square, from which the mean film thickness shall be calculated. No more than 20 percent of the mean film thickness measurements shall be below the specified thickness. No single measurement shall be below 80 percent of the specified film thickness. Total dry film thickness greater than twice the specified film thickness shall not be acceptable. Areas where the measured dry film thickness exceeds twice that specified shall be completely redone unless otherwise approved by the Engineer. When measured dry film thickness is less than that specified additional coats shall be applied as required.

9. Holiday Testing: Holiday test painted ferrous metal surfaces which will be submerged in water or other liquids, or surfaces which are enclosed in a vapor space in such structures. Mark areas which contain holidays. Repair or repaint in accordance with paint manufacturer's printed instructions and retest.

    a. Dry Film Thickness Exceeding 20 Mils: For surfaces having a total dry film thickness exceeding 20 mils: Pulse-type holiday detector such as Tinker & Rasor Model AP-W, D.E. Stearns Co. Model 14/20, shall be used. The unit shall be adjusted to operate at the voltage required to cause a spark jump across an air gap equal to twice the specified coating thickness.

    b. Dry Film Thickness of 20 Mils or Less: For surfaces having a total dry film thickness of 20 mils or less: Tinker & Rasor Model M1 non-destructive type holiday detector, K-D Bird Dog, shall be used. The unit shall operate at less than 75-volts. For thicknesses between 10 and 20 mils, a non-sudsing type wetting agent, such as Kodak Photo-Flow, shall be added to the water prior to wetting the detector sponge.

E. Special Areas

1. All surfaces which are to be installed against concrete, masonry etc., and will not be accessible for field priming and/or painting shall be back primed and painted as specified herein, before erection. Anchor bolts shall be painted before the erection of equipment and then the accessible surfaces repainted when the equipment is painted.

F. Special attention shall be given to insure that edges, corners, crevices, welds and rivets receive a film thickness equivalent to that of the adjacent painted surfaces.

G. Safety

1. Respirators shall be worn by persons engaged or assisting in spray painting. The Contractor shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the Work.

H. Quality Workmanship

1. The Contractor shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect the Work whenever such covering is necessary, or if so requested by the City. Any unwanted paint shall be carefully removed without damage to any finished paint or surface. If damage does occur, the

entire surface, adjacent to and including the damaged area, shall be repainted without visible lap marks and without additional cost to the City.

I. Defective/Damaged Coating System

1. Painting found defective shall be scraped or sandblasted off and repainted as the Engineer or his/her authorized representative may direct. Before final acceptance of the Work, damaged surfaces of paint shall be cleaned and repainted as directed by the Engineer or his/her representative.

2. If the coating system is determined to require repair/field touch up, the Contractor shall strictly adhere to the approved repair plan procedure per article 1.05, D. Contractor shall notify the Engineer prior to commencing any surface preparation and coating repair in order to verify the affected zone. Painting shall not be performed if adverse conditions, such as rain or rising seawater, are expected.

J. Any pipe scheduled to be painted and having received a coating of a tar or asphalt compound shall be painted with two coats or "Intertol Tar Stop", "Tnemec Tar Bar" or equal before successive coats are applied in accordance with the paint schedule.

3.05 SCHEDULE OF COLORS

A. All colors shall be as designated by the Engineer at the shop drawing review. The Contractor shall submit color samples including custom color choices as required to the Engineer as specified in Article 1.05 of this Section. The Contractor shall submit suitable samples of all colors and finishes for the surfaces to be painted, or on portable surfaces when required by the Engineer. The Engineer shall decide upon the choice of colors and other finishes when alternates exist. No variation shall be made in colors without the acceptance from the City. Color names and/or numbers shall be identified according to the appropriate color chart issued by the manufacturer of the particular product in question.

B. All above ground water main piping shall be painted white with blue longitudinal striping.

C. All underground water main piping shall have continuous 4” blue longitudinal stripe.

D. All above ground force main piping shall be painted green.

3.06 OSHA SAFETY COLORS

A. Items listed in ANSI Z53.1-1971, Section 2.1 shall be painted ANSI Red. In general, these items shall include fire protection equipment and apparatus; wall mounted breathing apparatus, danger signs and locations; and stop bars, buttons or switches. In addition all hose valves and riser pipes, fire protection piping and sprinkler systems, and electrical stop switches shall be painted ANSI Red.

B. Items listed in ANSI Z53.1-1971, Section 2.3 shall be painted ANSI Yellow. Yellow shall be the basic color for designating caution and for marking physical hazards such as striking against, stumbling, falling, tripping, and "caught in between". In addition, an 8-inch wide strip on the top and bottom tread of stairways shall be coated.

3.07 WORK IN CONFINED SPACES

A. The Contractor shall provide and maintain safe working conditions for all employees. Fresh air shall be supplied continuously to confined spaces through the combined use of existing openings, forced draft fans, or by direct air supply to individual workers. Paint fumes shall be exhausted to the outside from the lowest level in the contained space.

B. Electrical fan motors shall be explosion proof if in contact with fumes. No smoking or open fires will be permitted in, or near, confined spaces where painting is being done.

3.08 CLEANING

A. The Work area shall be at all times kept free from accumulation of waste material and rubbish caused by the Work. At the completion of the painting, all tools, equipment, scaffolding, surplus materials, and all rubbish around the Work areas shall be removed and the Work left broom clean unless otherwise specified.

- END OF SECTION -

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB No. 461

TITLE: Victoria Park Stormwater Improvements

ADDENDUM NO.4

DATE: 07/11/2025

This addendum is being issued to make the following changes:

1. The Bid Due Date is hereby changed to Friday, July 18, 2025, at 2:00PM.

2. The following documents are hereby revised as indicated below:

- **Solicitation Document**

  Special Conditions, Section 08 - Specific Experience Required

  The following expertise is required to be considered for this Contract. Specific references attesting to this expertise must be submitted with the bid response.

  The contractor or its subcontractors shall have previous construction experience in constructing: stormwater drainage pipe ranging from 12 inches to 42 inches, cured in place pipe (CIPP) lining, water & sewer main pipe installation ranging from 6 inches to 12 inches, and seawalls using sheet pile installation (minimum depth of 30 feet) in the State of Florida within the last five (5) years. Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

  NOTE: REFERENCES SHALL NOT INCLUDE CITY OF FORT LAUDERDALE EMPLOYEES OR WORK PERFORMED FOR THE CITY. THE CITY IS ALSO INTERESTED IN WORK EXPERIENCE AND REFERENCES FROM ENTITIES OTHER THAN THE CITY OF FORT LAUDERDALE.

  By signing this bid solicitation, contractor is affirming that this expertise will be provided for this Contract at no additional charge.

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

- **Event 461 Victoria Park - Technical Specifications Part 1**

  - 01025 - Measurement and Payment, Section 1.03 Schedule of Prices Bid - Maintenance of Existing Drainage:

    Item 46 – Heavy Desilt/Water Jetting and CCTV of Existing Outfall Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and materials required to clean and televise the existing stormwater pipe within the project limits. For heavy desilting, Contractor shall assume existing drainage pipes are up to 70% full of silt and debris. This item includes, but is not limited to, submitting for City approval and executing storage and disposal plan for removed sand and debris prior to cleaning activities, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the sewer lines for clear viewing of the interior surface of the pipe during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks in pipe, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of pipe; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. Measurement for payment for cleaning/televising of drainage pipe will be based upon the number of linear feet of such pipe as determined by measurement along the centerline of the pipe in place, not including through structures, and shall be approved by the Engineer. The Contractor shall notify and provide documentation acceptable to the City if contaminated materials are suspected within the pipe

    Items 48 and 49 – Heavy Desilt/Water Jetting and CCTV of Existing Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and materials required to clean and televise the existing stormwater pipe within the project limits. For heavy desilting, Contractor shall assume existing drainage pipes are up to 70% full of silt and debris. This item includes, but is not limited to, submitting for City approval and executing storage and disposal plan for removed sand and debris prior to cleaning activities, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as

needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the sewer lines for clear viewing of the interior surface of the pipe during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks in pipe, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of pipe; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. Measurement for payment for cleaning/televising of drainage pipe will be based upon the number of linear feet of such pipe as determined by measurement along the centerline of the pipe in place, not including through structures, and shall be approved by the Engineer. The Contractor shall notify and provide documentation acceptable to the City in the event that contaminated materials are suspected within the pipe.

- 01025 - Measurement and Payment, Section 1.06 Allowances –
  C. Allowance Accounts

  3. Contaminated Soil and/or Groundwater Services: The allowance account for this item shall be full compensation for all labor, equipment, material, and work required for the sampling, testing, removal, treatment, and discharge of contaminated groundwater or contaminated sediments as required by all applicable regulatory agencies. This item includes, but is not limited to, preparing a sampling plan, collecting and preserving samples, performing laboratory analyses, preparing reports, ~~dewatering and necessary bypass pumping and/or diverting flow,~~ providing and operating treatment units, discharging treated groundwater, and all other work required to complete this task in conformance with applicable regulatory requirements. This item also includes full compensation for environmental containment measures should the results of laboratory sampling indicate contaminated groundwater. Any portion of this fund remaining after all authorized payments have been made will be withheld from contract payment and will remain with the City of Fort Lauderdale.

- Section 09900 Painting:

  This section is hereby replaced in its entirety. See new document attached "SECTION 09900 PAINTING".

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

- **EVENT 461 Victoria Park – Drawings Part2**

  Sheet No. PG-06, Sheet 104 is hereby replaced in its entirety. See new document attached "104 PAVING AND GRADING PLAN - PG-06".

- **EVENT 461 Victoria Park – Drawings Part3**

  Sheets No. DT-01, Sheet 129 through DT-18, Sheet 146 are hereby replaced in their entirety. See new document attached "129 STANDARD DETAILS SHEETS - DT 01 – DT-18".

All other terms, conditions and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: _____
(Please print)

Bidder's Signature: _____

Date: _____

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB No. 461

TITLE: Victoria Park Stormwater Improvements

ADDENDUM NO. 5

DATE: 07/17/2025

This addendum is being issued to: Extend Bid Close Date:

- **Bid Close Date Extended to Friday, August 8, 2025**

All other terms, conditions and specifications remain unchanged.

Paulette Hemmings Turner
Snr. Purchasing Specialist

Company Name: _____
(Please print)

Bidder's Signature: _____

Date: _____

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ITB No. 461

TITLE: Victoria Park Stormwater Improvements

ADDENDUM NO. 6

DATE: 07/29/2025

This addendum is being issued to make the following change:

1. The following document is hereby revised as indicated below:

- **Event 461 Victoria Park - Technical Specifications Part 1**
  - Section 09900 Painting:

    This section is hereby replaced in its entirety. See new document attached "SECTION 09900 PAINTING".

All other terms, conditions and specifications remain unchanged.

Erick Martinez
Snr. Purchasing Specialist

Company Name: _____
(Please print)

Bidder's Signature: _____

Date: _____

SECTION 09900 PAINTING

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish all labor, tools, materials, supervision and equipment necessary to do all the work specified herein and as required for a complete installation, including surface preparation, priming and painting of Contractor furnished equipment, materials, and structures.

B. Section includes:

1. Paint Materials
2. Shop Painting
3. Field Painting
    a. Surface Preparation
    b. Piping and Equipment Identification
    c. Schedule of Colors
    d. Work in Confined Spaces
    e. OSHA Safety Colors

1.02 GENERAL INFORMATION AND DESCRIPTION

A. The term "paint," as used herein, includes emulsions, enamels, paints, stains, varnishes, sealers, cement filler, cement epoxy fillers and other coatings, whether used as prime, intermediate, or finish coats.

B. All paint for concrete and metal surfaces shall be especially adapted for use in and around water and wastewater treatment facilities and shall be applied in conformance with the manufacturer's published specifications.

C. All paint for final coats shall be fume resistant, compounded with pigments suitable for exposure to sewage gases, especially to hydrogen sulfide and to carbon dioxide. Pigments shall be materials which do not tend to darken, discolor, or fade due to the action of sewage gases. If a paint manufacturer proposes use of paint which is not designated "fume resistant" in its literature, it shall furnish full information concerning the pigments used in this paint.

D. Provide primers and intermediate coats produced by same manufacturer as finish coat. Use only thinners approved by paint manufacturer, and only within manufacturer’s recommended limits.

E. Coatings used in conjunction with potable water supply systems shall have U.S. Environmental Protection Agency (EPA) and FDA approval for use with potable water and shall not impart a taste or odor to the water.

F. All building, facilities, structures, and appurtenances, as indicated on the Drawings and as specified herein, shall be painted with not less then one shop coat and two field coats, or one prime coat and two finish coats of the appropriate paint. Items to be painted include, but are not limited to, exterior and interior concrete, structural steel, miscellaneous metals, steel and aluminum doors and frames, concrete block, ductwork, sluice gates, operators, pipe fittings, valves, mechanical equipment, motors, conduit, and all other work which is obviously required to be painted unless otherwise specified.

G. Baked on enamel finishes and items with standard shop finishes such as graphic panels, electrical equipment, toilet partitions, lockers, instrumentation, etc., shall not be field painted unless the finish is damaged during shipment or installation. Aluminum, stainless steel, fiberglass and bronze work shall not be painted unless color coding and marking is required or otherwise specified. A list of surfaces not to be coated is included in Article 1.09 of this Section.

H. Ensure compatibility of total paint system for each substrate. Test shop primed equipment delivered to the site for compatibility with final paint system. Provide an acceptable barrier coat or totally remove shop applied paint system when incompatible with system specified, and repaint with specified paint system.

I. The Contractor shall obtain all permits, licenses and inspections and shall comply with all laws, codes, ordinances, rules and regulations promulgated by authorities having jurisdiction which may bear on the work. This compliance will include Federal Public Law 91-596 more commonly known as the "Occupational Safety and Health Act of 1970".

1.03 REFERENCE SPECIFICATION, CODES AND STANDARDS

A. Without limiting the generality of these specifications the Work shall conform to the applicable requirements of the following documents:

1. SSPC - The Society for Protective Coatings Standards

a.	SSPC-Vis 1	Pictorial Surface Preparation Standards for Painting Steel Structures
b.	SSPC-SP2	Hand Tool Cleaning
c.	SSPC-SP3	Power Tool Cleaning
d.	SSPC-SP5	(NACE No. White Metal Blast Cleaning
e.	SSPC-SP6	(NACE No. Commercial Blast Cleaning
f.	SSPC-SP10	(NACE No. Near-White Metal Blast
g.	SSPC-SP13	(NACE No. 6) Surface Preparation of Concrete

2. NACE - National Association of Corrosion Engineers

3. ASTM D1737 - Test Method for Elongation of Attached Organic Coatings with Cylindrical Mandrel Apparatus

4. ASTM B117 - Method of Salt Spray (Fog) Testing

5. ASTM D4060 - Test Method for Abrasion Resistance of Organic Coating by the Taber Abraser

6. ASTM D3359 - Method for Measuring Adhesion by Tape Test

1.04 MANUFACTURERS

A. All painting materials shall be as manufactured by Tnemec, Carboline, Sherwin Williams, or equal.

1.05 SUBMITTALS

A. The Contractor shall submit paint manufacturer's data sheets, application instructions, and samples of each finish and color to the Engineer for review, before any work is started in accordance with Section 01300 entitled, "Submittals."

B. Submitted samples of each finish and color shall be prepared in a step-down format so that the area of each sample indicates the appearance of the various coats. For example, where a three-coat system is specified, the sample shall be divided into three areas indicating one coat only, two coats and all three coats. The Engineer will provide written authorization constituting a standard, as to color and finish only, for each coating system.

C. The Contractor shall prepare a complete schedule of surfaces to be coated and shall identify the surface preparation and paint system proposed for use. The Paint Schedule shall be in conformance with Article 3.03 of this Section. The schedule shall contain the name of the paint manufacturer, and the name, address, email address and telephone number of the manufacturer’s representative that will inspect the Work, and/or the certified NACE Level 2 (or higher) inspectors assigned by the manufacturer that will inspect the Work of the steel sheet pile coating. The schedule shall be submitted to the Engineer for review as soon as possible following the Notice to Proceed. The manufacturer shall submit a letter stating that the paint systems are proper for the exposure and service. If applicable, the manufacturer shall recommend improvements to the paint system specified, specific to the products being furnished.

D. Certifications of NACE Level 2 (or higher) inspectors (for seawall steel sheet pile coating).

E. For the seawall steel sheet pile coating, submit a coating repair plan procedure provided by the paint manufacturer. The repair plan procedure shall consist of surface preparation and a compatible painting system equal to or better than the original painting system that will be applied in the field. Submit the corresponding paint manufacturer’s data sheets and application instructions.

F. Name and detailed qualifications of the protective coating applicator or subcontractor. Qualifications shall include, but not be limited to, five (5) project references which show that the painting applicator or subcontractor has previous successful experience with the specified or comparable coating systems, a list of installations that are currently in service and documentation that applicator or subcontractor is currently a qualified applicator of

the proposed coatings by the manufacturer. Include the name, address and telephone number of the owner of each installation for which the coating applicator provided the coating.

1.06 SERVICES OF MANUFACTURER'S REPRESENTATIVE

A. The Contractor shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a representative to inspect the application of his product both in the shop and field. The Contractor, through the manufacturer's representative, shall submit his report to the Engineer at the completion of his Work identifying the products used and verifying that said products were properly applied and that the paint systems were proper for the exposure and service.

B. For the seawall steel sheet pile, the Contractor shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a certified NACE Level 2 (or higher) inspector, to provide continuous inspection of the application of the products and to provide an inspection report of all elements painted. Certification of all NACE Level 2 (or higher) inspectors shall be submitted for review prior to surface preparation and painting. The inspection report shall be submitted at the completion of painting. The report shall reference each structural element, identify the products used and verify they were applied in conformance with the contract documents.

C. Services shall also include, but not be limited to, inspecting prior coatings of paint, determination of best means of surface preparation, inspection of complete work, and re-inspection of painted work to be performed six months after the job is completed.

1.07 MANUFACTURER'S INSTRUCTIONS

A. The manufacturer's published instructions for use as a guide in specifying and applying the manufacturers proposed paint shall be submitted to the Engineer. Paint shall not be delivered to the job before acceptance of the manufacturer's instructions is given by the Engineer.

B. A manufacturer's paint will not be considered for use unless that manufacturer's published instructions meets the following requirements:

1. The instructions must have been written and published by the manufacturer for the purpose and with the intent of giving complete instruction for the use and application of the proposed paint in the locality and for the conditions for which the paint is specified or shown to be applied under this Contract.

2. All limitations, precautions, and requirements that may adversely affect the paint; that may cause unsatisfactory results after the painting application; or that may cause the paint not to serve the purpose for which it was intended; that is, to protect the covered material from corrosion, shall be clearly and completely stated in the instructions. These limitations and requirements shall, if they exist, include, but not be limited to the following:

a. Methods of application

b. Number of coats

c. Thickness of each coat

d. Total thickness

e. Drying time of each coat, including primer

f. Primer required to be used

g. Primers not permitted

h. Use of a primer

i. Thinner and use of thinner

j. Temperature and relative humidity limitations during application and after application

k. Time allowed between coats

l. Protection from sun

m. Physical properties of paint including solids content and ingredient analysis

n. Surface preparation

o. Touch up requirements and limitations

C. Concrete surfaces specified by the paint manufacturer to be acid etched shall be etched in accordance with the manufacturer's instructions. The surface shall then be thoroughly scrubbed with clean water, rinsed, and allowed to dry. The surface shall be tested with a moisture meter to determine when dry before coating. The surface shall also be tested for pH to determine the acid has been properly neutralized.

1.08 QUALITY ASSURANCE

A. The Contractor shall give the Engineer a minimum of three days advance notice of the start of any field surface preparation work of coating application work.

B. All such Work shall be performed only in the presence of the Engineer, unless the Engineer has specifically allowed the performance of such Work in his absence.

C. Review by the Engineer, or the waiver of review of any particular portion of the Work, shall not relieve the Contractor of his responsibility to perform the Work in accordance with these Specifications.

D. The Contractor shall provide references of the coating applicator or subcontractor per article 1.05, E.

1.09 SAFETY AND HEALTH REQUIREMENTS

A. In accordance with requirements of OSHA Safety and Health Standards for Construction (29CFR1926) and the applicable requirements of regulatory agencies having jurisdiction, as well as manufacturer's printed instructions, appropriate technical bulletins, manuals,

and material safety data sheets, the Contractor shall provide and require use of personnel protective and safety equipment for persons working in or about the project site.

B. Respirators shall be worn by persons engaged or assisting in spray painting. The Contractor shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the work.

C. All paint shall comply with all requirements of the Air Pollution Regulatory Acts concerning the application and formulation of paints and coatings for an area in which the paints are applied. Specifically, paints shall be reformulated as required to meet the local, State and Federal requirements.

1.10 SURFACES NOT TO BE COATED

A. The following items shall not be coated unless otherwise noted:

1. Encased piping or conduit.
2. Stainless steel work.
3. Clear PVC secondary containment piping.
4. Galvanized checkered plate.
5. Aluminum handrails, walkways, windows, louvers, grating and checkered plate.
6. Flexible couplings, lubricated bearing surfaces and insulation.
7. Packing glands and other adjustable parts of mechanical equipment.
8. Finish hardware.
9. Steel encased in concrete or masonry (except for seawall).
10. Plastic switch plates and receptacle plates.
11. Signs and nameplates.
12. Any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name or nomenclature plates.
13. Any moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sensing devices, motor and fan shafts, unless otherwise indicated.

1.11 QUALITY WORKMANSHIP

A. The Contractor shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect work whenever such covering is necessary, or if so requested by the City. Any unwanted paint shall be carefully removed without damage to any finished paint or surface. If damage occurs, the entire surface, adjacent to and including the damaged area, shall be repainted without visible lapmarks and without additional cost to the City.

B. Painting found defective shall be scraped or sandblasted off and repainted as the City may direct. Before final acceptance of the work, damaged surfaces of paint shall be cleaned and repainted as directed by the City.

1.12 ADDITIONAL PAINT

A. At the end of the project, the Contractor shall turn over to the City a one gallon can (single component material) or small kit (multi component material – minimum of one gallon yield) of each type and color of paint, primer, thinner or other coating used in the field painting. The material shall be delivered in unopened, labeled cans as it comes from the factory. The manufacturer's literature describing the materials and giving directions for their use shall be furnished in three bound copies. A type-written inventory list shall be furnished at the time of delivery.

1.13 SHIPPING, HANDLING AND STORAGE

A. All painting materials shall be brought to the job site in the original sealed labeled containers of the paint manufacturer and shall be subject to review by the Engineer. Where thinning is necessary, only the product of the manufacturer furnishing the paint shall be used. All such thinning shall be done strictly in accordance with the manufacturer's instructions, and with the full knowledge of the Engineer.

B. Materials and their storage shall be in full compliance with the requirements of pertinent codes and fire regulations. Receptacles shall be placed outside buildings for paint gates and containers. Paint waste shall not be disposed of in plumbing fixtures, process drains or other plant systems or process units.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Table 09900-1 depicts the coatings referenced in Article 3.03 of this Section entitled, "Paint Schedule". Table 09900-1 lists Tnemec, Carboline, and Sherwin-Williams products as a reference. Equivalent products by the Manufacturer’s listed in Article 1.04 of this Section may be submitted for review.

TABLE 09900-1
PRODUCT LISTING

Ref. No.	Description	Manufacturer's Reference		
		Tnemec	Carboline	Sherwin-Williams
101	Waterborne Polyamine Epoxy	151-1051 ElastoGrip FC	Sanitile 120	Loxon Conditioner
102	Water Based Block Filler	1254 Epoxoblock WB	Sanitile 100	Corobond 300
103	Modified Polyamidoamine Epoxy	135 – Color	Carboguard 890 – Color	Macropoxy 646
104	Polyamidoamine Epoxy Primer	N69 – 1211	Carboguard 890 – 0500	Macropoxy 646
105	Polyamidoamine Epoxy	N69 – Color	Carboguard 890 – Color	Macropoxy 646
106	Coal Tar	46-465	Bitumastic 300M	Hi-Mil Sher Tar Epoxy
107	Waterborne Acrylic Epoxy	113-Color	Sanitile 255 – Color	Hi-Bild WB Catalyzed Epoxy
110	Aliphatic Acrylic Polyurethane	1095 – Color	Carbothane 133HB – Color	Acrolon Ultra
111	Modified Waterborne Acrylate	156 - Envirocrete (Smooth Texture)	Flexxide Elastomer	Loxon XP
114	Acrylic Concrete Primer	N/A	Sanitile 120	Loxon Conditioner
115	Aromatic Urethane / Epoxy Zinc Rich	90-97 Tneme-Zinc	Carbozinc 859	Corothane I Galvapac
116	Water repellent	668 Chemprobe Deck A Pell 40	Carbocrete Sealer WB	H&C SL-40
118	Epoxy Modified Cementitious Mortar	N218 MortarClad	Carboguard 510 SG	Dura-Plate 2300
119	Cycloaliphatic Amine Epoxy	104 H.S. Epoxy	Carboguard 890 (Non-immersion) Phenoline 385 (Immersion)	Tank Clad HS
121	Organic Zinc	90-97 Tneme-Zinc	Carbozinc 859	Zinc Clad III HS
122	Glass Flake Reinforced Modified Polyamine Epoxy	142 Epoxoline	Carboguard 1209	Sher-Glass FF

PART 3 – EXECUTION

3.01 SURFACE PREPARATION

A. General

1. Surfaces to be painted shall be clean and dry, and free of dust, rust, scale and all foreign matter. No solvent cleaning, power or hand tool cleaning shall be permitted unless acceptable to the Engineer or specified herein.

2. Threaded portions of valve and gate stems, machined surfaces which are limited for sliding contact, surfaces which are to be assembled against gaskets, surfaces or shafting on which sprockets are to fit, or which are intended to fit into bearings, machined surfaces of bronze trim on slide gates and similar surfaces shall be masked off to protect them from the sandblasting of adjacent surfaces. Cadmium-plated or galvanized items shall not be sandblasted unless hereinafter specified, except that cadmium-plated, zinc-plated, or sherardized fasteners used in assembly of equipment to the sandblasted shall be sandblasted in the same manner as the unprotected metal. All installed equipment, mechanical drives, and adjacent painted equipment shall be protected from sandblasting. Protection shall prevent any sand or dust from entering the mechanical drive units or equipment where damage could be caused.

3. Hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place prior to cleaning and painting, and not intended to be painted, shall be protected or removed during painting operations and repositioned upon completion of painting operations.

4. Examine surfaces to be coated to determine that surfaces are suitable for specified surface preparation and painting. Report to Engineer surfaces found to be unsuitable in writing. Do not start surface preparation until unsuitable surfaces have been corrected. Starting surface preparation precludes subsequent claim that such surfaces were unsuitable for the specified surface preparation or painting.

5. Surface preparation shall be in accordance with specifications and manufacturer's recommendations. Provide additional surface preparation, and fill coats where manufacturer recommends additional surface preparation, in addition to requirements of specification.

6. Touch-up shop or field applied coatings damaged by surface preparation or any other activity, with the same shop or field applied coating; even to the extent of applying an entire coat when required to correct damage prior to application of the next coating. Touch up coats are in addition to the specified applied systems, and not considered a field coat.

7. Protect motors and other equipment during blasting operation to ensure blasting material is not blown into motors or other equipment. Inspect motors and other equipment after blasting operations and certify that no damage occurred, or where damage occurred, the proper remedial action was taken.

8. Sand from sandblasting shall be thoroughly removed, using a vacuum cleaner if necessary. No surface which has been sandblasted shall be painted until inspected by the Engineer.

B. Metal Surfaces

1. Except as otherwise provided, all preparation of metal surfaces shall be in accordance with Specifications SP-1 through SP-10 of the Society for Protective Coatings (SSPC). Where the Society for Protective Coatings Specifications are referred to in these Contract Documents, the corresponding Pictorial Surfaces Preparation Standard shall be used to define the minimum final surface conditions to be supplied. Grease and oil shall be removed and the surface prepared by hand tool cleaning, power tool cleaning or blast cleaning in accordance with the appropriate Specification SP-1 through SP-30.

2. Perform blast cleaning operations for metal when following conditions exist:

   a. Moisture is not present on the surface.

   b. Relative humidity is below 80%.

   c. Ambient and surface temperatures are 5°F or greater than the dew point temperature.

   d. Painting or drying of paint is not being performed in the area.

   e. Equipment is in good operating condition.

   f. Proper ventilation, illumination, and other safety procedures and equipment are being provided and followed.

3. Weld flux, weld spatter and excessive rust scale shall be removed by power tool cleaning as per SSPC-SP-3.

4. All ferrous metal surfaces not required to be galvanized shall be cleaned of all oil grease, dirt, rust and tight and loose mill scale by blasting in accordance with the following: SSPC-SP 5 White Metal Blast Cleaning and comply with the visual standard NACE No. 1, for shop prepared and shop primed metal to be submerged or in a corrosive environment, SSPC-SP10 Near White Metal Blast Cleaning, and comply with the visual standard NACE No. 2 for field prepared metal to be submerged or in a corrosive environment, SSPC-SP6 and comply with the visual standard NACE No. 3 for metal in all other locations. Steel sheet piles shall receive surface preparation in accordance with SSPC-SP 10 Near White Metal Blast Cleaning with the visual standard NACE No. 2 with a minimum angular anchor profile of 1.5 - 2.0 mils or other stringent recommendations from paint manufacturer. Pickling, complying with SSPC-SP 8, may be substituted for Near White Blast in areas as determined by the Engineer. Priming shall follow sandblasting before any evidence of corrosion occurs, before nightfall and before any moisture is on the surface.

5. Field surface preparation of small, isolated areas such as field welds, repair of scratches, abrasions or other marks to the shop prime or finish shall be cleaned by

power tools in accordance with SSPC-SP 3, or in difficult and otherwise inaccessible areas by hand cleaning in accordance with SSPC-SP 2 and spot primed.

6. All coated surfaces shall be cleaned prior to application of successive coats. All non ferrous metals not to be coated shall be cleaned. This cleaning shall be done in accordance with SSPC-SP 1, Solvent Cleaning.

7. All shop coated surfaces shall be protected from damage and corrosion before and after installation by treating damaged areas immediately upon detection. Abraded or corroded spots on shop coated surfaces shall be prepared in accordance with SSPC-SP 2, Hand Tool Cleaning and then touched up with the same materials as the shop coat.

8. All shop coated surfaces which are faded, discolored, or which require more than minor touch up, in the opinion of the Engineer, shall be repainted. Cut edges of galvanized sheets, electrical conduit, and metal pipe sleeves, not to be finish painted, shall be cleaned in accordance with SSPC-SP 1, Solvent Cleaning and primed with zinc dust zinc oxide metal primer.

C. Concrete Surfaces

1. Concrete surfaces are to be cured for at least 28 days prior to surface preparation, unless coatings are recommended for application over green concrete surfaces.

2. Test concrete for moisture content, pH and salts using test method recommended by the paint manufacturer. Do not begin surface preparation, or painting until moisture content is acceptable to manufacturer.

3. Non-submerged concrete and masonry surfaces to be painted shall be prepared by removing efflorescence, chalk, dust, dirt, grease, oil, form coating, tar and by roughening to remove glaze. All surfaces shall be repaired prior to commencement of the coating operation.

4. Concrete immersion surfaces that are to be coated shall be prepared in accordance to SSPC-SP13/NACE No. 6 to remove all laitance, curing compounds, hardeners, sealers, and other contaminants, and to provide a minimum surface profile. Refer to manufacturer’s recommendation for specific coating being applied and adhere to ICRI Concrete Surface Preparation Profiles (CSP 1-10) when reviewing concrete surface preparation. Areas of concrete which contain bug holes or voids shall be filled with the manufacturer's approved filler material.

D. Exposed Pipe, Valves and Pumps

1. Bituminous coated pipe shall not be used in exposed locations. Pipe which shall be exposed after project completion shall be primed in accordance with the requirements herein. Any bituminous coated ferrous pipe which is inadvertently installed in exposed locations shall be sandblasted to SSPC SP 5 White Metal before priming and painting.

2. After installation and prior to finish painting, all exterior, exposed flanged joints shall have the gap between adjoining flanges and gaps between the pipe wall and threaded-on flanges sealed with a single component Thiokol caulking to prevent rust stains.

E. PVC Pipe Surfaces

1. All pipe surfaces shall be cleaned and lightly sanded before painting.

F. Existing Painted Surfaces

1. Totally remove existing paint when: surface is to be submerged in a severe environment, paint is less than 75% intact, brittle, eroded or has underfilm rusting.

2. Surfaces which are greater than 75% intact require removal of failed paints and then spot primed. Spot priming is in addition to coats specified.

3. Remove surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mold, mildew, mortar, efflorescence, and sealers.

4. Clean and dull glossy surfaces prior to painting in accordance with the manufacturer's recommendations.

5. Check existing paints for compatibility with new paint system. If incompatible, totally remove existing paint system or apply a barrier coat recommended by the paint manufacturer. Remove existing paints of undetermined origin. Prepare a test patch of approximately 3 square feet over existing paint. Allow test patch to dry thoroughly and test for adhesion. If proper adhesion is not achieved remove existing paint and repaint.

3.02 SHOP PAINTING

A. All fabricated steel work and equipment shall receive at the factory at least one shop coat of prime paint compatible with the paint system required by these Specifications. The Contractor shall coordinate all shop priming to ensure compatibility with paint system specified. Surface preparation prior to shop painting shall be as specified herein. Finish coats may be applied in the shop if acceptable to the Engineer. All shop painted items shall be properly packaged and stored until they are incorporated in the Work. Any painted surfaces that are damaged during handling, transporting, storage or installation shall be cleaned, scraped, and patched before field painting begins so that Work shall be equal to the original painting received at the shop. Equipment or steel Work that is to be assembled on the site shall likewise receive a minimum of one shop coat of paint at the factory. Surfaces of exposed members that will be inaccessible after erection shall be prepared and painted before erection.

B. The Contractor shall specify the shop paints to be applied when ordering equipment in order to assure compatibility of shop paints with field paints. The paints and surface preparation used for shop coating shall be identified on shop drawings submitted to the Engineer for review. Shop paint shop drawings will not be reviewed until the final project paint system has been submitted by the Contractor and reviewed by the Engineer.

C. Shop finish coats may be the standard finish as ordinarily applied by the manufacturer if it can be demonstrated to the Engineer that the paint system is equal to and compatible with the paint system specified. However, all pumps, motors and other equipment shall receive at least one field applied finish coat after installation.

3.03 PAINT SCHEDULE

A. The Contractor shall adhere to this paint schedule, providing those paints named or equal. DFT shall mean the minimum dry film thickness per application measured in mils. Products are referenced by numbers listed in table 09900-1 in Article 2.01 of this Section entitled "Product Listing." The paint schedule identifies the minimum DFT required per coat. If the Contractor does not achieve the specified DFT range in a single coat, he shall provide additional coats as necessary at no additional cost to the City.

B. Steel Sheet Piling

1. Steel sheet piling used for seawalls

a. Surface preparation per SSPC-SP 10 / NACE No. 2 Near White Metal Blast Cleaning with a minimum angular anchor profile of 1.5 – 2.0 mils or other stringent recommendations from paint manufacturer.

b. Steel sheet piling used for seawalls shall be painted as described below:

Application	No.	Description	DFT
First - 1 coat	121	Organic Zinc-Rich Primer	2.5- 3.5
Second - 1 coat (+)	122	Glass Flake Polyamine Epoxy	16.0- 20.0
		Min. Total	18.5 Mils

(+) 2 coats for Sherwin Williams referenced product (35 mils total) due to abrasion resistance properties of this product

C. Metal Surfaces, Atmospheric (Exterior) Exposure

1. Metal surfaces exposed to the atmosphere that do not come into contact with corrosive atmosphere including the following types of surfaces shall be painted as described below:

a. Above ground piping, valves, pipe supports, and other mechanical assembly

b. Miscellaneous steel shapes, angles, etc.

c. Exposed surfaces of conduit, ductwork, etc.

d. Exposed non-factory painted surfaces of electrical and instrumentation equipment, etc.

Ferrous Metal

Application	No.	Description	DFT
First -1 coat	104	Polyamidoamine Epoxy Primer	3.0 - 5.0
Second - 1 coat (*)	105	Polyamidoamine Epoxy	2.0 - 3.0
Finish - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	10.0 Mils

(*) Broadcast 50 mesh silica sand while still wet over entire digester cover area.

Non-Ferrous Metal

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	6.0 Mils

Galvanized

Application	No.	Description	DFT
Spot Repair	115	Aromatic Urethane / Epoxy Zinc-Rich (spot)	2.5 - 3.5
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	110	Aliphatic Acrylic Urethane	3.0 - 4.0
		Min. Total	6.0 Mils

D. Metal Surfaces, Submerged Exposure

1. Metal surfaces that are submerged shall be painted as described below:

a. Pumps, motors, process equipment, and associated hardware, including but not limited to discharge column and elbow, brackets, formed suction intake, etc.

Application	No.	Description	DFT
Stripe coat	119	Cycloaliphatic Amine Epoxy	3.0 – 5.0
First – 1 coat	119	Cycloaliphatic Amine Epoxy	4.0 – 6.0
Finish - 1 coat	119	Cycloaliphatic Amine Epoxy	4.0 – 6.0
		Min. Total (excluding stripe coat)	10.0 Mils

E. Aluminum Surfaces, Exterior Exposure

1. Aluminum surfaces that are in direct contact with concrete (when no other dielectric isolation is used) shall be painted as described below:

a. Aluminum embedded in concrete including but not limited to access hatch frame, sleeves for guardrails, stair nosings, framing and brackets for grating, or guardrail base plates, brackets, etc.

Application	No.	Description	DFT
2 coats	106	Coal Tar	13.0
		Min. Total	26.0 Mils

F. Ductile Iron Pipe, Exterior or Interior Exposure

1. Ductile iron pipe exterior or interior exposure shall receive the following types of paint:

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	6.0 - 10.0
Finish - 1 coat	110	Aliphatic Acrylic Polyurethane	3.0 - 5.0
		Min. Total	12.0 Mils

G. PVC Pipes, Exterior or Interior Exposure

1. PVC pipes, valves, and accessories, shall receive the following types of paint:

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	2.0 - 3.0
Finish - 1 coat	110	Aliphatic Acrylic Polyurethane	3.0 - 4.0
		Min. Total	6.0 Mils

H. New Concrete, Masonry and Stucco, Exterior Exposure

1. The exterior above grade concrete, masonry, and stucco surfaces of all new structures shall receive the following:

   a. Electrical equipment platform vertical concrete surfaces

   b. All other exterior exposure vertical concrete surfaces, including but not limited to steps, landings, walkways, slabs, housekeeping pads, etc.

   Surface preparation: Surface shall be clean and dry without efflorescence, chalk, dust, dirt, grease, oil, form coating, and tar. Allow concrete to cure for 28 days.

Application	No.	Description	DFT
Block Filler (*)	102	Water Based Epoxy Block Filler	100-150 SF/Gal
Primer (**)	114	Acrylic Concrete Primer	300-400 SF/Gal
First - 1 coat	111	Modified Waterborne Acrylate	6.0 - 8.0
Finish - 1 coat	111	Modified Waterborne Acrylate	6.0 - 8.0
		Min. Total	12.0 Mils

(*) Block filler only to be used on new CMU

(**) Concrete primer for non-CMU applications when recommended by paint manufacturer

I. Existing or New Concrete Surfaces, Submerged Exposure:

1. Existing or new concrete surfaces submerged in stormwater, including but not limited to the following types of surfaces, shall be painted as described below:

   a. Interior of pump station wet well

b. Interior of pump station intake structure

c. Interior of pump station effluent box or discharge structure

Application	No.	Description	DFT
First - 1 coat	119	Cycloaliphatic Amine Epoxy	5.0 - 8.0
Second - 1 coat	119	Cycloaliphatic Amine Epoxy	5.0 - 8.0
Finish - 1 coat	119	Cycloaliphatic Amine Epoxy	5.0 - 8.0
		Min. Total	15.0 Mils

J. Concrete Surfaces, Buried Exposure:

1. The exterior surfaces of cast-in-place concrete walls and precast concrete structures from the top of the footing up to six inches below finished grade shall be painted as follows:

a. Exterior of pump station wet well, intake and discharge structures

Application	No.	Description	DFT
First - 1 coat	105	Polyamidoamine Epoxy	6.0 - 8.0
Second - 1 coat	105	Polyamidoamine Epoxy	6.0 - 8.0
Finish - 1 coat	105	Polyamidoamine Epoxy	6.0 – 8.0
		Min. Total	18.0 Mils

K. Concrete Surfaces, Intermittent Submerged Exposure:

1. Existing or new concrete surfaces intermittently submerged in stormwater, including but not limited to the following types of surfaces, shall be painted as described below:

a. Seawall concrete cap

Application	No.	Description	DFT
Stripe coat(***)	111	Modified Waterborne Acrylate	1.0 - 5.0
First - 1 coat	111	Modified Waterborne Acrylate	6.0 - 8.0
Finish - 1 coat	111	Modified Waterborne Acrylate	6.0 - 8.0
		Min. Total	12.0 Mils

(***) Stripe coat used to fill in hairline cracks

3.04 PAINTING

A. Application: All paint shall be applied by experienced painters with brushes or other applicators acceptable to the Engineer.

1. Paint shall be applied without runs, sags, thin spots, or unacceptable marks. Paints shall be applied at the rate specified by the manufacturer to achieve the minimum dry mil thickness required. Additional coats of paint shall be applied, if necessary, to obtain thickness specified.

2. Paint shall be applied with spraying equipment only on those surfaces approved by the Engineer. If the material has thickened or must be diluted for application by spray gun, each coat shall be built up to the same film thickness achieved with undiluted brushed on material. Where thinning is necessary, only the products of the particular manufacturer furnishing the paint shall be used; and all such thinning shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the Engineer.

3. Surfaces not accessible to brushes or rollers may be painted by spray by dauber or sheepskins and paint mitt. If any of these methods is to be used, it shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the Engineer.

B. Drying Time: A minimum of twenty four hours drying time shall elapse between applications of any two coats of paint on a particular surface unless shorter time periods are a requirement of the manufacturer or specified herein. Longer drying times shall be required for abnormal conditions as defined by the manufacturer.

C. Weather Restrictions: No painting whatsoever shall be accomplished in rainy or excessively damp weather when the relative humidity exceeds 85 percent, or when the general air temperature cannot be maintained at 50 degrees Fahrenheit or above throughout the entire drying period. No paint shall be applied when it is expected that the relative humidity will exceed 85 percent or that the air temperature will drop below 50 degrees Fahrenheit within 18 hours after the application of the paint.

1. Dew or moisture condensation should be anticipated; and if such conditions are prevalent, painting shall be delayed until midmorning to be certain the surfaces are dry. The day's painting shall be completed well in advance of the probable time of day when condensation will occur.

D. Inspection of Surfaces

1. Surface preparation and every field coat of priming and finishing paint shall be inspected by the Engineer or his/her authorized representative before the succeeding coat is applied. The Contractor shall follow a system of tinting successive paint coats so that no two coats for a given surface are exactly the same color. Areas to receive black protective coatings shall in such cases be tick marked with white or actually gauged as to thickness when finished.

2. Before application of the prime coat and each succeeding coat, any defects or deficiencies in the prime coat or succeeding coat shall be corrected by the Contractor before application of any subsequent coating.

3. Samples of surface preparation and of painting systems shall be furnished by the Contractor to be used as a standard throughout the job, unless omitted by the Engineer.

4. When any appreciable time has elapsed between coatings, previously coated areas shall be carefully inspected by the Engineer, and where, in his opinion, surfaces are damaged or contaminated, they shall be cleaned and recoated at the Contractor's expense. Recoating times of manufacturer's printed instructions shall be adhered to.

5. Coating thickness shall be verified by the use of a dry film thickness digital gauge. Gauge shall be Elcometer 456 or equal and shall be properly calibrated. Coating thickness on non-metal surfaces shall be verified by the use of an ultrasonic gauge. Ultrasonic gauge shall be Positector 200 or equal. Gauges shall include the entire range of coating thicknesses required in this section.

6. The Contractor shall provide free of charge to the Engineer two new digital dry film gauges and two wet film gauges to be used to inspect coating by Engineer and Contractor. One gauge may be used by Contractor and returned each day to the Engineer. Engineer will return gauges to Contractor at completion of job.

7. Coatings shall pass a holiday detector test.

8. Determination of Film Thickness: Randomly selected areas, each of at least 107.5 contiguous square feet, totaling at least 5% of the entire control area shall be tested. Within this area, at least 5 squares, each of 7.75 square inches, shall be randomly selected. Three readings shall be taken in each square, from which the mean film thickness shall be calculated. No more than 20 percent of the mean film thickness measurements shall be below the specified thickness. No single measurement shall be below 80 percent of the specified film thickness. Total dry film thickness greater than twice the specified film thickness shall not be acceptable. Areas where the measured dry film thickness exceeds twice that specified shall be completely redone unless otherwise approved by the Engineer. When measured dry film thickness is less than that specified additional coats shall be applied as required.

9. Holiday Testing: Holiday test painted ferrous metal surfaces which will be submerged in water or other liquids, or surfaces which are enclosed in a vapor space in such structures. Mark areas which contain holidays. Repair or repaint in accordance with paint manufacturer's printed instructions and retest.

    a. Dry Film Thickness Exceeding 20 Mils: For surfaces having a total dry film thickness exceeding 20 mils: Pulse-type holiday detector such as Tinker & Rasor Model AP-W, D.E. Stearns Co. Model 14/20, shall be used. The unit shall be adjusted to operate at the voltage required to cause a spark jump across an air gap equal to twice the specified coating thickness.

    b. Dry Film Thickness of 20 Mils or Less: For surfaces having a total dry film thickness of 20 mils or less: Tinker & Rasor Model M1 non-destructive type holiday detector, K-D Bird Dog, shall be used. The unit shall operate at less than 75-volts. For thicknesses between 10 and 20 mils, a non-sudsing type wetting agent, such as Kodak Photo-Flow, shall be added to the water prior to wetting the detector sponge.

E. Special Areas

1. All surfaces which are to be installed against concrete, masonry etc., and will not be accessible for field priming and/or painting shall be back primed and painted as specified herein, before erection. Anchor bolts shall be painted before the erection of equipment and then the accessible surfaces repainted when the equipment is painted.

F. Special attention shall be given to insure that edges, corners, crevices, welds and rivets receive a film thickness equivalent to that of the adjacent painted surfaces.

G. Safety

1. Respirators shall be worn by persons engaged or assisting in spray painting. The Contractor shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the Work.

H. Quality Workmanship

1. The Contractor shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect the Work whenever such covering is necessary, or if so requested by the City. Any unwanted paint shall be carefully removed without damage to any finished paint or surface. If damage does occur, the entire surface, adjacent to and including the damaged area, shall be repainted without visible lap marks and without additional cost to the City.

I. Defective/Damaged Coating System

1. Painting found defective shall be scraped or sandblasted off and repainted as the Engineer or his/her authorized representative may direct. Before final acceptance of the Work, damaged surfaces of paint shall be cleaned and repainted as directed by the Engineer or his/her representative.

2. If the coating system is determined to require repair/field touch up, the Contractor shall strictly adhere to the approved repair plan procedure per article 1.05, D. Contractor shall notify the Engineer prior to commencing any surface preparation and coating repair in order to verify the affected zone. Painting shall not be performed if adverse conditions, such as rain or rising seawater, are expected.

J. Any pipe scheduled to be painted and having received a coating of a tar or asphalt compound shall be painted with two coats or "Intertol Tar Stop", "Tnemec Tar Bar" or equal before successive coats are applied in accordance with the paint schedule.

3.05 SCHEDULE OF COLORS

A. All colors shall be as designated by the Engineer at the shop drawing review. The Contractor shall submit color samples including custom color choices as required to the Engineer as specified in Article 1.05 of this Section. The Contractor shall submit suitable samples of all colors and finishes for the surfaces to be painted, or on portable surfaces when required by the Engineer. The Engineer shall decide upon the choice of colors and other finishes when alternates exist. No variation shall be made in colors without the acceptance from the City. Color names and/or numbers shall be identified according to the appropriate color chart issued by the manufacturer of the particular product in question.

B. All above ground water main piping shall be painted white with blue longitudinal striping.

C. All underground water main piping shall have continuous 4” blue longitudinal stripe.

D. All above ground force main piping shall be painted green.

3.06 OSHA SAFETY COLORS

A. Items listed in ANSI Z53.1-1971, Section 2.1 shall be painted ANSI Red. In general, these items shall include fire protection equipment and apparatus; wall mounted breathing apparatus, danger signs and locations; and stop bars, buttons or switches. In addition all hose valves and riser pipes, fire protection piping and sprinkler systems, and electrical stop switches shall be painted ANSI Red.

B. Items listed in ANSI Z53.1-1971, Section 2.3 shall be painted ANSI Yellow. Yellow shall be the basic color for designating caution and for marking physical hazards such as striking against, stumbling, falling, tripping, and "caught in between". In addition, an 8-inch wide strip on the top and bottom tread of stairways shall be coated.

3.07 WORK IN CONFINED SPACES

A. The Contractor shall provide and maintain safe working conditions for all employees. Fresh air shall be supplied continuously to confined spaces through the combined use of existing openings, forced draft fans, or by direct air supply to individual workers. Paint fumes shall be exhausted to the outside from the lowest level in the contained space.

B. Electrical fan motors shall be explosion proof if in contact with fumes. No smoking or open fires will be permitted in, or near, confined spaces where painting is being done.

3.08 CLEANING

A. The Work area shall be at all times kept free from accumulation of waste material and rubbish caused by the Work. At the completion of the painting, all tools, equipment, scaffolding, surplus materials, and all rubbish around the Work areas shall be removed and the Work left broom clean unless otherwise specified.

- END OF SECTION -

Event # 461-6

Name: VICTORIA PARK STORMWATER IMPROVEMENT

Description: The City of Fort Lauderdale, Florida (City) is seeking bids from qualified bidders, hereinafter referred to as the Contractor, to provide construction services for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation To Bid (ITB).

This project is located at Victoria Park Neighborhood, in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, stormwater infrastructure removal and installation, water main relocation, cured in place pipe (CIPP) lining, pavement restoration and installation, pump station installation, installation of a new sheet pile seawall with a concrete cap and outfall pipe penetrations, landscaping removal and installation, tree removal and installation, swale restoration and installation, and Maintenance of Traffic (MOT)

Buyer: HEMMINGS TURNER, PAULETTE

Status: Pending Award

Event Type: IFB

Currency: USD

Sealed Bid: Yes

Respond To All Lines: Yes

Q & A Allowed: Yes

Number Of Amendments: 6

Display Bid Tabulation: Do Not Display

Event Dates

Preview:

Q & A Open: 06/05/2025 04:00:00 PM

Open: 06/05/2025 04:00:00 PM

Q & A Close: 06/30/2025 05:00:00 PM

Close: 08/08/2025 02:00:00 PM

Dispute Close:

Questions

Question	Response Type	Attachment
Did you sign and attach all the Required Forms	Yes No	Event 461 - Required Forms.pdf
The attached Anti-Human Trafficking Affidavit will be requested by the City from the awarded Bidder. This is an exhibit only and is not needed as part of your initial bid response.	Yes No	Anti-Human Trafficking Affidavit (2).pdf

Meetings

Event # 461-6: VICTORIA PARK STORMWATER IMPROVEMENT

Meeting	Description	Location	Date	Required
Pre Bid Conference	Pre-Bid Conference: A virtual pre-bid conference will be held on June 17th, 2025 @ 10:00 AM, on Microsoft Teams Join the meeting now Meeting ID: 223 476 594 643 2 Passcode: cA6my2jC +1 954-686-7296, Phone conference ID: 683 780 557#	United States, Fort Lauderdale	06/17/2025 10:00:00 AM	No

Attachments

Name	Attachment
Event 461 Victoria Park.pdf	Event 461 Victoria Park.pdf
EVENT 461 Victoria Park - Drawings_Part1.pdf	EVENT 461 Victoria Park - Drawings_Part1.pdf
EVENT 461 Victoria Park - Drawings_Part2.pdf	EVENT 461 Victoria Park - Drawings_Part2.pdf
EVENT 461 Victoria Park - Drawings_Part3.pdf	EVENT 461 Victoria Park - Drawings_Part3.pdf
EVENT 461 Victoria Park - Drawings_Part4.pdf	EVENT 461 Victoria Park - Drawings_Part4.pdf
EVENT 461 Victoria Park - Technical Specifications_Part1.pdf	EVENT 461 Victoria Park - Technical Specifications_Part1.pdf
EVENT 461 Victoria Park - Technical Specifications_Part 2.pdf	EVENT 461 Victoria Park - Technical Specifications_Part 2.pdf
Event 461 - Bid Line Items.pdf	Event 461 - Bid Line Items 1.pdf
EVENT 461 Exhibit 1 Victoria Park_WIFIA.pdf	EVENT 461 Exhibit 1 Victoria Park_WIFIA.pdf
Addendum 1.pdf	Addendum 1.pdf
Addendum 2.pdf	Addendum 2.pdf
Addendum 3.pdf	Addendum 3.pdf
Addendum 4.pdf	Addendum 4.pdf
Addendum 4 - SECTION 09900 PAINTING.pdf	Addendum 4 - SECTION 09900 PAINTING.pdf
Addendum 4 - 104 PAVING AND GRADING PLAN - PG-06.pdf	Addendum 4 - 104 PAVING AND GRADING PLAN - PG-06.pdf
Addendum 4 - 129 STANDARD DETAILS SHEETS - DT 01 - DT18	Addendum 4 - 129 STANDARD DETAILS SHEETS - DT 01 - DT18.pdf
Addendum 5.pdf	Addendum 5.pdf
Addendum 6.pdf	Addendum 6.pdf

Event # 461-6: VICTORIA PARK STORMWATER IMPROVEMENT

Contacts

Name	Email Address
PAULETTE HEMMINGS TURNER	pturner@fortlauderdale.gov

Commodity Codes

Commodity Code	Description
906-38	General Construction - Architectural
909	BUILDING CONSTRUCTION SERVICES, NEW (INCL. MAINTENANCE AND
909-24	Building Construction, Commercial and Institutional
909-30	Building Construction (Not Otherwise Classified)
909-63	Maintenance and Repair, Commercial and Institutional Buildin
912	CONSTRUCTION SERVICES, GENERAL (INCL. MAINTENANCE AND REPAIR
912-23	Construction, General (Backfill Services, Digging, Ditching,
913-40	Construction, Pipeline
913-45	Construction, Sewer and Storm Drain
913-56	Construction, Utility/Underground Projects
913-59	Construction and Upgrades, Wastewater Treatment Plant
913-60	Construction, Water System/Plants, Main and Service Line
959-26	Breakwater Construction, Maintenance, and Repair

Line Details

Line 1: The lump sum price for this item shall be full compensation

Description: The lump sum price for this item shall be full compensation

Item: MOBILIZATION AND DEMOBILIZATION The lump sum price for this item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 2: The lump sum price for this item shall be full compensation

Description: The lump sum price for this item shall be full compensation

Item: MAINTENANCE OF TRAFFIC (MOT) The lump sum price for this item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 3: The lump sum price for this bid item shall be full compensat

Description: The lump sum price for this bid item shall be full compensat

Item: GIS DATABASE The lump sum price for this bid item shall be full compensat

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 4: The lump sum price for this bid item shall be full compensat

Description: The lump sum price for this bid item shall be full compensat

Item: RECORD DRAWINGS The lump sum price for this bid item shall be full compensat
Commodity Code: 906-38 General Construction - Architectural
Quantity: 1.0000
Unit of Measure: LS
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 5: The lump sum price indicated for this bid item shall be full

Description: The lump sum price indicated for this bid item shall be full

Item: ALL WORK ASSOCIATED WITH THE PRE The lump sum price indicated for this bid item shall be full
Commodity Code: 906-38 General Construction - Architectural
Quantity: 1.0000
Unit of Measure: LS
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges No

Allowed:

Line 6: The lump sum price for this item shall be full compensation

Description: The lump sum price for this item shall be full compensation

Item: PROVIDE VIBRATION MONITORING INS The lump sum price for this item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 7: The lump sum price for this item shall be full compensation

Description: The lump sum price for this item shall be full compensation

Item: STORMWATER PUMP STATION The lump sum price for this item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 8: The unit price for this item is the payment, on a linear foo

Description: The unit price for this item is the payment, on a linear foo

Item: CANTILEVER STEEL SHEET PILE WALL The unit price for this item is the payment, on a linear foo

Commodity Code: 906-38 General Construction - Architectural

Quantity: 48.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 9: The lump sum price indicated for this bid item shall be full

Description: The lump sum price indicated for this bid item shall be full

Item: OUTFALL DRAINAGE PIPE PENETRATIO The lump sum price indicated for this bid item shall be full

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 10: The unit price for this item is the payment, on a cubic yard

Description: The unit price for this item is the payment, on a cubic yard

Item: FURNISH AND INSTALL FDOT #57 STO The unit price for this item is the payment, on a cubic yard

Commodity Code: 906-38 General Construction - Architectural

Quantity: 180.0000 **Unit of Measure:** CY

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 11: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: REMOVE AND DISPOSE OF EXISTING S The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 85.8000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 12: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: REMOVE AND DISPOSE OF EXISTING S The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 4,800.0000
Unit of Measure: LF

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges No

Allowed:

Line 13: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: GROUT, CAP, AND ABANDON EXISTING The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 316.8000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 14: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: GROUT, CAP, AND ABANDON EXISTING The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.5000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 15: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL FDOT "TYPE C The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 73.7000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 16: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL FDOT "TYPE 9 The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 23.1000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 17: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 4' DIAMETER The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 110.0000 **Unit of Measure:** EA

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 18: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 5' DIAMETER The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 6.6000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 19: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 4' DIAMETER The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 140.8000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges No

Allowed:

Line 20: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 5'X5' MANHO The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 21: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 6' DIAMETER The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 22: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 4' DIAMETER The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 23: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL OUTFALL STRU The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 10.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 24: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL WEIR CONTROL The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 25: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL CONCRETE COL The unit price for this item shall be full compensation on a
Commodity Code: 906-38 General Construction - Architectural
Quantity: 145.2000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 26: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL DRAINAGE PIP The unit price for this item shall be full compensation on a
Commodity Code: 906-38 General Construction - Architectural
Quantity: 5,100.0000
Unit of Measure: LF
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges No

Allowed:

Line 27: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL DRAINAGE PIP The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 15,500.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 28: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL DRAINAGE PIP The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2,200.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 29: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL DRAINAGE PIP The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1,200.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 30: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL DRAINAGE PIP The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 180.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 31: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL DRAINAGE PIP The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 650.0000 **Unit of Measure:** LF

Requested 04/25/2026

Delivery Date:

Require Response: Yes | **Price Breaks Allowed:** No | **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 32: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL EXFILTRATION The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 19,000.0000 | **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes | **Price Breaks Allowed:** No | **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 33: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL POLLUTION RE The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 92.4000 | **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes | **Price Breaks Allowed:** No | **Allow Alternate Responses:** No

Add On Charges No

Allowed:

Line 34: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 10"-12" MANA The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 35: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 15"-18" MANA The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 36: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL 42"-48" MANA The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 37: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: CONNECT EXISTING PIPE TO PROPOSE The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 25.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 38: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: CONNECT PROPOSED PIPE TO AN EXIS The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 25.0000 **Unit of Measure:** EA

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 39: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: CONNECT PROPOSED PIPE TO EXISTIN The unit price for this item shall be full compensation on a
Commodity Code: 906-38 General Construction - Architectural
Quantity: 25.0000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 40: This work will be performed, if necessary, as determined by

Description: This work will be performed, if necessary, as determined by

Item: LINE EXISTING STORM PIPE WITH C. This work will be performed, if necessary, as determined by
Commodity Code: 906-38 General Construction - Architectural
Quantity: 1,170.0000
Unit of Measure: LF
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges No

Allowed:

Line 41: This work will be performed, if necessary, as determined by

Description: This work will be performed, if necessary, as determined by

Item: LINE EXISTING STORM PIPE WITH C. This work will be performed, if necessary, as determined by

Commodity Code: 906-38 General Construction - Architectural

Quantity: 525.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 42: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL INLINE CHECK The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 43: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL INLINE CHECK The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 3.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 44: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL INLINE CHECK The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 45: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL INLINE CHECK The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** EA

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 46: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: HEAVY DESILT/WATER JETTING AND C The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 950.0000
Unit of Measure: LF

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 47: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: HEAVY DESILT/WATER JETTING AND C The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 20.0000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges

Allowed:

Line 48: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: HEAVY DESILT/WATER JETTING AND C The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 300.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 49: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: HEAVY DESILT/WATER JETTING AND C The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2,400.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 50: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: OFFSET EXISTING WATER MAIN (2") The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 100.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 51: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: OFFSET EXISTING WATER MAIN (4") The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 100.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 52: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: OFFSET EXISTING WATER MAIN (6") The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 500.0000 **Unit of Measure:** LF

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 53: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: OFFSET EXISTING WATER MAIN (8") The unit price for this item shall be full compensation on a
Commodity Code: 906-38 General Construction - Architectural
Quantity: 200.0000
Unit of Measure: LF
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 54: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: RESTRAIN EXISTING WATER MAIN The unit price for this item shall be full compensation on a
Commodity Code: 906-38 General Construction - Architectural
Quantity: 600.0000
Unit of Measure: LF
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges

Allowed:

Line 55: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL GATE VALVE 2 The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 56: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL GATE VALVE 4 The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 57: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL GATE VALVE 6 The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 10.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 58: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL GATE VALVE 8 The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 5.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 59: The unit price for this item shall be per unit basis for all

Description: The unit price for this item shall be per unit basis for all

Item: FURNISH AND INSTALL TEMPORARY LI The unit price for this item shall be per unit basis for all

Commodity Code: 906-38 General Construction - Architectural

Quantity: 4.0000 **Unit of Measure:** EA

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 60: The unit price for this item shall be per unit basis for all

Description: The unit price for this item shall be per unit basis for all

Item: FURNISH AND INSTALL TEMPORARY LI The unit price for this item shall be per unit basis for all

Commodity Code: 906-38 General Construction - Architectural

Quantity: 4.0000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 61: The unit price for this item shall be per unit basis for all

Description: The unit price for this item shall be per unit basis for all

Item: FURNISH AND INSTALL TEMPORARY LI The unit price for this item shall be per unit basis for all

Commodity Code: 906-38 General Construction - Architectural

Quantity: 25.0000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges No

Allowed:

Line 62: The unit price for this item shall be per unit basis for all

Description: The unit price for this item shall be per unit basis for all

Item: FURNISH AND INSTALL TEMPORARY LI The unit price for this item shall be per unit basis for all

Commodity Code: 906-38 General Construction - Architectural

Quantity: 12.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 63: The unit price for this item shall be full compensation for

Description: The unit price for this item shall be full compensation for

Item: REPLACE EXISTING WATER SERVICES The unit price for this item shall be full compensation for

Commodity Code: 906-38 General Construction - Architectural

Quantity: 200.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 64: The unit price for this item shall be full compensation for

Description: The unit price for this item shall be full compensation for

Item: REPLACE EXISTING SEWER LATERALS The unit price for this item shall be full compensation for

Commodity Code: 906-38 General Construction - Architectural

Quantity: 200.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 65: Measurement for payment to furnish and install fire hydrant

Description: Measurement for payment to furnish and install fire hydrant

Item: REMOVE AND REPLACE FIRE HYDRANT Measurement for payment to furnish and install fire hydrant

Commodity Code: 906-38 General Construction - Architectural

Quantity: 10.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 66: Measurement for payment for milling existing asphalt and res

Description: Measurement for payment for milling existing asphalt and res

Item: MILL EXISTING ASPHALT (UP TO 2-I Measurement for payment for milling existing asphalt and res

Commodity Code: 906-38 General Construction - Architectural

Quantity: 95,000.0000 **Unit of Measure:** SY

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 67: Measurement for furnishing and installing speed humps will b

Description: Measurement for furnishing and installing speed humps will b

Item: FURNISH AND INSTALL SPEED HUMP Measurement for furnishing and installing speed humps will b

Commodity Code: 906-38 General Construction - Architectural

Quantity: 10.0000
Unit of Measure: EA

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges Allowed: No

Line 68: Measurement for payment for restoration of driveways/parking

Description: Measurement for payment for restoration of driveways/parking

Item: RESTORATION OF DRIVEWAYS/PARKING Measurement for payment for restoration of driveways/parking

Commodity Code: 906-38 General Construction - Architectural

Quantity: 669.5187
Unit of Measure: SY

Requested Delivery Date: 04/25/2026

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No

Add On Charges

Allowed:

Line 69: Measurement for payment for restoration of driveways/parking

Description: Measurement for payment for restoration of driveways/parking

Item: RESTORATION OF DRIVEWAYS (CONCRE Measurement for payment for restoration of driveways/parking

Commodity Code: 906-38 General Construction - Architectural

Quantity: 100.0000 **Unit of Measure:** SY

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 70: Measurement for payment for restoration of driveways/parking

Description: Measurement for payment for restoration of driveways/parking

Item: RESTORATION OF DRIVEWAYS (PAVERS Measurement for payment for restoration of driveways/parking

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1,000.0000 **Unit of Measure:** SY

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 71: Measurement for payment for restoration of driveways/parking

Description: Measurement for payment for restoration of driveways/parking

Item: RESTORATION OF DRIVEWAYS/PARKING Measurement for payment for restoration of driveways/parking

Commodity Code: 906-38 General Construction - Architectural

Quantity: 3,300.0000 **Unit of Measure:** SY

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 72: Measurement for payment for clearing and grading swale and o

Description: Measurement for payment for clearing and grading swale and o

Item: CLEARING AND GRADING SWALES Measurement for payment for clearing and grading swale and o

Commodity Code: 906-38 General Construction - Architectural

Quantity: 10,000.0000 **Unit of Measure:** SY

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 73: Measurement for payment for furnishing and installing sidewa

Description: Measurement for payment for furnishing and installing sidewa

Item: FURNISH AND INSTALL CONCRETE SID Measurement for payment for furnishing and installing sidewa

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1,800.0000 **Unit of Measure:** SY

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 74: Measurement for payment for furnishing and installing sidewa

Description: Measurement for payment for furnishing and installing sidewa

Item: FURNISH AND INSTALL CONCRETE SID Measurement for payment for furnishing and installing sidewa
Commodity Code: 906-38 General Construction - Architectural
Quantity: 200.0000
Unit of Measure: SY
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 75: Measurement for payment for furnishing and installing curb,

Description: Measurement for payment for furnishing and installing curb,

Item: CONSTRUCT TYPE "E", TYPE "F", OR Measurement for payment for furnishing and installing curb,
Commodity Code: 906-38 General Construction - Architectural
Quantity: 900.0000
Unit of Measure: LF
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges No

Allowed:

Line 76: Measurement for payment for furnishing and installing curb,

Description: Measurement for payment for furnishing and installing curb,

Item: CONSTRUCT TYPE "A", TYPE "B", OR Measurement for payment for furnishing and installing curb,

Commodity Code: 906-38 General Construction - Architectural

Quantity: 360.0000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 77: Measurement for payment for Modify Existing Gutter Behind La

Description: Measurement for payment for Modify Existing Gutter Behind La

Item: MODIFY EXISTING GUTTER BEHIND LA Measurement for payment for Modify Existing Gutter Behind La

Commodity Code: 906-38 General Construction - Architectural

Quantity: 290.4000 **Unit of Measure:** LF

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 78: Measurement for payment for furnishing and installing paveme

Description: Measurement for payment for furnishing and installing paveme

Item: FURNISH AND INSTALL PAVEMENT MAR Measurement for payment for furnishing and installing paveme

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 79: The per unit price for this bid item shall be full compensat

Description: The per unit price for this bid item shall be full compensat

Item: REMOVE AND REINSTALL MAILBOXES, The per unit price for this bid item shall be full compensat

Commodity Code: 906-38 General Construction - Architectural

Quantity: 200.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 80: The lump sum price for this bid item shall be full compensat

Description: The lump sum price for this bid item shall be full compensat

Item: FURNISH AND INSTALL TREE PROTECT The lump sum price for this bid item shall be full compensat

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** LS

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 81: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL CLUSIA ROSEA The unit price for this bid item shall be full compensation
Commodity Code: 906-38 General Construction - Architectural
Quantity: 2.0000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 82: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL BURSERA SIMA The unit price for this bid item shall be full compensation
Commodity Code: 906-38 General Construction - Architectural
Quantity: 8.0000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges

Allowed:

Line 83: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL CONOCARPUS E The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 12.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 84: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL MYRCIANTHES The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 15.6000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 85: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL QUERCUS VIRG The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 16.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 86: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL PTYCHOSPERMA The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 3.0000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 87: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL ROYSTONEA EL The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 2.0000 **Unit of Measure:** EA

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 88: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL WASHINGTONIA The unit price for this bid item shall be full compensation
Commodity Code: 906-38 General Construction - Architectural
Quantity: 5.0000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 89: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL WODYETIA BIF The unit price for this bid item shall be full compensation
Commodity Code: 906-38 General Construction - Architectural
Quantity: 2.0000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges

Allowed:

Line 90: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: FURNISH AND INSTALL CLUSIA GUTTI The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 129.6000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 91: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL SOD The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 50,000.0000 **Unit of Measure:** SY

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 92: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: REMOVE AND DISPOSE OF EXISTING T The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 32.4000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 93: The unit price for this bid item shall be full compensation

Description: The unit price for this bid item shall be full compensation

Item: REMOVE AND DISPOSE OF EXISTING T The unit price for this bid item shall be full compensation

Commodity Code: 906-38 General Construction - Architectural

Quantity: 63.6000 **Unit of Measure:** EA

Requested Delivery Date: 04/25/2026

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

Line 94: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: FURNISH AND INSTALL VEGETATION R The unit price for this item shall be full compensation on a

Commodity Code: 906-38 General Construction - Architectural

Quantity: 120.0000 **Unit of Measure:** LF

Requested 04/25/2026

Delivery Date:

Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 95: Measurement for payment to trim existing tree will be based

Description: Measurement for payment to trim existing tree will be based

Item: EXISTING TREE CANOPY TRIMMING Measurement for payment to trim existing tree will be based
Commodity Code: 906-38 General Construction - Architectural
Quantity: 312.0000
Unit of Measure: EA
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges Allowed: No

Line 96: The unit price for this item shall be full compensation on a

Description: The unit price for this item shall be full compensation on a

Item: EXISTING TREE ROOT PRUNING The unit price for this item shall be full compensation on a
Commodity Code: 906-38 General Construction - Architectural
Quantity: 120.0000
Unit of Measure: LF
Requested Delivery Date: 04/25/2026
Require Response: Yes
Price Breaks Allowed: No
Allow Alternate Responses: No
Add On Charges No

Event # 461-6: VICTORIA PARK STORMWATER IMPROVEMENT

Allowed:

CITY OF FORT LAUDERDALE

CONTRACT AND SPECIFICATIONS PACKAGE

BID/EVENT NO. 461

PROJECT NO. P12082

Victoria Park Stormwater Improvements

PAULETTE HEMMINGS TURNER
SENIOR PROCUREMENT SPECIALIST
Telephone: (954) 828-5139 E-mail: PTurner@fortlauderdale.gov

TABLE OF CONTENTS

Description **Pages**

I. BID INFORMATION

Invitation to Bid 3
Instruction to Bidders 7
General Conditions……10
Special Conditions ..... ……. 7

II. CONSTRUCTION AGREEMENT (SAMPLE) 39

III. SPECIFICATIONS

IV. EXHIBIT 1 - WIFIA Program Borrower Guide to Federal Requirements

DIVISION 1 – GENERAL REQUIREMENTS

01001 General Requirements……
01005 Intent of Drawings and Specifications.....
01010 Summary of Work .....
01025 Measurement and Payment.....
01070 Abbreviations .....
01090 Reference Standards .....
01200 Project Meetings .....
01300 Submittals .....
01312 Field Engineering .....
01320 Project Record Documents .....
01400 Quality Control .....
01430 Operations and Maintenance Data……
01510 Temporary Utilities .....
01520 Construction Constraints.....
01525 Maintenance of Traffic .....
01530 Protection of Existing Facilities .....
01550 Site Access and Storage.....
01560 Temporary Environmental Controls .....
01580 Project Identification and Signs.....
01590 Field Office, Equipment, and Services.....
01600 Materials and Equipment .....
01660 Equipment Testing and Startup .....
01700 Project Closeout……..

DIVISION 2 - SITE CONSTRUCTION

02015 Mobilization and Demobilization.....
02100 Erosion and Sediment Control – Stormwater Pollution Prevention.....

02200 Site Preparation .....
02220 Demolition .....
02222 Excavation and Backfill for Utilities .....
02224 Excavation and Backfill for Structures .....
02225 Contaminated Soils and Groundwater .....
02240 Dewatering.....
02300 Earthwork.....
02314 Vibration and Noise Monitoring……..
02369 Steel Sheet Piling……
02371 Geotextiles .....
02481 Tree Relocation and Protection .....
02535 Structures.....
02575 Surface Restoration ……
02630 Storm Drain Facilities.....
02631 Exfiltration Trench Drains……
02632 Corrugated Polypropylene Drainage Pipe……
02665 Cured-in-Place Pipe Lining……
02710 Limerock Base .....
02723 Stormwater Pipe Cleaning and Internal TV Inspection……..
02761 Pavement Marking .....
02771 Concrete Curb and Sidewalk .....
02772 Asphalt Pavement.....
02820 Fence System……..
02900 Landscaping.....
02911 Soil Preparation .....
02920 Sodding.....

DIVISION 3 – CONCRETE

03100 Concrete Formwork .....
03200 Concrete Reinforcement .....
03290 Joints in Concrete……
03300 Cast-in-Place Concrete……...
03315 Grout…….
03350 Concrete Finishes……
03370 Concrete Curing……..
03400 Precast Concrete – General ……..
03480 Precast Concrete Manholes, Handholes, and Vaults ……

DIVISION 5 – METALS

05010 Metal Materials.....
05035 Galvanizing .....
05050 Metal Fastening……
05120 Structural Steel……
05140 Structural Aluminum……
05500 Metal Fabrication…….
05510 Metal Stairs……..
05515 Ladders…….
05520 Handrails and Railings……

05531 Grating, Floor Plates, and Access Hatches……
05540 Castings……

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07160 Bituminous Dampproofing.....
07920 Sealants and Caulking.....

DIVISION 9 – FINISHES

09900 Painting .....

DIVISION 11 – EQUIPMENT AND GENERAL PROVISIONS

11000 Equipment General Provisions .....
11100 Pumps – General……
11105 Submersible Axial Flow Pumps ……..

DIVISION 15 – MECHANICAL

15000 Basic Mechanical Requirements……
15006 Ductile Iron Pipe……...
15008 PVC Non-Pressure Pipe……
15009 PVC Pressure Pipe……
15020 Pipe Supports……...
15030 Piping and Equipment Identification Systems……..
15095 Valves – General……..
15100 Valve Operators……
15104 Ball Valves……
15108 Gate Valves……..
15114 Miscellaneous Valves and Appurtenances……..
15177 Inline Check Valves……
15202 Flap Gates……
15995 Pipeline Testing and Disinfection……...

DIVISION 16 – ELECTRICAL

16000 Basic Electrical Requirements .....
16055 Power System Studies……
16111 Conduit……
16118 Underground Electrical……..
16123 Low Voltage Wire and Cable……
16130 Boxes……
16170 Grounding and Bonding……..
16190 Supporting Devices……
16195 Electrical Identification……
16280 Surge Protective Devices……
16461 Dry Type Distribution Transformers……..
16476 Enclosed Circuit Breakers……..
16480 Low-Voltage Electric Motors……...

16481 Motor Controllers…….
16500 Lighting……..
16902 Electric Controls and Relays……..

DIVISION 17 – CONTROL AND INFORMATION SYSTEMS

17000 Control and Information System Scope and General Requirements .....
17030 Control and Information System Submittals……
17040 Control and Information System Training Requirements……..
17050 Tools, Supplies, and Spare Parts – General……
17060 Signal Coordination Requirements……
17070 Control and Information System Testing – General……
17071 Factory Acceptance Test……..
17072 Field Testing……
17073 Final Acceptance Test……..
17080 Quality Assurance……
17100 Control and Information System Hardware – General……..
17120 Programmable Logic Controllers……..
17125 Operator Interface Units…….
17135 Cellular Communications System…….
17185 Networks……..
17190 Uninterruptible Power Systems…….
17500 Enclosures – General……..
17510 Cabinets and Panels……
17550 Panel Instruments and Accessories…….
17560 Surge Protection Devices……..
17600 Unpowered Instruments – General……..
17670 Level Switches (Suspended Float Type)…….
17698 Instrumentation and Control System Accessories…….
17700 Powered Instruments – General……..
17745 Radar Level Measurement Systems……
17910 Instrument Schedule……..
17920 Control System Input Output Schedule……..
17950 Functional Control Descriptions…….

APPENDIX

Appendix A - Geotechnical Services Report by RADISE International, February 2018
Appendix B - Benthic Survey by The Chappel Group, Inc., August 2024
Appendix C - Topographic Survey by Craven Thompson & Associates, Inc., August 2024
Appendix D - SUE Test Hole Report by InfraMap, October 2024

Note: The following documents are available electronically for completion and

documents must be returned with your bid along with your bid security, proof of insurance, and proof of required licenses/certifications.

Affidavit of Compliance with Foreign Entity Laws
CITB Questionnaire Sheet
CITB Specific References
CITB Trench Safety
Drug Free Workplace Form
City of Fort Lauderdale Construction Bid Certification Page
E-Verify Statement
Non-Collusion Statement
Non-Discrimination Certification Form

INVITATION TO BID

Sealed bids will be received electronically until **2:00 p.m.**, local time, on **July 7, 2025,** and opened online immediately thereafter for **BID/EVENT NO., 461, PROJECT NO., P12082, Victoria Park Stormwater Improvements**

Please be advised that effective immediately, and until further notice, all Invitation to Bids, Request for Proposals, Request for Qualifications, and other solicitations led by the City of Fort Lauderdale will be opened electronically via the City's on-line strategic sourcing platform at the date and time indicated on the solicitation. All openings will be held on the City's on-line strategic sourcing platform.

In the event of any conflict or discrepancy between bid price(s) submitted by bidder electronically into the City's online strategic sourcing platform Unit Price field(s), any other forms or attachments (whether part of the City's solicitation documents or documents created and uploaded by the bidder, or another section/field of the System, the online unit price(s) **inputted** electronically into the System by the bidder shall govern.

Anyone requesting assistance or having further inquiry in this matter must contact the Procurement Specialist indicated in the solicitation, via the Question and Answer (Q&A) forum on the City's online strategic sourcing platform before the Last Day for Questions indicated in the Solicitation.

This project is located at Victoria Park Neighborhood, in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, stormwater infrastructure removal and installation, water main relocation, cured in place pipe (CIPP) lining, pavement restoration and installation, pump station installation, installation of a new sheet pile seawall with a concrete cap and outfall pipe penetrations, landscaping removal and installation, tree removal and installation, swale restoration and installation, and Maintenance of Traffic (MOT)

THE FOLLOWING IS APPLICABLE TO THIS SOLICITATION IF CHECKED:

☐ **LUMP SUM BID** - City shall pay awarded bidder the Contract Price for the performance of work described in this Invitation for Bid. Payment shall be at the lump sum price stated in this Invitation to Bid and/or resultant contract. This price shall be full compensation for all costs, including overhead and profit, associated with completion of all work in full conformity with the requirements as stated or shown, or both, in the contract documents. The cost of any item of work not covered in this solicitation shall still be provided and the cost borne by the contractor. NO CHANGE ORDERS WILL BE ALLOWED UNLESS IT IS OWNER-DRIVEN AND INITIATED BY THE CITY.

Loan – Funded Project: This project is funded by the Water Infrastructure Financing and Innovation Act (WIFIA) by the United States Department of Environmental Protection Agency. The awarded bidder shall adhere to all the terms and conditions of the loan *(see Exhibit 1).*

Drawing Plans: **This** Project consists of Drawing File No., **4-144-88**, **233** sheets. Drawing plans may be obtained **free of charge** at the City's online strategic sourcing platform.

Licensing Requirements: Possession of the following is required for this Project: Florida Certified General Contractor License or any other State or County License(s), Certification(s) or Registration(s) deemed legally permissible by the City to conduct the nature of the work required in this solicitation. is required for this Project. Bidder should submit a copy of license to be submitted with bid response.

Any sub-contractors employed by the Proposer shall be licensed and insured in accordance with this solicitation. Additionally, it is the Proposer's responsibility for ensuring that any sub-contractors' work meets the requirements of this solicitation at all times.

NOTE: Payment on this contract will be made by Check.

Pre-Bid Conference: A virtual pre-bid conference will be held on **June 17th, 2025 @ 10:00 AM**, on **Microsoft Teams**

Microsoft Teams Need help?
Join the meeting now
Meeting ID: 223 476 594 643 2
Passcode: cA6my2jC

Dial in by phone
+1 954-686-7296,,683780557# United States, Fort Lauderdale
Find a local number
Phone conference ID: 683 780 557#
Join on a video conferencing device
Tenant key: fortlauderdale1@m.webex.com
Video ID: 118 708 905 6
More info
For organizers: Meeting options | Reset dial-in PIN

This meeting is facilitated by the City of Fort Lauderdale. Meeting content may be subject to Florida Statute Chapter 119 concerning public records and subject to disclosure.

While attendance is not mandatory, additional meetings at other times might not be available. It is the sole responsibility of the Contractor to become familiar with the scope of the City's requirements and systems prior to submitting a bid. No variation in price or conditions shall be permitted based upon a claim of ignorance. It is strongly suggested that all Bidders attend the pre-bid meeting and/or site visit.

It will be the sole responsibility of the Bidder to attend the pre-bid/site visit to inspect the City's location(s) facilities systems prior to submitting a bid. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the Bidder has familiarized themselves with the nature and extent of the work, equipment, materials, and labor required.

If a person decides to appeal any decision made by the board, agency, or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Bid Security: A certified check, cashier's check, bank officer's check or bid bond for **FIVE percent (5%)** of the bid amount, made payable to the City of Fort Lauderdale, Florida, shall accompany each offer.

Bid Bonds:

Bidders can submit bid bonds **three** different ways.

1) Bidders may **upload** their original executed bid bond on the City's online strategic sourcing platform to accompany their electronic bids and deliver the original, signed and sealed hard copy to the Finance Department, Procurement Services Division, 101 NE 3rd Avenue, Suite 1650, Fort Lauderdale, Florida 33301-1016, **within five (5) business days** after bid opening, with the company name, bid number and title clearly indicated on the envelope.

2) Bidders can **hand deliver** their original, signed and sealed bid bond in a sealed envelope to the Finance Department, Procurement Services Division, 101 NE 3rd Avenue, Suite 1650, Fort Lauderdale, Florida 33301-1016, **before time of bid opening**, with the company name, bid number and title clearly indicated on the envelope.

3) Bidders can **mail** their original, signed and sealed bid bond to the Finance Department, Procurement Services Division, 101 NE 3rd Avenue, Suite 1650, Fort Lauderdale, Florida 33301-1016, **before time of bid opening**, with the company name, bid number and title clearly indicated on the envelope. NOTE: Bond must be received in Procurement and time stamped before bid opening.

It will be the sole responsibility of the bidder to ensure that its bid is submitted prior to the bid opening date and time listed. **PAPER BID SUBMITTALS WILL NOT BE ACCEPTED. BIDS MUST BE SUBMITTED ELECTRONICALLY VIA THE CITY'S ONLINE STRATEGIC SOURCING PLATFORM.**

Certified Checks, Cashier's Checks and Bank Drafts:
These **CANNOT** be submitted via the City's online strategic souring platform, nor are their images allowed to be uploaded and submitted with your electronic bid. These forms of securities, as well as hard copy bid bonds, must be received on or before the Invitation to Bid (ITB) opening date and time, at the Finance Department, Procurement Services Division, 101 NE 3rd Avenue, Suite 1650, Fort Lauderdale, Florida 33301-1016, with the bid number and title clearly indicated on the envelope.

It is the bidder's sole responsibility to ensure that its bid bond or other bid security is received by the Procurement Services Division before the time of bid opening. Failure to adhere to this requirement may be grounds to consider the bid as non-responsive.

The City of Fort Lauderdale reserves the right to waive any informality in any or all bids and to reject any or all bids.

For information concerning technical specifications, please utilize the Q&A platform provided on the City's online strategic sourcing platform. Questions of a material nature must be received prior to the cut-off date specified in the solicitation. Material changes, if any, to the scope of services or bidding procedures, will only be transmitted by written addendum. **Bidders please note:** No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the bidder has familiarized himself with the nature and extent of the work, equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation.

Information on bid results and projects currently out to bid can be obtained on the City's website – https://www.fortlauderdale.gov/government/departments-a-h/finance/procurement-services
For general inquiries, please call (954) 828-5933.

-END OF SECTION-

INSTRUCTIONS TO BIDDERS

The following instructions are given for the purpose of guiding bidders in properly preparing their bids or proposals. These directions have equal force and weight with the specifications, and strict compliance is required with all of these provisions.

QUALIFICATIONS OF BIDDERS – No bid will be accepted from, nor will any contract be awarded to, any person who is in arrears to the City of Fort Lauderdale, upon any debt or contract, or who has defaulted, as surety or otherwise, upon any obligation to the City, or who is deemed irresponsible or unreliable by the City Commission of Fort Lauderdale.

CONCERNING SUB-CONTRACTORS, SUPPLIERS, AND OTHERS - The amount of work that is sublet by the Bidder shall be limited by the condition that the Bidder shall, with his own organization, perform at least forty percent (40%) of the total dollar amount of the Work to be performed under the Agreement.

PERSONAL INVESTIGATION - Bidders shall satisfy themselves by personal investigation, and by such other means as they may think necessary or desirable, as to the conditions affecting the proposed work and the cost. No information derived from maps, plans, specifications, or from the Engineer or City staff shall relieve the Contractor from any risk or from fulfilling all terms of the contract.

INCONSISTENCIES – Any inconsistency between different provisions of the plans, specifications, bid or contract, or any point requiring explanation must be inquired by the bidder, in writing, at least ten (10) days prior to the time set for opening bids. After bids are opened, the bidders shall abide by the decision of the Engineer as to such interpretation.

ADDENDA AND INTERPRETATIONS - No interpretations of the meaning of the plans, specifications or other contract documents will be made orally to any bidder. Prospective bidders must request such interpretation in writing as instructed in the bid package. To be considered, such request must be received by the Questions and Answers deadline as indicated in the City's online strategic sourcing platform. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. **It is the bidder's responsibility to verify if addenda have been issued in the City's online strategic sourcing platform.** Failure of any bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation under its bid as submitted. All addenda so issued shall become a part of the contract document. **Bidder** shall verify in the City's online strategic sourcing platform that it has all addenda before submitting a bid.

LEGAL CONDITIONS - Bidders are notified to familiarize themselves with the provisions of the laws of the State of Florida relating to hours of labor on municipal work, and with the provisions of the laws of the State of Florida and the Charter and the ordinances of the City of Fort Lauderdale.

PUBLIC ENTITY CRIMES - A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for Category Two for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.

FORMS OF BIDS - Each bid and its accompanying statements MUST BE SUBMITTED ELECTRONICALLY, IN GOOD ORDER WITH ALL BLANKS COMPLETED, and must show the name of the bidder and a statement as to its contents. In the event of any conflict or discrepancy between bid price(s) submitted by bidder electronically into the City's online strategic sourcing platform Unit Price field(s), any other forms or attachments (whether part of the City's solicitation documents or documents

created and uploaded by the bidder, or another section/field of the System, the online unit price(s) **inputted** electronically into the System by the bidder shall govern.

The bid must be signed by one duly authorized to do so, and in case signed by a deputy or subordinate, the principal's properly written authority to such deputy or subordinate must accompany the bid. No bid will be accepted, for any reason whatsoever, which is not submitted to the City as stated above, within the specified time.

INSURANCE - Contractor shall provide and shall require all of its sub-contractors to provide, pay for, and maintain in force at all times during the term of the Agreement, such insurance, including Property Insurance (Builder's Risk), Commercial General Liability Insurance, Business Automobile Liability Insurance, Workers' Compensation Insurance, Employer's Liability Insurance, and Umbrella/Excess Liability, as stated below. Such policy or policies shall be issued by companies authorized to do business in the State of Florida and having agents upon whom service of process may be made in the State of Florida.

BID BOND - A certified check, cashier's check or bank officer's check made payable to the City of Fort Lauderdale, or a bid bond in favor of the City of Fort Lauderdale shall accompany each bid as evidence of the good faith and responsibility of the bidder. The amount of the check or bond shall be retained by the City as liquidated damages in the event the bidder whose bid is accepted refuses to or fails to enter into a contract for the execution of the work solicited in this Invitation to Bid.

The bid bond or check shall be a guarantee that the successful bidder will promptly execute a contract satisfactory to the City for the work solicited in this Invitation to Bid and furnish good and sufficient bonds.

Following the full execution of a contract for the work solicited in this Invitation to Bid and the successful bidder's provision of good and sufficient bonds, in the event bid security was provided by check, the amount of the bid security accompanying the successful bidder's bid will be refunded to the successful bidder, or in the event bid security was provided by a bond, the bond accompanying the successful bidder's bid will be returned to the successful bidder. In the event the successful bidder fails to enter into, execute, and deliver a contract and furnish the required bonds within ten (10) days after the City provides notice to the successful bidder to deliver the executed contract and the required bonds, the bid bond shall immediately be payable to the City of Fort Lauderdale, or in the case of a check, the City shall retain the amount of the check, as liquidated damages. The City's retention of such amount shall not be construed as a penalty or forfeiture.

FILLING IN BIDS - All prices must be electronically submitted in the bid pages, and bids must fully cover all items for which prices are asked and no other. Where more than one person is interested, it is required that all persons interested or their legal representative make all verification and subscribe to the bid. In the event of any conflict or discrepancy between bid price(s) submitted by bidder electronically into the City's online strategic sourcing platform Unit Price field(s), any other forms or attachments (whether part of the City's solicitation documents or documents created and uploaded by the bidder, or another section/field of the System, the online unit price(s) **inputted** electronically into the System by the bidder shall govern.

PRICES QUOTED: Deduct any discount offered and quote firm net unit prices. In the case of a discrepancy in computing the amount of the bid, the unit price quoted will govern. All prices quoted shall be F.O.B. destination, freight prepaid (Bidder pays and bears freight charges, Bidder owns goods in transit and files any claims), unless otherwise stated in Special Conditions. Each item must be bid separately. No attempt shall be made to tie any item or items contained in the ITB with any other business with the City.

BIDS FIRM FOR ACCEPTANCE: Bidder warrants, by virtue of bidding, that his bid and the prices quoted in his bid will be firm for acceptance by the City for a period of one hundred and twenty (120)

days from the date of bid opening unless otherwise stated in the ITB. The City shall award contract within this time period or shall request to the recommended awarded vendor an extension to hold pricing, until products/services have been awarded.

ADDITIONAL ITEMS OR SERVICES: The City may require additional items or services of a similar nature, but not specifically listed in the contract. The Contractor agrees to provide such items or services and shall provide the City prices on such additional items or services. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to procure those items or services from other vendors, or to cancel the contract upon giving the Contractor thirty (30) days written notice.

DELETION OR MODIFICATION OF SERVICES: The City reserves the right to delete any portion of the Contract at any time without cause, and if such right is exercised by the City, the total fee shall be reduced in the same ratio as the estimated cost of the work deleted bears to the estimated cost of the work originally planned. If work has already been accomplished on the portion of the Contract to be deleted, the Contractor shall be paid for the deleted portion on the basis of the estimated percentage of completion of such portion.

If the Contractor and the City agree on modifications or revisions to the task elements, after the City has approved work to begin on a particular task or project, and a budget has been established for that task or project, the Contractor will submit a revised cost to the City for approval prior to proceeding with the work.

TERMINATION FOR UNAPPROPRIATED FUNDS**:** The obligation of the City for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

CAUSES FOR REJECTION - No bid will be canvassed, considered or accepted which, in the opinion of the City is informal or unbalanced, or contains inadequate or unreasonable prices for any items. Each item must carry its own proportion of the cost as nearly as is practicable. Any alteration, erasure, interlineation, or failure to specify bids for all items called for in the schedule shall render the bid informal.

REJECTION OF BIDS - The City reserves the right to reject any bid if the evidence submitted by the bidder, or if the investigation of such bidder, fails to satisfy the City that such bidder is properly qualified to carry out the obligations and to complete the work contemplated. Any or all bids will be rejected, if there is reason to believe that collusion exists among bidders. A bid will be considered irregular and may be rejected, if it shows serious omissions, alterations in form, additions not called for, conditions or unauthorized alternates, or irregularities of any kind. The City reserves the right to reject any or all bids and to waive such technical errors as may be deemed best for the interests of the City.

BID PROTEST PROCEDURE: Any bidder who is not recommended for award of a contract and who alleges a failure by the City to follow the City's procurement ordinance or any applicable law may protest to the Procurement Division – Deputy Director of Finance, by delivering a letter of protest within five (5) days after a Notice of Intent to award is posted on the City's website at the following link: https://www.fortlauderdale.gov/government/departments-a-h/finance/procurement-services/notices-of-intent-to-award

The complete protest ordinance may be found on the City's website at the following link: https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-182DIREPRAWINAW

WITHDRAWALS - Any bidder may, without prejudice to himself, withdraw its bid at any time prior to the expiration of the time during which bids may be submitted. Such request for withdrawal must be in

writing and signed in the same manner and by the same person who signed the bid. After expiration of the period for receiving bids, no bids can be withdrawn, modified, or explained.

CONTRACT - The bidder to whom award is made shall execute a written contract to do the work and maintain the same in good repair until final acceptance by the proper authorities and shall furnish good and sufficient bonds as specified within ten (10) days after receiving such contract for execution. If the bidder to whom the first award is made fails to enter into a contract as provided, the award may be annulled and the contract let to the next lowest bidder who is responsive and responsible, and that bidder shall fulfill every stipulation and obligation as if such bidder were the original party to whom award was made.

The contract shall provide that the Contractor agrees to correct any defective or faulty work or material, which may appear within one (1) year after completion of the work and receipt of final payment.

ENFORCEMENT OF SPECIFICATIONS - Copies of the specifications will be placed in the hands of all the assistants to the Engineer and Inspectors employed on the Work, who shall enforce each and every requirement of the contract. Such assistants shall have no authority to vary from such requirements.

DRAWING PLANS - Drawing plans may be obtained **free of charge** from the City's on-line strategic sourcing platform.

SURETY BOND – The Contractor shall execute and record in the public records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, ("Bond"), in accordance with Section 255.05, Florida Statutes (2024), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents.

The successful bidder shall furnish a performance and payment bond in compliance with Section 255.05, Florida Statutes (2024), written by a Corporate Surety company, holding a Certificate of Authority from the Secretary of the Treasury of the United States as acceptable sureties on federal bonds, in an amount equal to the total amount payable by the terms of the contract, executed and issued by a Resident Agent licensed by and having an office in the State of Florida, representing such Corporate Surety, conditioned for the due and faithful performance of the work, and providing in addition to all other conditions, that if the Contractor, or his or its subcontractors, fail to duly pay for any labor, materials, or other supplies used or consumed by such Contractor, or his or its subcontractor or subcontractors, in performance of the work contracted to be done, the Surety will pay the same in the amount not exceeding the sum provided in such bonds, together with interest at the rate of fifteen percent (15%) per annum, and that they shall indemnify and hold harmless the City of Fort Lauderdale to the extent of any and all payments in connection with carrying out of the contract, which the City may be required to make under the law.

The Contractor is required at all times to have a valid surety bond in force covering the work being performed. A failure to have such bond in force at any time shall constitute a default on the part of the Contractor. A bond written by a surety, which becomes disqualified to do business in the State of Florida, shall automatically constitute a failure on the part of the Contractor to meet the above requirements.

Such bond shall continue in effect for one (1) year after completion and acceptance of the work with liability equal to at least twenty-five percent (25%) of contract price, or an additional bond shall be conditioned that the Contractor will correct any defective or faulty work or material which appear within one (1) year after completion of the contract, upon notification by the City, except in contracts which are concerned solely with demolition work, in which cases twenty-five percent (25%) liability will not be applicable.

AUDIT OF CONTRACTOR'S RECORDS - Upon execution of the Contract, the City reserves the right to conduct any necessary audit of the Contractor's records. Such an audit, or audits, may be conducted

by the City or its representatives at any time prior to final payment, or thereafter, for a period up to three (3) years. The City may also require submittal of the records from either the Contractor, the Subcontractor, or both. For the purpose of this Section, records shall include all books of account, supporting documents and papers deemed necessary by the City to assure compliance with the contract provisions.

Failure of the Contractor or Subcontractor to comply with these requirements may result in disqualification or suspension from bidding for future contracts or disapproval as a Subcontractor at the option of the City.

The Contractor shall assure that each of its Subcontractors will provide access to its records pertaining to the project upon request by the City.

PERIODIC ESTIMATE FOR PARTIAL PAYMENT - After the Contractor has submitted a periodic estimate for partial payment, approved and certified by the Public Works Department, the City shall make payment in the manner provided in the Contract Documents and in accordance with Florida's Prompt Payment Act, Section 218, Florida Statutes (2022).

RESERVATION FOR AWARD AND REJECTION OF BIDS - The City reserves the right to accept or reject any or all bids, part of bids, and to waive minor irregularities or variations to specifications contained in bids, and minor irregularities in the bidding process. The City also reserves the right to award the contract on a split order basis, lump sum basis, individual item basis, or such combination as shall best serve the interest of the City. The City reserves the right to make an award to the responsive and responsible bidder whose product or service meets the terms, conditions, and specifications of the ITB and whose bid is considered to best serve the City's interest. In determining the responsiveness of the offer and the responsibility of the Bidder, the following shall be considered when applicable: the ability, capacity and skill of the Bidder to perform as required; whether the Bidder can perform promptly, or within the time specified, without delay or interference; the character, integrity, reputation, judgment, experience and efficiency of the Bidder; the quality of past performance by the Bidder; the previous and existing compliance by the Bidder with related laws and ordinances; the sufficiency of the Bidder's financial resources; the availability, quality and adaptability of the Bidder's supplies or services to the required use; the ability of the Bidder to provide future maintenance, service or parts; the number and scope of conditions attached to the bid.

LOCAL BUSINESS PREFERENCE **-** Section 2-186, Code of Ordinances of the City of Fort Lauderdale, provides for a local business preference. In order to be considered for a local business preference, a proposer must include the Local Business Preference Certification Statement of this ITB, as applicable to the local business preference class claimed at the time of Bid submittal:

Upon formal request of the City, based on the application of a Local Business Preference, the Proposer shall, within ten (10) calendar days, submit the following documentation to the Local Business Preference Class claimed:

a. Copy of City of Fort Lauderdale current year business tax receipt, or Broward County current year business tax receipt, and

b. List of the names of all employees of the proposer and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or Broward County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of bid submittal shall result in the Proposer being found ineligible for the local business preference.

Definitions:

a. The term "Class A business" shall mean any business that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the city, and shall maintain a staffing level for the proposed work of at least fifty percent (50%) who are residents of the City of Fort Lauderdale.

b. The term "Class B business" shall mean any business that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the city, or shall maintain a staffing level for the proposed work of at least fifty percent (50%) who are residents of the City of Fort Lauderdale.

c. The term "Class C business" shall mean any business that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of Broward County.

c. The term "Class D business" shall mean any business that does not qualify as a Class A, Class B, or Class C business.

The complete local business preference ordinance may be found on the City's web site at the following link:
https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-186LOBUPR

DISADVANTAGED BUSINESS ENTERPRISE PREFERENCE - Section 2-185, Code of Ordinances of the City of Fort Lauderdale, provides for a disadvantaged business preference. In order to be considered for a disadvantaged business preference, a proposer must include a certification from a government agency, as applicable to the disadvantaged business preference class claimed at the time of Bid submittal:

Upon formal request of the City, based on the application of a Disadvantaged Business Preference the Proposer shall within ten (10) calendar days submit the following documentation to the Disadvantaged Business Enterprise Preference Class claimed:

a. Copy of City of Fort Lauderdale current year business tax receipt, or the Tri-County (Broward, Dade, West Palm Beach) current year business tax receipt, or proof of active Sunbiz status and

b. List of the names of all employees of the proposer and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or the Tri-County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of bid submittal shall result in the Proposer being found ineligible for the Disadvantaged Business Enterprise Preference business preference.

The complete Disadvantaged Business Preference ordinance may be found on the City's website at the following link: https://www.fortlauderdale.gov/home/showpublisheddocument?id=56883

DEBARRED OR SUSPENDED BIDDERS OR PROPOSERS - The bidder or proposer certifies, by submission of a response to this solicitation, that neither it nor its principals and subcontractors are presently debarred or suspended by any Federal department or agency.

LOBBYING ACTIVITIES - **ALL CONTRACTORS PLEASE NOTE**: Any contractor submitting a response to this solicitation must comply, if applicable, with City of Fort Lauderdale Ordinance No. C-11-42 & Resolution No. 07-101, Lobbying Activities. Copies of Ordinance No., C-11-42, and Resolution No. 07-101, may be obtained from the City Clerk's Office at 1 East Broward Boulevard, Suite 444, Fort Lauderdale, Florida 33301.

The Ordinance may also be viewed on the City's website at https://www.fortlauderdale.gov/home/showdocument?id=6036.

-END OF SECTION-

GENERAL CONDITIONS

Unless otherwise modified in the Project's Special Conditions, the following General Conditions shall be part of the Contract:

GC - 01 - DEFINITIONS - The following words and expressions, or pronouns used in their stead, shall wherever they appear in the Contract and the Contract Documents, be construed as follows:

"Addendum" or "Addenda" - shall mean the additional Contract provisions issued in writing, by the Engineer, prior to the receipt of bids.

"Bid" – shall mean the offer or bid of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

"Bidder" – shall mean any person, firm, company, corporation or entity submitting a bid for the Work.

"Bonds" –shall mean bid, performance and payment bonds and other instruments of security, furnished by Contractor and his surety in accordance with the Contract Documents.

"City" – shall mean the City of Fort Lauderdale, Florida, a Florida municipal corporation. In the event the City exercises its regulatory authority as a government body, the exercise of such regulatory authority and the enforcement of any rules, regulations, codes, laws and ordinances shall be deemed to have occurred pursuant to City's authority as a governmental body and shall not be attributable in any manner to the City as a party to this Contract.

"Consultant" – shall mean a person, firm, company, corporation or other entity employed by the City to perform the professional services for the project.

"Contractor" – shall mean the successful Bidder who has been employed by the City to perform the construction and related services for the project.

"Contract Work" - shall mean everything expressed or implied to be required to be furnished and furnished by the Contractor by any one or more of the parts of the Contract Documents referred to in the Contract hereof. In the case of any inconsistency in or between any parts of this Contract, the Project Manager shall determine which shall prevail.

"Design Documents" – shall mean the construction plans and specifications included as part of a Bid Solicitation prepared either by the City or by the Consultant under a separate Agreement with the City.

"Engineer" - shall include the terms "professional engineer" and "licensed engineer" and means a person who is licensed to engage in the practice of engineering under Florida Statute, Chapter 471. An Engineer may be a City employee or a consultant hired by the City.

"Extra Work" - shall mean work other than that required by the Contract.

"Inspector" – shall mean an authorized representative of the City assigned to make necessary inspections of materials furnished by Contractor and of the Work performed by Contractor.

"Notice" - shall mean written notice sent by certified United States mail, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or via fax or email, or by hand delivery with a request for a written receipt of acknowledgment of delivery and shall be served upon the Contractor either personally or to its place of business listed in the Bid.

“Owner” - shall mean the City of Fort Lauderdale.

“Project Manager” - shall mean a professional designated by the City to manage the Project under the supervision and direction of the Public Works Director or designee.

"Public Works Director" – shall mean the Public Works Director of the City of Fort Lauderdale.

"Site" - shall mean the area upon or in which the Contractor's operations are carried out and such other areas adjacent thereto as may be designated as such by the Project Manager.

"Sub-contractor" - shall mean any person, firm, company, corporation or other entity, other than employees of the Contractor, who or which contracts with the contractor, to furnish, or actually furnishes labor and materials, or labor and equipment, or labor, materials and equipment at the site.

"Surety" - shall mean any corporation or entity that executes, as Surety, the Contractor's performance and payment bond securing the performance of this Contract.

GC - 02 - SITE INVESTIGATION AND REPRESENTATION - The Contractor acknowledges that it has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Site, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, field conditions, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.

The Contractor acknowledges that it has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, moisture conditions and all year-round local weather and climate conditions (past and present), and, in reliance on such tests, examination and investigations conducted by Contractor and the Contractor’s experts, has determined that no conditions exist that would in any manner affect the Bid Price and that the project can be completed for the Bid Price submitted.

Any failure by the Contractor to acquaint itself with all the Site conditions shall not relieve Contractor from responsibility for properly estimating the difficulty or cost thereof under the Contract Documents.

GC - 03 - SUBSTITUTIONS - If the Contractor desires to use materials and/or products of manufacturer's names different from those specified in the Contract Documents, the Bidder requesting the substitution shall make written application as described herein. The burden of proving the equality of the proposed substitution rests on the Contractor making the request. To be acceptable, the proposed substitution shall meet or exceed all expressed requirements of the Contract Documents and shall be submitted upon the Contractor's letterhead. The following requirements shall be met in order for the substitution to be considered:

1. Requests for substitution shall be accompanied by such technical data, as the party making the request desires to submit. The Project Manager will consider reports from

reputable independent testing laboratories, verified experience records from previous users and other written information valid in the circumstances; and

2. Requests for substitution shall completely and clearly indicate in what respects the materials and/or products differ from those indicated in the Contract Documents; and

3. Requests for substitutions shall be accompanied by the manufacturer's printed recommendations clearly describing the installation, use and care, as applicable, of the proposed substitutions; and

4. Requests for substitution shall be accompanied by a complete schedule of changes in the Contract Documents, if any, which must be made to permit the use of the proposed substitution.

If a proposed substitution is approved by the Project Manager, an addendum will be issued to prospective bidders not less than three (3) working days prior to the date set for opening of bids. Unless substitutions are received and approved as described above, the successful Bidder shall be responsible for furnishing materials and products in strict accordance with the Contract Documents.

GC- 04 – CONSTRUCTION RESOURCES – Contractor shall provide all labor and equipment necessary to complete the installation within a timely manner. Contractor shall provide details as to manpower and equipment to be dedicated to the project in its Work Plan. Contractor is responsible for making arrangements, obtaining and purchasing construction water services if required to complete the work.

GC - 05 - CONTROL OF THE WORK - The Project Manager shall have full control and direction of the Work in all respects. The Project Manager and/or his authorized designee(s) shall, at all times, have the right to inspect the Work and materials. The Contractor shall furnish all reasonable facilities for obtaining such information, as the Project Manager may desire respecting the quality of the Work and materials and the manner of conducting the Work. Should the Contractor be permitted to perform night Work, or to vary the period which work is ordinarily carried on in the daytime, he shall give ample notice to the Project Manager so that proper and adequate inspection may be provided. Such Work shall be done only under such regulations as are furnished in writing by the Project Manager, and no extra compensation shall be allowed to the Contractor, therefore. In the event of night work, the Contractor shall furnish such light, satisfactory to the Project Manager, as will ensure proper inspection. Nothing herein contained shall relieve the Contractor from compliance with any and all City ordinances relating to noise or Work during prohibited hours.

GC - 06 - SUB-CONTRACTOR - The Contractor shall not sublet, in whole or any part of the Work without the written consent and approval of the Project Manager. Within ten (10) days after official notification of starting date, the Contractor must submit in writing, to the Project Manager, a list of all Sub-contractors. No Work shall be done by any sub-contractor until such Sub-contractor has been officially approved by the Project Manager. A sub-contractor not appearing on the original list will not be approved without written request submitted to the Project Manager and approved by the Public Works Director. In all cases, the Contractor shall give his personal attention to the Work of the Sub-contractors and the Sub-contractor is liable to be discharged by the Contractor, at the direction of the Project Manager, for neglect of duty, incompetence or misconduct.

Acceptance of any sub-contractor, other person, or organization by the Project Manager shall not constitute a waiver of any right of Project Manager to reject defective Work or Work not in conformance with the Contract Documents.

Contractor shall be fully responsible for all acts and omissions of its Sub-contractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relationship between City and any sub-contractor or other person or organization having a direct contract with Contractor, nor shall it create any obligation on the part of City to pay or to see to the payment of any moneys due to any sub-contractor or other person, or organization, except as may otherwise be required by law.

GC - 07 - **QUANTITIES** - Contractor recognizes and agrees that the quantities shown on plans and Bid/Price Schedule are estimates only and may vary during actual construction. No change shall be made involving any departure from the general scheme of the Work and that no such change involving a material change in cost, either to the City or Contractor, shall be made, except upon written permission of the City. However, the Project Manager shall have the right to make minor alternations in the line, grade, plan, form or materials of the Work herein contemplated any time before the completion of the same. That if such alterations shall diminish the quantity of the Work to be done, such alterations shall not constitute a claim for damages or anticipated profits. That if such alterations increase the amount of the Work to be done, such increase shall be paid for according to the quantity actually performed and at the unit price or prices stipulated therefore in the Contract. The City shall, in all cases of dispute, determine the amount or quantity of the several kinds of Work which are to be paid for under this Contract, and shall decide all questions relative to the execution of the same, and such estimates and decisions shall be final and binding.

Any Work not herein specified, which might be fairly implied as included in the Contract, of which the City shall judge, shall be done by the Contractor without extra charge. However, such cost increases shall be authorized either by the Public Works Director or designee, or the City Commission based upon the purchasing threshold amounts provided for in Chapter 2 of the City of Fort Lauderdale's Code of Ordinances.

GC - 08 - NO ORAL CHANGES - Except to the extent expressly set forth in the Contract, no change in, or modification, termination or discharge of the Contract in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the parties charged, therewith or their duly authorized representative.

GC - 09 - PERMITS AND PROTECTION OF PUBLIC – Permits on file with the City and/or those permits to be obtained by the Contractor, shall be considered directive in nature, and will be considered a part of this Contract. A copy of all permits shall be given to the City and become part of the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

Contractor shall secure all permits and licenses required for completing the Project. Contractor will obtain the necessary State, County, and City construction/work permits if required.

The Contractor shall comply with all applicable Codes, Standards, Specifications, etc. related to all aspects of the Project.

Where there are telephones, light or power poles, water mains, conduits, pipes or drains or other construction, either public or private, in or on the streets or alleys, the Work shall be so conducted that no interruption or delay will be caused in the operation or use of the same. Proper written notice shall be given to all affected parties prior to proceeding with the Work.

The Contractor shall not be permitted to interfere with public travel and convenience by grading or tearing up streets indiscriminately, but the Work of constructing the various items in this contract shall proceed in an orderly, systematic and progressive manner.

GC - 10 - DISEASE REGULATIONS - The Contractor shall enforce all sanitary regulations and take all precautions against infectious diseases as the Project Manager may deem necessary. Should any infectious or contagious diseases occur among his employees, he shall arrange for the immediate removal of the employee from the Site and isolation of all persons connected with the Work.

GC - 11 - CONTRACTOR TO CHECK PLANS, SPECIFICATIONS, AND DATA - The Contractor shall verify all dimensions, quantities, and details shown on the plans, supplementary drawings, schedules, and shall notify the Project Manager of all errors, omissions, conflicts and discrepancies found therein within three (3) working days of discovery. Failure to discover or correct errors, conflictions, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction, or improper operation resulting therefrom nor from rectifying such condition at its own expense.

GC - 12 - MATERIALS AND WORKMANSHIP - All material shall be new and the workmanship shall, in every respect, be in conformity with approved modern practice and with prevailing standards of performance and quality. In the event of a dispute, the Project Manager's decision shall be final. Wherever the Plans, Specifications, Contract Documents, or the directions of the Project Manager are unclear as to what is permissible and/or fail to note the quality of any Work, that interpretation will be made by the Project Manager, which is in accordance with approved modern practice, to meet the particular requirements of the Contract.

GC - 13 - SAFEGUARDING MARKS - The Contractor shall safeguard all points, stakes, grade marks, monuments, and benchmarks made or established on the Work, bear the cost of re-establishing same if disturbed, or bear the entire expense of rectifying Work improperly installed due to not maintaining or protecting or for removing without authorization, such established points, stakes and marks. The Contractor shall safeguard all existing and known property corners, monuments and marks not related to the Work and, if required, shall bear the cost of having them re-established by a licensed Professional surveyor registered in the State of Florida if disturbed or destroyed during the course of construction.

GC - 14 - RESTROOM FACILITIES - Contractor shall provide portable toilet facilities for employee's use at a location within the Work site to be determined by the City.

GC - 15 - PROGRESS MEETINGS - Weekly Status meetings will be conducted with representatives from the City and the Contractor. Contractor shall budget time to participate in such meetings. A well-run Project should result in short meetings.

GC - 16 - ISSUE RESOLUTION - Should Contractor become engaged in a dispute with a resident or a City employee, the Contractor shall report the situation to the Project Manager immediately. It shall be mandatory that the City participate in any dispute resolution. Failure of Contractor personnel to notify the City shall obligate Contractor to replace the offending employee immediately if requested by the City.

GC - 17 - CITY SECURITY-CONTRACTOR AND SUBCONTRACTOR EMPLOYEE INFORMATION - Prior to commencing work, Contractor shall provide to the City a list of all personnel and sub-contractors on site. The list will include the name, address, birth date and driver's license number for all personnel. All personnel and subcontractors on site will have on their person a company

photo ID during all stages of the construction. Contractor shall provide standard required personal information per current City procedures.

GC - 18 - POST-CONSTRUCTION SURVEY - The Contractor shall provide as-built survey, sealed and signed by a registered surveyor in the State of Florida, as a condition of final payment.

GC – 19 - KEY PERSONNEL - Contractor shall provide as part of the Work Plan, resumes for all key project personnel providing supervision and project management functions. Resumes shall include work history and years of experience performing this type of work.

GC - 20 - EXISTING UTILITY SERVICE - All existing utility service shall be maintained with a minimum of interruption at the expense of the Contractor.

GC - 21 - JOB DESCRIPTION SIGNS – Contractor, at Contractor's expense, shall furnish, erect, and maintain suitable weatherproof signs on jobs over $100,000 containing the following information:

1. City Seal (in colors)
2. Project or Improvement Number
3. Job Description
4. Estimated Cost
5. Completion Date

Minimum size of sign shall be four feet high, eight feet wide and shall be suitably anchored. The entire sign shall be painted and present a pleasing appearance. Exact location of signs will be determined in the field. Two (2) signs will be required, one at each end of the job. All costs of this work shall be included in other parts of the work.

GC - 22 - FLORIDA EAST COAST RIGHT-OF-WAY - Whenever a City contractor is constructing within the Florida East Coast Railway Company's Right-of-Way, it will be mandatory that the contractor carry bodily injury and property damage insurance in amounts satisfactory to the Florida East Coast Company. This insurance requirement shall be verified by the contractor with the Florida East Coast Company prior to commencing work, and maintained during the life of the Contract.

GC - 23 - ACCIDENTS - The Contractor shall provide such equipment and facilities as are necessary and/or required, in the case of accidents, for first aide services to be provided to a person who may be injured during the project duration. The Contractor shall also comply with the OSHA requirements as defined in the United States Labor Code 29 CFR 1926.50.

In addition, the Contractor must report immediately to the Project Manager every accident to persons or damage to property, and shall furnish in writing full information, including testimony of witnesses regarding any and all accidents.

GC - 24 - SAFETY PRECAUTIONS - Contractor must adhere to the applicable environmental protection guidelines for the duration of a project. If hazardous waste materials are used, detected or generated at any time, the Project Manager must be immediately notified of each and every occurrence. The Contractor shall comply with all codes, ordinances, rules, orders and other legal requirements of public authorities (including OSHA, EPA, DERM, the City, Broward County, State of Florida, and Florida Building Code), which bear on the performance of the Work.

The Contractor shall take the responsibility to ensure that all Work is performed using adequate safeguards, including but not limited to: proper safe rigging, safety nets, fencing, scaffolding, barricades, chain link fencing, railings, barricades, steel plates, safety lights, and ladders that are

necessary for the protection of its employees, as well as the public and City employees. All riggings and scaffolding shall be constructed with good sound materials, of adequate dimensions for their intended use, and substantially braced, tied or secured to ensure absolute safety for those required to use it, as well as those in the vicinity. All riggings, scaffolding, platforms, equipment guards, trenching, shoring, ladders and similar actions or equipment shall be OSHA approved, as applicable, and in accordance with all Federal, State and local regulations.

GC - 25 - DUST PREVENTION - The Contractor shall, by means of a water spray, or temporary asphalt pavement, take all necessary precautions to prevent or abate a dust nuisance arising from dry weather or Work in an incomplete stage. All costs of this Work shall be included in the cost of other parts of the Work.

Should the Contractor fail to abate a dust nuisance the Project Manager may stop the Work until the issue is resolved to the City's satisfaction.

GC - 26 - SITE CLEANUP AND RESTORATION – The Contractor shall remove all debris and unused or discarded materials from the work site daily. Contractor shall clean the work site to remove all directional drilling "Driller's Mud" materials. No "Driller's Mud" residue shall be allowed to remain in the soil or on the surface of the land or vegetation. All debris and drilling materials must be disposed of offsite at an approved location.

The Contractor shall promptly restore all areas disturbed that are outside the Project limits in equal or better condition at no additional cost to the City.

GC - 27 - COURTEOUS BEHAVIOR AND RESPECT FOR RESIDENTS AND PROPERTY – The Contractor and its employees, associates and sub-contractors shall maintain courteous behavior at all times and not engage in yelling, loud music, or other such activities. Contractor's employees shall not leave trash or other discarded items at the Work Site, especially on any private property. In the event complaints arise, Contractor shall immediately remove such offending employees from the project if requested to do so by the Project Manager. Contractor's employees shall not trespass on any private property unless necessary to complete the work but with prior permission from the owner.

Contractor shall notify and obtain permission from the residents 24 hours in advance when planning to work within the resident's property. In addition, Contractor shall notify the resident prior to entering their property to perform work or inspect/investigate the work site. Contractor shall not block residents' driveways unnecessarily. Contractor shall not park equipment on landscaped areas when the vehicle is not needed for the current construction activities. Contractor shall be responsible for repair and/or replacement of all damaged landscaping within 48 hours including repairing vehicle wheel impressions, irrigation systems, lighting systems, structures, or any other items of resident's property. Contractor shall not destroy, damage, remove, or otherwise negatively impact any landscaping within or outside the right-of-way without prior approval from the Project Manager.

GC - 28 - PLACING BARRICADES AND WARNING LIGHTS - The Contractor shall furnish and place, at Contractor's own expense, all barricades, warning lights, automatic blinker lights and such devices necessary to properly protect the work and vehicular and pedestrian traffic. Should the Contractor fail to erect or maintain such barricades, warning lights, etc., the Project Manager may, after 24 hours' notice to the Contractor, proceed to have such barricades and warning lights placed and maintained by City or other forces and all costs incurred thereof charged to the Contractor and may be retained by the City from any monies due, or to become due, to the Contractor.

GC - 29 - TRAFFIC CONTROL - The Contractor shall coordinate all Work and obtain, through the City's Transportation and Mobility Department, Broward County, Florida Department of

Transportation, as applicable, any permits required to detour traffic or close any street before starting to work in the road.

All traffic control devices, flashing lights, signs and barricades shall be maintained in working condition at all times and conform to Manual of Uniform Traffic Control Devices (MUTCD), latest edition.

GC - 30 - COORDINATION - The Contractor shall notify all utilities, transportation department, etc., in writing, with a copy to the Project Manager before construction is started and shall coordinate its Work with them. The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal, construction and rearrangement operations in order that services rendered by these parties will not be unnecessarily interrupted.

The Contractor shall arrange its Work and dispose of its materials so as to not interfere with the operation of other contractors engaged upon adjacent work, and to join its Work to that of others in a proper manner, and to perform its Work in the proper sequence in relation to that of other contractors as may be directed by the Project Manager.

Each Contractor shall be responsible for any damage done by it or its agents to the work performed by another contractor.

GC - 31 - WATER - Bulk water used for construction, flushing pipelines, and testing shall be obtained from fire hydrants. Contractor shall make payment for hydrant meter at Treasury Billing Office, 1st Floor, City Hall, 100 N. Andrews Avenue. With the paid receipt, contractor can pick up hydrant meter at the utility location office. No connection shall be made to a fire hydrant without a meter connected.

GC - 32 - PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES - Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and that it does not have business operations in Cuba or Syria, as provided in Section 287.135, Florida Statutes (2024), as may be amended or revised. The Contractor certifies that it is not on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2024), as may be amended or revised, and that it is not engaged in a boycott of Israel. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of Section 287.135, Florida Statutes (2024), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2024), as may be amended or revised, or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2024), as may be amended or revised.

By submitting a bid or response, the company, principals, or owners certify that it is not listed on the Scrutinized Companies with Activities in Sudan List or listed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria.

GC - 33 - USE OF FLORIDA LUMBER TIMBER AND OTHER FOREST PRODUCTS - In accordance with Florida Statute 255.20 (3), the City specifies that lumber, timber, and other forest products used for this Project shall be produced and manufactured in the State of Florida if such products are

available and their price, fitness, and quality are equal. This requirement does not apply to plywood specified for monolithic concrete forms, if the structural or service requirements for timber for a particular job cannot be supplied by native species, or if the construction is financed in whole or in part from federal funds with the requirement that there be no restrictions as to species or place of manufacture.

The Bidder affirms by submitting a bid response to this solicitation that they will comply with section 255.20 (3) Florida Statutes.

GC - 34 - PUBLIC RECORDS/TRADE SECRETS/COPYRIGHT: The Proposer's response to the Solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this Solicitation and the Contract to be executed for this Solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.

Any language contained in the Bidder's response to the Solicitation purporting to require confidentiality of any portion of the Bidder's response to the Solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Bidder submits any documents or other information to the City which the Bidder claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Bidder shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Bidder must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Bidder's response to the Solicitation constitutes a Trade Secret. The City's determination of whether an exemption applies shall be final, and the bidder agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as public records. In addition, the bidder agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and agents, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as exempt from disclosure or confidential. Bids purporting to be subject to copyright protection in full or in part will be rejected. The bidder authorizes the City to publish, copy, and reproduce any and all documents submitted to the City bearing copyright symbols or otherwise purporting to be subject to copyright protection.

EXCEPT FOR CLEARLY MARKED PORTIONS THAT ARE BONA FIDE TRADE SECRETS PURSUANT TO FLORIDA LAW, DO NOT MARK YOUR RESPONSE TO THE SOLICITATION AS PROPRIETARY OR CONFIDENTIAL. DO NOT MARK YOUR RESPONSE TO THE SOLICITATION OR ANY PART THEREOF AS COPYRIGHTED.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES (2022), TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

Telephone Number: **(954) 828-5002**

Mailing Address: **City Clerk's Office**
1 East Broward Boulevard, Suite 444
Fort Lauderdale, FL 33301

E-mail: **prrcontract@fortlauderdale.gov**

Contractor shall:

1. Keep and maintain public records required by the City in order to perform the service.

2. Upon request from the City's custodian of public records, provide the City with a copy 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 in Chapter 119, Florida Statutes (2022), as may be amended or revised, or as otherwise provided by law.

3. 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 contract term and following completion of this Agreement if the Contractor does not transfer the records to the City.

4. Upon completion of the Agreement, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

GC – 35 - ANTI-HUMAN TRAFFICKING, KIDNAPPING, CUSTODY AND RELATED OFFENSES - Bidder, proposer, quoter, or any other respondent to any City solicitation/notice or serving as a City consultant, contractor, vendor or otherwise entering into any contract (including, without limitation, contract renewal, extension, amendment as applicable) with the City affirms and stipulates that it is not in violation of Section 787.06(13) of the 2024 Florida Statutes entitled "Kidnapping; Custody Offenses; Human Trafficking and Related Offenses." The entity (which includes any business entity however formed/ incorporated) intending to provide goods or services by submitting a response to a city solicitation further affirms to the City as a governmental entity defined in Section 287.138(1) of the 2024 Florida Statutes that it does not use coercion for labor or services as defined in Section 787.06 of the 2024 Florida Statutes.

-END OF SECTION-

SPECIAL CONDITIONS

01. PURPOSE

The City of Fort Lauderdale, Florida (City) is seeking bids from qualified, experienced, and licensed firm(s), hereinafter referred to as the Contractor, Bidder, or Proposer, to provide construction services for the City, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid (ITB).

02. TRANSACTION FEES

The City uses the City's on-line strategic sourcing platform INFOR, to distribute and receive bids and proposals. There is no charge to vendors/contractors to register and participate in the solicitation process, nor will any fees be charged to the awarded contractor.

03. SUBMISSION OF BIDS

It is the sole responsibility of the Contractor to ensure that its bid is submitted electronically through the City's on-line strategic sourcing platform, and that any bid security reaches the City of Fort Lauderdale, Procurement Services Division, 101 North East 3rd Avenue, Suite 1650, Fort Lauderdale, Florida 33301-1016, in a sealed envelope marked on the outside with the ITB solicitation number and Contractor's name, no later than the time and date specified in this solicitation. **PAPER BID SUBMITTALS WILL NOT BE ACCEPTED. PLEASE SUBMIT YOUR BID RESPONSE ELECTRONICALLY.** In the event of any conflict or discrepancy between bid price(s) submitted by bidder electronically into the City's online strategic sourcing platform Unit Price field(s), any other forms or attachments (whether part of the City's solicitation documents or documents created and uploaded by the bidder, or another section/field of the System, the online unit price(s) **inputted** electronically into the System by the bidder shall govern.

04. INFORMATION OR CLARIFICATION

For information concerning procedures for responding to this solicitation, contact Senior Procurement Specialist Paulette Hemmings Turner at (954) 828-5139 or email at PTurner@fortlauderdale.gov. Such contact shall be for clarification purposes only.

For information concerning technical specifications, please utilize the question / answer feature provided by the City's on-line strategic sourcing platform. Questions of a material nature must be received prior to the cut-off date specified in the RFP Schedule. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. Contractors. Please note: Proposals shall be submitted as stated in PART IV – Submittal Requirements. No part of your proposal can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the Contractor has familiarized themselves with the nature and extent of the work, and the equipment, materials, and labor required. The entire proposal must be submitted in accordance with all specifications contained in this solicitation. The questions and answers submitted in the City's on-line strategic sourcing platform shall become part of any contract that is created from this ITB.

05. CONTRACT TIME

5.1 The Contractor recognizes that TIME IS OF THE ESSENCE. The Work shall commence within **30** calendar days of the date of the Notice to Proceed.

5.2 The Work shall be Substantially Completed within **500** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within **590** calendar days after the Contract Time commences to run as provided in the Notice to Proceed.

06. BID SECURITY

A certified check, cashier's check, bank officer's check or bid bond for **FIVE percent (5%)** of the bid amount, made payable to the City of Fort Lauderdale, shall accompany each offer.

07. REQUIRED LICENSES/CERTIFICATIONS

Contractor must possess the following licenses/certifications to be considered for award:

Possession of the following is required for this Project: Florida Certified General Contractor License or any other State or County License(s), Certification(s) or Registration(s) deemed legally permissible by the City to conduct the nature of the work required in this solicitation. is required for this Project. Bidder should submit a copy of license to be submitted with bid response.

Any sub-contractors employed by the Proposer shall be licensed and insured in accordance with this solicitation. Additionally, it is the Proposer's responsibility for ensuring that any sub-contractors' work meets the requirements of this solicitation at all times.

Note: Contractor must have proper licensing and shall submit evidence of same with its bid response.

08. SPECIFIC EXPERIENCE REQUIRED

The following expertise is required to be considered for this Contract. Specific references attesting to this expertise must be submitted with the bid response.

The contractor shall have previous construction experience in constructing: stormwater drainage pipe ranging from 12 inches to 42 inches, cured in place pipe (CIPP) lining, and water & sewer main pipe installation ranging from 6 inches to 12 inches in the State of Florida within the last five (5) years. Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

NOTE: REFERENCES SHALL NOT INCLUDE CITY OF FORT LAUDERDALE EMPLOYEES OR WORK PERFORMED FOR THE CITY. THE CITY IS ALSO INTERESTED IN WORK EXPERIENCE AND REFERENCES FROM ENTITIES OTHER THAN THE CITY OF FORT LAUDERDALE.

By signing this bid solicitation, contractor is affirming that this expertise will be provided for this Contract at no additional charge.

09. BID ALLOWANCE

Allowance for permits: Payments will be made to the contractor based on the actual cost of permits upon submission of paid permit receipts. The City shall not pay for other costs related to obtaining or securing permits.

The amount indicated is intended to be sufficient to cover the entire Project. If the City's permit fees

exceed the allowance indicated, the City will reimburse the contractor the actual amount of the City's permit fees required for project completion.

Allowances	Amount
Permits, License and Fee Allowance	$600,000.00
Contaminated Soil and/or Groundwater Services	$200,000.00
FPL and Unanticipated Support of Existing Power Poles	$250,000.00
Emergency Pumping During Storm Event	$250,000.00
TOTAL:	**$1,300,000.00**

Contingencies	Amount
Undefined Conditions Allowance	$2,000,000.00
TOTAL:	**$2,000,000.00**

10. INSURANCE REQUIREMENTS *(See Article 10, Bonds and Insurance, of the Contract for details)*

Insurance

As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, Contractor shall, at its sole expense, provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of Contractor. Contractor shall provide the City a certificate of insurance evidencing such coverage. Contractor's insurance coverage shall be primary insurance for all applicable policies, in respect to the City's interests for this Agreement. The limits of coverage under each policy maintained by Contractor shall not be interpreted as limiting Contractor's liability and obligations under this Agreement. All insurance policies shall be through insurers authorized or eligible to write policies in the State of Florida and possess an A.M. Best rating of A-, VII or better, subject to approval by the City's Risk Manager.

The coverages, limits, and/or endorsements required herein protect the interests of the City, and these coverages, limits, and/or endorsements shall in no way be relied upon by Contractor for assessing the extent or determining appropriate types and limits of coverage to protect Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this Agreement.

The following insurance policies and coverages are required:

Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

- $5,000,000 each occurrence and $5,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
- $5,000,000 each occurrence and $5,000,000 aggregate for Products and Completed Operations

Policy must include coverage for contractual liability and independent contractors.

The City, a Florida municipality, its officials, employees, and volunteers are to be included as an additional insured with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the City, its officials, employees, and volunteers.

Pollution and Remediation Legal Liability (Hazardous Materials)
For the purpose of this section, the term "hazardous materials" includes all materials and substances that are designated or defined as hazardous by Florida or federal law or by the rules or regulations of Florida or any federal agency. If work being performed involves hazardous materials, Contractor shall procure and maintain any or all of the following coverages (which will be specifically addressed upon review of exposure):

Contractors Pollution Liability Coverage
For sudden and gradual occurrences and in an amount not less than $1,000,000 per claim arising out of this Agreement, including but not limited to, all hazardous materials identified under the Agreement.

Business Automobile Liability
Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than $1,000,000 combined single limit each accident.

If Contractor does not own vehicles, Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Crane and Rigging Liability
If the contractor will be utilizing crane and rigging, coverage must be afforded for any crane operations under the Commercial General or Business Automobile Liability policy as necessary, in line with the limits of the associated policy.

Workers' Compensation and Employer's Liability
Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the City must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the City's Risk Manager, if they are in accordance with Florida Statute.

Contractor waives, and Contractor shall ensure that Contractor's insurance carrier waives, all subrogation rights against the City, its officials, employees, and volunteers for all losses or damages. The City requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

Contractor must be in compliance with all applicable State and federal workers' compensation laws.

Insurance Certificate Requirements

a) Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than ten (10) days prior to the start of work contemplated in this Agreement.
b) Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.

c) In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.

d) In the event the Agreement term or any surviving obligation of Contractor following expiration or early termination of the Agreement goes beyond the expiration date of the insurance policy, Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.

e) The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.

f) The City shall be included as an Additional Insured on all liability policies, with the exception of Workers' Compensation.

g) The City shall be granted a Waiver of Subrogation on Contractor's Workers' Compensation insurance policy.

h) The title of the Agreement, Bid/Contract number, or other identifying reference must be listed on the Certificate of Insurance.

<u>The Certificate Holder should read as follows:</u>
City of Fort Lauderdale
c/o Procurement Division
401 SE 21st Street
Fort Lauderdale, FL 33316

Contractor has the sole responsibility for all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the application of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for including the City as an Additional Insured shall be at Contractor's expense.

If Contractor's primary insurance policy/policies do not meet the minimum requirements as set forth in this Agreement, Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

Contractor's insurance coverage shall be primary insurance in respect to the City's interests for this Agreement, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the City shall be non-contributory.

Any exclusion or provision in any insurance policy maintained by Contractor that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

All required insurance policies must be maintained until the Agreement work has been accepted by the City, or until this Agreement is terminated, whichever is later. Any lapse in coverage may be considered breach of contract. In addition, Contractor must provide to the City confirmation of coverage renewal via an updated certificate of insurance should any policies expire prior to the expiration of this Agreement. The City reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement to Contractor's insurance company or companies and the City's Risk Management office as soon as practical.

It is Contractor's responsibility to ensure that any and all of Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of Contractor. The City reserves the right to adjust insurance limits from time to time at its discretion with notice to Contractor.

NOTE: CITY PROJECT NUMBER, PROJECT NAME AND BID NUMBER MUST APPEAR ON EACH CERTIFICATE, AND THE CITY OF FORT LAUDERDALE MUST BE NAMED ON THE CERTIFICATE AS AN "ADDITIONAL INSURED" ON REQUIRED LIABILITY POLICIES.

A Sample Insurance Certificate shall be included with the bid to demonstrate the firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the insurance companies' names for all required coverage, and the dollar amounts of the coverage.

11. PERFORMANCE AND PAYMENT BOND: 100%

12. CITY PROJECT MANAGER

The Project Manager is hereby designated by the City as Deborah Cueva, PE, Project Manager II whose address is 101 NE 3rd Ave, Suite 1410, fort Lauderdale, FL 33301, telephone number: (954) 828-5807, and e-mail address is DCueva@fortlauderdale.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

13. LIQUIDATED DAMAGES *(See Article 16, Liquidated Damages, of the Contract for details)*

Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of One **Thousand Dollars ($1,000.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. (See Article 16, Liquidated Damages Clause, of the Contract)

14. PAYMENT (*See Article 7, Payment, of the Contract for other details*)

Payment on this Contract will be made by check.

15. WORK SCHEDULE (including overtime hours):

Regular work hours: **8:00 am to 5:00 pm, Monday through Friday.**
City Inspector Hours: **8:00 am to 4:30 pm, Monday through Friday.**

Any inspection requested by the contractor outside those hours will be considered overtime to be paid by the Contractor.

16. INSPECTION OVERTIME COST: $100/hr.

-END OF SECTION-

CITY OF FORT LAUDERDALE
CONSTRUCTION AGREEMENT

THIS Agreement made and entered into this _____ day of _____, 2025, by and between the City of Fort Lauderdale, a Florida municipal corporation ("City") and _____, a Florida company/corporation ("Contractor"), ("Party" or collectively "Parties");

WHEREAS, the City desires to retain a contractor for the Project as expressed in its Invitation to Bid No. _____, Project Number _____, which was opened on _____; and

WHEREAS, the Contractor has expressed its willingness and capability to perform the necessary work to accomplish the Project;

NOW, THEREFORE, the City and the Contractor, in consideration of the mutual covenants and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, agree as follows:

ARTICLE 1 – DEFINITIONS

Whenever used in this Agreement or in other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural forms:

1.1 Agreement – This written Agreement between the City and the Contractor covering the work to be performed including other Contract Documents that are attached to or incorporated in the Agreement.

1.2 Application for Payment – The form accepted by the City which is to be used by the Contractor in requesting progress or final payment and which is to include such supporting documentation as is required by the Contract Documents.

1.3 Approve – The word approve is defined to mean review of the material, equipment or methods for general compliance with design concepts and with the information given in the Contract Documents. It does not imply a responsibility on the part of the City to verify in every detail conformance with plans and specifications.

1.4 Bid – The offer or Bid of the Contractor submitted on the prescribed form setting forth the total prices for the Work to be performed.

1.5 Bid Documents – Advertisement for Invitation to Bids, the Instructions to Bidders, the Bid Form (with supplemental affidavits and sample agreements), the Contract Forms, General Conditions, the Supplementary Conditions, the Specifications, and the Plans, which documents all become an integral part of the Contract Documents.

1.6 Certificate of Substantial Completion - Certificate provided by the City certifying that all Work, excluding the punch list items, has been completed, inspected, and accepted by the City.

1.7 Change Order - A written document executed by both Parties ordering a change in the Contract Price or Contract Time or a material change in the Work.

SAMPLE CONSTRUCTION AGREEMENT

1.8 City – The City of Fort Lauderdale, Florida, including but not limited to its employees, agents, officials, representatives, contractors, subcontractors, volunteers, successors and assigns, with whom the Contractor has entered into the Agreement and for whom the Work is to be provided.

1.9 Contract Documents – The Contract Documents shall consist of this Agreement, Exhibits to this Agreement, Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance, Notice of Award and Notice to Proceed, General Conditions, Special Conditions, Technical Specifications, Plans/Drawings, Addenda, Bid Form and supplement Affidavits and Agreements, all applicable provisions of State and Federal Law and any modification, including Change Orders or written amendments duly delivered after execution of Agreement, Invitation to Bid, Instructions to Bidders and Bid Bond, Contractor's response to the City's Invitation to Bid, Schedule of Completion, Schedule of Values, all amendments, modifications and supplements, work directive changes issued on or after the Effective Date of the Agreement, as well as any additional documents that are required to be submitted under the Agreement.

Permits on file with the City and/or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement. A copy of all permits shall be given to the City for inclusion in the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

1.10 Contract Price – The amount established in the bid submittal and award by the City's City Commission, as may be amended by Change Order.

1.11 Contract Time – The number of calendar days stated in the Agreement for the completion of the Work. The dates on which the work shall be started and shall be completed as stated in the Notice to Proceed.

1.12 Contractor – The person, firm, company, or corporation with whom the City has entered into the Agreement, including but not limited to its employees, agents, representatives, contractors, subcontractors, their subcontractors and their other successors and assigns.

1.13 Day – A calendar day of twenty-four (24) hours ending at midnight.

1.14 Defective – When modifying the word "Work" refers to work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Project Manager's recommendation of final payment.

1.15 Effective Date of the Agreement – The effective date of the Agreement shall be the date the City Commission approves the work.

1.16 Final Completion Date – The date the Work is completed, including completion of the final punch list, and delivered along with those items specified in the Contract Documents and is accepted by the City.

1.17 Hazardous Materials (HAZMAT) - Any solid, liquid, or gaseous material that is toxic, flammable, radioactive, corrosive, chemically reactive, or unstable upon prolonged storage in quantities that could pose a threat to life, property, or the environment defined

SAMPLE CONSTRUCTION AGREEMENT

in Section 101(14) of Comprehensive Environmental Response, Compensation and Liability Act of 1980 and in 40 CFR 300.6. Also defined by 49 CFR 171.8 as a substance or material designated by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated.

1.18 Hazardous Substance - As defined by Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act; any substance designated pursuant to Section 311(b) (2) (A) of the Clean Water Act; any element, compound, mixture, solution or substance designated pursuant to Section 102 identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act {but not including any waste listed under Section 307[a] of the Clean Water Act}; any hazardous air pollutant listed under Section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture pursuant to Section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

1.19 Hazardous Waste - Those solid wastes designated by OSHA in accordance with 40 CFR 261 due to the properties of ignitability, corrosivity, reactivity, or toxicity. Any material that is subject to the Hazardous Waste Manifest requirements of the EPA specified in 40 CFR Part 262.

1.20 Holidays - Those designated non-workdays as established by the City Commission of the City of Fort Lauderdale.

1.21 Inspection – The term “inspection” and the act of inspecting as used in this Agreement is defined to mean the examination of construction to ensure that it conforms to the design concept expressed in the plans and specifications. This term shall not be construed to mean supervision, superintending and/or overseeing.

1.22 Notice of Award - The written notice by City to the Contractor stating that upon compliance by the Contractor with the condition’s precedent enumerated therein, within the time specified that the City will sign and deliver this Agreement.

1.23 Notice to Proceed – A written notice to Contractor authorizing the commencement of the activities identified in the notice or as described in the Contract Documents.

1.24 Plans - The official graphic representations of this Project that are a part of the Contract Documents.

1.25 Premises (otherwise known as Site or Work Site) – means the land, buildings, facilities, etc. upon which the Work is to be performed.

1.26 Project – The construction project described in the Contract Documents, including the Work described therein.

1.27 Project Manager - The employee of the City, or other designated individual who is herein referred to as the Project Manager, will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract

SAMPLE CONSTRUCTION AGREEMENT

Documents in connection with completion of the Work in accordance with this Agreement. The Project Manager, or designee, shall be the authorized agent for the City unless otherwise specified.

1.28 Punch List - The City's list of Work yet to be done or be corrected by the Contractor, before the Final Completion date can be determined by the City.

1.29 Record Documents - A complete set of all specifications, drawings, addenda, modifications, shop drawings, submittals and samples annotated to show all changes made during the construction process.

1.30 Record Drawings or "As-Builts" - A set of drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the Contractor. These documents will be signed and sealed by a Professional Engineer, or a Professional Land Surveyor licensed in the State of Florida and employed by the Contractor at no cost to the City.

1.31 Substantially Completed Date – A date when written notice is provided by the City to the Contractor stating that the Work is substantially completed. If, at the time of inspection, it is determined the project is substantially completed, the City will also issue a letter of Substantial Completion along with a punch list of incomplete or deficient items to be completed prior to requesting a Final Completion inspection.

1.32 Work – The construction and services required by the Contract Documents, whether completed or partially completed, and includes all labor, materials, equipment, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute the whole or a part of the Project.

ARTICLE 2 – SCOPE OF WORK

2.1 The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project for which the Work under the Contract Documents may be the whole or only part is generally described as follows:

Victoria Park Stormwater Improvements
ITB 461 PROJECT # P12082

2.2 All Work for the Project shall be constructed in accordance with the approved plans and Specifications. The Work generally involves:

PROJECT DESCRIPTION

This project is located at Victoria Park Neighborhood, in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, stormwater infrastructure removal and installation, water main relocation, cured in place pipe (CIPP) lining, pavement restoration and installation, pump station installation, installation of a new sheet pile seawall with a concrete cap and outfall pipe penetrations, landscaping removal and installation, tree removal and installation, swale restoration and installation, and Maintenance of Traffic (MOT).

SAMPLE CONSTRUCTION AGREEMENT

2.3 Within ten (10) days of the execution of this Agreement, the Contractor shall submit a Construction Schedule, Schedule of Values and a listing of all personnel employed. The general sequence of the Work shall be submitted by the Contractor and approved by the City before any work commences. The City reserves the right to issue construction directives necessary to facilitate the Work or to minimize any conflict with operations.

ARTICLE 3 – PROJECT MANAGER

3.1 The Project Manager is hereby designated by the City as **Deborah Cueva, PE, Project Manager II** whose address is 101 NE 3rd Ave, Suite 1410, fort Lauderdale, FL 33301, telephone number: **(954) 828-5807**, and e-mail address is DCueva@fortlauderdale.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement.

ARTICLE 4 – CONTRACT DOCUMENTS

The Contract Documents, which comprise the entire Agreement between the City and Contractor, are incorporated herein and attached to this Agreement, and consist of the following:

4.1 This Agreement.

4.2 Exhibits to this Agreement: (Plans sheets [ ] to [ ] inclusive).

4.3 Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance.

4.4 Notice of Award and Notice to Proceed.

4.5 General Conditions and Special Conditions.

4.6 Technical Specifications.

4.7 Plans/Drawings.

4.8 Addenda number _____ through _____, inclusive.

4.9 Bid Form and supplement Affidavits and Agreements.

4.10 All applicable provisions of State and Federal Law.

4.11 Invitation to Bid No. _____, Instructions to Bidders, and Bid Bond.

4.12 Contractor's response to the City's Invitation to Bid No. _____, dated _____.

4.13 Schedule of Completion.

4.14 All amendments, modifications and supplements, change orders and work directive

SAMPLE CONSTRUCTION AGREEMENT

changes, issued on or after the Effective Date of the Agreement.

4.15 Any additional documents that are required to be submitted under the Agreement.

4.16 Permits on file with the City and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement.

In the event of any conflict between the documents or any ambiguity or missing specification or instruction, the following priority is established:

a. Approved change orders, addenda or amendments.

b. Specifications and Drawings.

c. Special Conditions.

d. General Conditions.

e. This Agreement dated _____, and any attachments.

f. Invitation to Bid No. _____, and the specifications prepared by the City.

g. Contractor's response to the City's Invitation to Bid No. _____, dated _____.

h. Schedule of Values.

i. Schedule of Completion.

If during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Contract Documents, Contractor shall so report to the Project Manager, in writing, within five (5) calendar days, and before proceeding with the Work affected shall obtain a written interpretation or clarification from the City.

Any Work that may reasonably be inferred from the specifications or plans as being required to produce the intended result shall be supplied whether or not it is specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials, or equipment, such works shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or associations, or to the code of any governmental authority whether such reference be specific or implied, shall mean the latest standard specification, manual or code in effect as of the Effective Date of this Agreement, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of the City, the Contractor, or any of their agents or employees from those set forth in the Contract Documents.

SAMPLE CONSTRUCTION AGREEMENT

ARTICLE 5 – CONTRACT TIME

5.1 The Contractor recognizes that **TIME IS OF THE ESSENCE**. The Work shall commence within **30** calendar days of the date of the Notice to Proceed.

5.2 The Work shall be Substantially Completed within **500** calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within **590** calendar days after the Contract Time commences to run as provided in the Notice to Proceed.

ARTICLE 6 – CONTRACT PRICE

6.1 City shall pay Contractor for performance of the Work in accordance with Article 7, subject to additions and deletions by Change Order, as provided for in this Agreement.

6.2 The Parties expressly agree that the Contract Price, which shall not exceed the amount of $_____, constitutes the total maximum compensation payable to Contractor for performing the Work, plus any Work done pursuant to a Change Order. The Contract Price is in accordance with the line items unit prices listed in the Bid. Line items are based on a unit price cost multiplied by a defined quantity. Any additional duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change to the Contract Price.

6.3 The Contract Price constitutes the compensation payable to Contractor for performing the Work plus any Work done pursuant to a Change Order. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the Contract Price.

ARTICLE 7 – PAYMENT

7.1 Contractor shall submit Applications for Payment in accordance with the Contract Documents. Applications for Payment will be processed by City as provided for in the General Conditions.

7.2 Progress Payments. City shall make progress payments on account of the Contract Price on the basis of Contractor's monthly Applications for Payment, which shall be submitted by the Contractor between the first (1st) and the tenth (10th) day after the end of each calendar month for which payment is requested. All progress payments will be made on the basis of the progress of the Work completed.

7.3 Prior to Final Completion, progress payments will be made in an amount equal to ninety-five percent (95%) of the value of Work completed less in each case the aggregate of payments previously made.

7.4 Final Payment. Upon final completion of the Work in accordance with the General Conditions, as may be supplemented, the City shall pay Contractor an amount sufficient to increase total payments to one hundred percent (100%) of the Contract Price. However, not less than five percent (5%) of the Contract Price shall be retained until

SAMPLE CONSTRUCTION AGREEMENT

Record Drawings (as-builts), specifications, addenda, modifications, and shop drawings, including all manufacturers' instructional and parts manuals are delivered to and accepted by the City.

7.5 City may withhold, in whole or in part, payment to such extent as may be necessary to protect itself from loss on account of:

7.5.1 Defective work not remedied.
7.5.2 Claims filed or reasonable evidence indicating probable filing of claims by other parties against Contractor or City because of Contractor's performance.
7.5.3 Failure of Contractor to make payments properly to subcontractors or for material or labor.
7.5.4 Damage to another contractor not remedied.
7.5.5 Liquidated damages and costs incurred by Consultant for extended construction administration, if applicable.
7.5.6 Failure of Contractor to provide any and all documents required by the Contract Documents.

When the above grounds are removed or resolved satisfactory to the Project Manager, payment shall be made in whole or in part.

7.6 The City shall make payment to the Contractor in accordance with the Florida Prompt Payment Act, Section 218.70, Florida Statutes (2022), as amended or revised, provided, however, complete and error free pay application is submitted.

7.7 The City shall make payment to the Contractor by check.

7.8 Payment Card Industry (PCI) Compliance: **N/A**

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

In order to induce the City to enter into this Agreement, Contractor makes the following representations upon which the City has relied:

8.1 Contractor is qualified in the field of public construction and in particular to perform the Work and services set forth in this Agreement.

8.2 Contractor has visited the Work Site, has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, water table condition, moisture conditions and all year-round local weather and climate conditions (past and present), and examination and investigations conducted by Contractor and the Contractor's experts, has determined that no conditions exist that would in any manner affect the Bid Price and that the project can be completed for the Bid Price submitted within the Contract Time as defined in this Agreement.

Furthermore, Contractor warrants and confirms that it is totally familiar with, understands and obligates Contractor to comply with all federal, state and local laws, ordinances, rules, regulations and all market conditions that affect or may affect the cost and price

SAMPLE CONSTRUCTION AGREEMENT

of materials and labor needed to fulfill all provisions of this Agreement or that in any manner may affect cost, progress or performance of the Work.

8.3 The Contractor has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Project, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, the conformation and conditions at the ground based on City provided reports, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.

8.4 The Contractor has also studied on its own, investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Works, and finds and has further determined that no conditions exist that would in any manner affect the Bid Price and that the Project can be completed for the Bid Price submitted.

8.5 Contractor has made or caused to be made, examinations, investigations, tests and studies of such reports and related data in addition to those referred to in Paragraphs 8.2, 8.3 and 8.4 above as it deems necessary for the performance of the Work at the Contract Prices, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are, or will be, required by Contractor for such purposes.

8.6 Contractor has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

8.7 Contractor has given City written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution by City is acceptable to the Contractor.

8.8 Labor

8.8.1 The Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The Contractor shall at all times maintain good discipline and order at the site.

8.8.2 The Contractor shall, at all times, have a competent superintendent, capable of reading and thoroughly understanding the drawings and specifications, as the Contractor's agent on the Work, who shall, as the Contractor's agent, supervise, direct and otherwise conduct the Work.

8.8.3 The Contractor shall designate the superintendent on the job to the City, in writing, immediately after receipt of the Notice to Proceed. The Contractor understands and agrees that the superintendent's physical presence on the job site is indispensable to the successful completion of the Work. If the superintendent is frequently absent from the job site, the Project Manager may deliver written notice to the Contractor to stop work or terminate the Agreement in accordance with Article 17.

SAMPLE CONSTRUCTION AGREEMENT

8.8.4 Where required and necessary, the Contractor shall, at all times, have a certified "competent person" assigned to the job site. The Contractor shall assign personnel to the job site that have successfully completed training programs related to trench safety, confined space work, and maintenance of traffic (MOT). Personnel certified by the International Municipal Signal Associations with Florida Department of Transportation qualifications are required relative to MOT. Any other certifications that may be required by applicable permitting agencies for the Work shall also be complied with by the Contractor. Failure to pursue the Work with the properly certified supervisory staff may result in notice to stop work or terminate the Agreement in accordance with Article 17.

8.9 Materials:

8.9.1 The Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of Work.

8.9.2 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. Suppliers shall be selected and paid by the Contractor; the City reserves the right to approve all suppliers and materials.

8.10 Work Hours: Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours between 8 a.m. and 5:00 p.m., Monday through Friday.

Unless approved by the City in advance, the Contractor will not perform work on Saturday, Sunday or any legal holiday (designated by the City of Fort Lauderdale) without the Project Manager's written consent at least seventy-two (72) hours in advance of starting such work. For any overtime inspection required by City personnel, the Contractor shall pay for the additional charges to the City with respect to such overtime work. Such additional charges shall be a subsidiary obligation of the Contractor and no extra payment shall be made to the Contractor for overtime work. **It shall be noted that the City's Inspector work hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday, and any work requiring inspection oversight being performed outside of this timeframe shall be paid for by the Contractor as Inspector overtime at a rate of $100.00 per hour.** The cost to the Contractor to reimburse the City for overtime inspection is established at direct-labor and overtime costs for each person or inspector required. Incidental overtime costs for engineering, testing and other related services will also be charged to the Contractor at the actual rate accrued.

8.11 Patent Fee and Royalties: The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work, or any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. The Contractor hereby expressly binds itself to indemnify and hold harmless the City from all such claims and fees and from any and all suits and action of every name and description that may be brought against City on account of any such claims, fees, royalties, or costs for any such invention or patent, and from any and all suits or actions that may be brought against said City for the

SAMPLE CONSTRUCTION AGREEMENT

infringement of any and all patents or patent rights claimed by any person, firm corporation or other entity.

8.12 Permits: The Contractor shall obtain and pay for all permits and licenses. There shall be no allowance for Contractor markup, overhead or profit for permits and licenses.

The Contractor shall pay all government charges which are applicable at the time of opening of bids. It shall be the responsibility of the Contractor to secure and pay for all necessary licenses and permits of a temporary nature necessary for the prosecution of Work.

8.13 Law and Regulations: The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If the Contractor observes that the specifications or plans are in conflict, the Contractor shall give the Project Manager prompt written notice thereof within five (5) calendar days, and any necessary changes shall be adjusted by any appropriate modifications. If the Contractor performs any work knowing or having reason to know that it is contrary to such laws, ordinances, rules, standards, specifications and regulations, and without such notice to the Project Manager, the Contractor shall bear all costs arising therefrom.

8.14 Taxes: The Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the laws of the City of Fort Lauderdale, County of Broward, and the State of Florida.

8.15 Contractor Use of Premises: The Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits and/or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

The Contractor shall not enter upon private property for any purpose without first securing the permission of the property owner in writing and furnishing the Project Manager with a copy of said permission. This requirement will be strictly enforced, particularly with regard to such vacant properties as may be utilized for storage or staging by the Contractor.

The Contractor shall conduct its work in such a manner as to avoid damage to adjacent private or public property. Any damage to existing structures of work of any kind, including permanent reference markers or property corner markers, or the interruption of a utility service, shall be repaired or restored promptly at no expense to the City or property owner.

The Contractor will preserve and protect all existing vegetation such as trees, shrubs and grass on or adjacent to the site which do not reasonably interfere with the construction, as determined by the Project Manager. The Contractor will be responsible for repairing or replacing any trees, shrubs, lawns and landscaping that may be damaged due to careless operation of equipment, stockpiling of materials, tracking of grass by equipment or other construction activity. The Contractor will be liable for or will be required to replace or restore at no expense to the City all properties and areas not protected or preserved as required herein that may be destroyed or damaged.

SAMPLE CONSTRUCTION AGREEMENT

During the progress of the Work, the Contractor shall keep the premises free from accumulation of waste materials, rubbish and debris resulting from the Work. At the completion of the Work, the Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials and shall leave the site clean and ready for occupancy by the City. The Contractor shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents at no cost to the City.

8.16 Project Coordination: The Contractor shall provide for the complete coordination of the construction effort. This shall include, but not necessarily be limited to, coordination of the following:

8.16.1 Flow of material and equipment from suppliers.
8.16.2 The interrelated work with affected utility companies.
8.16.3 The interrelated work with the City where tie-ins to existing facilities are required.
8.16.4 The effort of independent testing agencies.
8.16.5 Notice to affected property owners as may be directed by the Project Manager.
8.16.6 Coordination with and scheduling of all required inspections from all permitting agencies.

8.17 Project Record Documents and Final As-Builts (Record Drawings): Contractor shall be responsible for maintaining up-to-date redline as-built drawings, on site, at all times during construction. All as-built information shall be surveyed and verified by a professional land surveyor registered in the State of Florida. Contractor shall provide the City with a minimum of three (3) sets of signed and sealed record drawings (Final As-Builts) and a CD of the electronic drawings files created in AutoCad 2014 or later. All costs associated with survey work required for construction layout and as-built preparation shall be the responsibility of the Contractor.

8.18 Safety and Protection:

8.18.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

8.18.1.1 All employees working on the project and other persons who may be affected thereby.

8.18.1.2 All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site.

8.18.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

8.18.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect

SAMPLE CONSTRUCTION AGREEMENT

and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and utilities when execution of the Work may affect them at least seventy-two (72) hours in advance (unless otherwise required). All damage, injury or loss to any property caused, directly or indirectly, in whole or in part by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties

and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and accepted by the City.

8.19 Emergencies: In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the City, is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

8.20 Risk of Loss: The risk of loss, injury or destruction shall be on the Contractor until acceptance of the Work by the City. Title to the Work shall pass to the City upon acceptance of the Work by the City.

8.21 Environmental: The Contractor has fully inspected the Premises and agrees, except as to the presence of any asbestos, to accept the Premises in an "as is" physical condition, without representation or warranty by the City of any kind, including, without limitation, any and all existing environmental claims or obligations that may arise from the presence of any "contamination" on, in or about the Premises. Further, Contractor and all entitles claiming by, through or under the Contractor, releases and discharges the City from any claim, demand, or cause of action arising out of or relating to the Contractor's use, handling, storage, release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of any hazardous substances including asbestos on, under, from or about the Premises. The Contractor shall have no liability for any pre-existing claims or "contamination" on the Premises.

The Contractor shall not use, handle, store, discharge, treat, remove, transport, or dispose of Hazardous Substances including asbestos at, in, upon, under, to or from the Premises until receipt of instructions from the City. At such time, a City approved Change Order, which shall not include any profit, shall authorize the Contractor to perform such services.

The Contractor shall immediately deliver to the Project Manager complete copies of all notices, demands, or other communications received by the Contractor from any governmental or quasi-governmental authority or any insurance company or board of fire underwriters or like or similar entities regarding in any way alleged violations or potential violations of any Environmental Law or otherwise asserting the existence or potential existence of any condition or activity on the Premises which is or could be dangerous to life, limb, property, or the environment.

For other and additional consideration, the Contractor hereby agrees, at its sole cost and expense, to indemnify and protect, defend, and hold harmless the City and its respective employees, agents, officials, officers, representatives, contractors and subcontractors, successors, and assigns (hereafter the "City") from and against any and

SAMPLE CONSTRUCTION AGREEMENT

all claims, demands, losses, damages, costs, expenses, including but not limited to mitigation, restoration, and natural restoration expenses, liabilities, assessments, fines, penalties charges, administrative and judicial proceedings and orders, judgments, causes of action, in law or in equity, remedial action requirements and/or enforcement actions of any kind (including, without limitation, attorneys' fees and costs) directly or indirectly arising out of or attributable to, in whole or in part, the Contractor's use, handling, storage, release, threatened release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of a Hazardous Substance (excluding asbestos) on, under, from, to or about the Premises or any other activity carried on or undertaken on or off the Premises by the Contractor or its employees, agents or subcontractors, in connection with the use, handling, storage, release, threatened release, discharge, treatment, mitigation, natural resource restoration, removal, transport, decontamination, cleanup, disposal and/or presence or any Hazardous Substance including asbestos located, transported, or present on, undue, from, to, or about the Premises. This indemnity is intended to be operable under 42 U.S.C. Section 9607, as amended or revised, and any successor section.

The scope of the indemnity obligations includes, but is not limited to: (a) all consequential damages; (b) the cost of any required or necessary repair, cleanup, or detoxification of the applicable real estate and the preparation and implementation of any closure, remedial or other required plan, including without limitation; (i) the costs of removal or remedial action incurred by the United States government or the State of Florida or response costs incurred by any other person, or damages from injury to destruction of, or loss of, natural resources, including the cost of assessing such injury, destruction, or loss, incurred pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, as amended; (ii) the clean-up costs, fines, damages, or penalties incurred pursuant to any applicable provisions of Florida law; and (iii) the cost and expenses of abatement, correction or cleanup, fines, damages, response costs, or penalties which arise from the provisions of any other statute, law, regulation, code ordinance, or legal requirement state or federal; and (c) liability for personal injury or property damage arising under any statutory or common law tort theory, including damages assessed for the maintenance of a public private nuisance, response costs, or for the carrying on of an abnormally dangerous activity.

8.22 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any other reason or allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

8.23 No Liens: If any subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the Work is

SAMPLE CONSTRUCTION AGREEMENT

performed or any part or against any personal property or improvements or claim against any monies due or to become due from the City to Contractor or from Contractor to a subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any Change Order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within twenty (20) days of the filing or from receipt of written notice from the City.

Additionally, until such time as such lien or claim is satisfied, removed or discharged by Contractor, all monies due to Contractor, or that become due to Contractor before the lien or claim is satisfied, removed or otherwise discharged, shall be held by City as security for the satisfaction, removal and discharge of such lien and any expense that may be incurred while obtaining such. If Contractor shall fail to do so, City shall have the right, in addition to all other rights and remedies provided by this Agreement or by law, to satisfy, remove, or discharge such lien or claim by whatever means City chooses at the entire and sole cost and expense of Contractor which costs and expenses shall, without limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments.

8.24 Weather Emergencies: Upon issuance of a hurricane watch by the National Weather Service, the Contractor shall submit to the City a plan to secure the work area in the event a hurricane warning is issued. The plan shall detail how the Contractor will secure the Premises, equipment and materials in a manner as to prevent damage to the Work and prevent materials and equipment from becoming a hazard to persons and property on and around the Premises. The plan shall include a time schedule required to accomplish the hurricane preparations and a list of emergency contacts that will be available, and in the City before, during and immediately after the storm.

Upon issuance of a hurricane warning by the National Weather Service, if the Contractor has not already done so, the Contractor shall implement its hurricane preparedness plan. Cost of development and implementation of the hurricane preparedness plan shall be considered as incidental to construction. Cost of any clean up and rework required after the storm will be considered normal construction risk within Florida and shall not entitle the Contractor to any additional compensation. Contractor shall be entitled to request an extension in time for completion of the Work, in accordance with the provisions of Article 15 of this Agreement, equal to the time it is shut down for implementation of the preparedness plan, the duration of the storm and a reasonable period to restore the Premises.

8.25 Force Majeure: No Party shall hold the other responsible for damages or for delays in performance caused by force majeure, acts of God, or other acts or circumstances beyond the control of the other Party or that could not have been reasonably foreseen and prevented. For this purpose, such acts or circumstances shall include, but not be limited to weather conditions affecting performance, floods, epidemics, pandemics, war, act of Governmental Authority, state of emergency, riots, strikes, lockouts, or other industrial disturbances, or protest demonstrations. Should such acts or circumstances occur, the Parties shall use their best efforts to overcome the difficulties arising therefrom and to resume the Work as soon as reasonably possible with the normal pursuit of the Work.

SAMPLE CONSTRUCTION AGREEMENT

Inclement weather, continuous rain for less than three (3) days or the acts or omissions of subcontractors, third-party contractors, materialmen, suppliers, or their sub-contractors, shall not be considered acts of force majeure.

No Party shall be liable for its failure to carry out its obligations under the Agreement during a period when such Party is rendered unable by force majeure to carry out its obligation, but the obligation of the Party or Parties relying on such force majeure shall be suspended only during the continuance of the inability and for no longer period than the unexpected or uncontrollable event.

The Contractor further agrees and stipulates, that its right to excuse its failure to perform by reason of force majeure shall be conditioned upon giving written notice of its assertion that a Force Majeure delay has commenced within ninety-six (96) hours after such an occurrence. The Contractor shall use its reasonable efforts to minimize such delays. The Contractor shall promptly provide an estimate of the anticipated additional time required to complete the Project.

8.26 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assisted Contracts: The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26 and as approved by DOT, is incorporated by reference in this Agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this Agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 *et seq.*).

Additionally, the Contractor assures that it, the sub-recipient or its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as the recipient deems appropriate. This additional language must be included in each subcontract the prime Contractor signs with a subcontractor.

ARTICLE 9 – CITY'S RESPONSIBILITIES

9.1 The City shall furnish the data required of the City under the Contract Documents promptly and shall make payments to the Contractor promptly after they are due as provided in Article 7.

9.2 The City shall provide public rights-of-way and easement, where available, for the installation of conduits, transformers pads and related appurtenances only.

9.3 Technical Clarifications and Interpretations:

SAMPLE CONSTRUCTION AGREEMENT

9.3.1 The City shall issue, with reasonable promptness, such written clarifications or interpretations of the Contract Documents as it may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. Should the Contractor fail to request interpretation of questionable items in the Contract Documents, the City shall not entertain any excuse for failure to execute the Work in a satisfactory manner.

9.3.2 The City shall interpret and decide matters concerning performance under the requirements of the Contract Documents, and shall make decisions on all claims, disputes or other matters in question. Written notice of each claim, dispute or other matter will be delivered by claimant to the other Party but in no event later than five (5) days after the occurrence of event and written supporting data will be submitted to the other Party within five (5) days after such occurrence. All written decisions of the City on any claim or dispute will be final and binding.

9.4 The Contractor shall perform all Work to the reasonable satisfaction of the City in accordance with the Contract Documents. In cases of disagreement or ambiguity, the City shall decide all questions, difficulties, and disputes of whatever nature, which may arise under or by reason of this Agreement or the quality, amount and value of the Work, and the City's decisions on all claims, questions and determination are final.

9.5 Cancellation for Unappropriated Funds**:** The obligation of the City for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the Agreement into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

ARTICLE 10 – BONDS AND INSURANCE

10.1 Public Construction and Other Bonds: The Contractor shall furnish Public Construction or Performance and Payment Bonds ("Bond"), each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all the Contractor's obligations under the Contract Documents. These Bonds shall remain in effect until at least one (1) year after the date of final payment, except as otherwise provided by law. All Bonds shall be furnished and provided by the surety and shall be in substantially the same form as prescribed by the Contract Documents and be executed by such sureties as (i) are licensed to conduct business in the State of Florida, and (ii) are named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department and (iii) otherwise meet the requirements set forth herein that apply to sureties. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

10.1.1 Performance Bond: The Contractor shall execute and record in the public records of Broward County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, ("Bond"), in accordance with Section 255.05, Florida Statutes (2024), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents.

SAMPLE CONSTRUCTION AGREEMENT

A Corporate Surety Bond legally issued, meeting the approval of, and running to the City in an amount not less than the Contract Price of such improvements, conditioned that the Contractor shall maintain and make all repairs to the improvements constructed by the Contractor at their own expense and free of charge to the City, for the period of one (1) year after the date of acceptance of the Work within such period by reason of any imperfection of the material used or by reason of any defective workmanship, or any improper, imperfect or defective preparation of the base upon which any such improvement shall be laid.

10.2 Disqualification of Surety: If the Surety on any Bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Florida or it ceases to meet the requirements of clauses (i) and (ii) of Paragraph 10.1, the Contractor shall within five (5) days thereafter substitute another Bond and Surety, both of which shall be acceptable to the City.

10.3 Insurance: As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, Contractor shall, at its sole expense, provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of Contractor. Contractor shall provide the City a certificate of insurance evidencing such coverage. Contractor's insurance coverage shall be primary insurance for all applicable policies, in respect to the City's interests for this Agreement. The limits of coverage under each policy maintained by Contractor shall not be interpreted as limiting Contractor's liability and obligations under this Agreement. All insurance policies shall be through insurers authorized or eligible to write policies in the State of Florida and possess an A.M. Best rating of A-, VII or better, subject to approval by the City's Risk Manager.

The coverages, limits, and/or endorsements required herein protect the interests of the City, and these coverages, limits, and/or endorsements shall in no way be relied upon by Contractor for assessing the extent or determining appropriate types and limits of coverage to protect Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this Agreement.

The following insurance policies and coverages are required:

Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

- $5,000,000 each occurrence and $5,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
- $5,000,000 each occurrence and $5,000,000 aggregate for Products and Completed Operations

Policy must include coverage for contractual liability and independent contractors.

The City, a Florida municipality, its officials, employees, and volunteers are to be included as an additional insured with a CG 20 26 04 13 Additional Insured – Designated

SAMPLE CONSTRUCTION AGREEMENT

Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the City, its officials, employees, and volunteers.

Pollution and Remediation Legal Liability (Hazardous Materials)
For the purpose of this section, the term "hazardous materials" includes all materials and substances that are designated or defined as hazardous by Florida or federal law or by the rules or regulations of Florida or any federal agency. If work being performed involves hazardous materials, Contractor shall procure and maintain any or all of the following coverages (which will be specifically addressed upon review of exposure):

Contractors Pollution Liability Coverage
For sudden and gradual occurrences and in an amount not less than $1,000,000 per claim arising out of this Agreement, including but not limited to, all hazardous materials identified under the Agreement.

Business Automobile Liability
Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than $1,000,000 combined single limit each accident.

If Contractor does not own vehicles, Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Crane and Rigging Liability
If the contractor will be utilizing crane and rigging, coverage must be afforded for any crane operations under the Commercial General or Business Automobile Liability policy as necessary, in line with the limits of the associated policy.

Workers' Compensation and Employer's Liability
Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the City must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the City's Risk Manager, if they are in accordance with Florida Statute.

Contractor waives, and Contractor shall ensure that Contractor's insurance carrier waives, all subrogation rights against the City, its officials, employees, and volunteers for all losses or damages. The City requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

Contractor must be in compliance with all applicable State and federal workers' compensation laws.

Insurance Certificate Requirements

i) Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than ten (10) days prior to the start of work contemplated in this Agreement.

SAMPLE CONSTRUCTION AGREEMENT

j) Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.

k) In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.

l) In the event the Agreement term or any surviving obligation of Contractor following expiration or early termination of the Agreement goes beyond the expiration date of the insurance policy, Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.

m) The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.

n) The City shall be included as an Additional Insured on all liability policies, with the exception of Workers' Compensation.

o) The City shall be granted a Waiver of Subrogation on Contractor's Workers' Compensation insurance policy.

p) The title of the Agreement, Bid/Contract number, or other identifying reference must be listed on the Certificate of Insurance.

<u>The Certificate Holder should read as follows:</u>
City of Fort Lauderdale
c/o Procurement Division
401 SE 21st Street
Fort Lauderdale, FL 33316

Contractor has the sole responsibility for all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the application of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for including the City as an Additional Insured shall be at Contractor's expense.

If Contractor's primary insurance policy/policies do not meet the minimum requirements as set forth in this Agreement, Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

Contractor's insurance coverage shall be primary insurance in respect to the City's interests for this Agreement, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the City shall be non-contributory.

Any exclusion or provision in any insurance policy maintained by Contractor that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

SAMPLE CONSTRUCTION AGREEMENT

All required insurance policies must be maintained until the Agreement work has been accepted by the City, or until this Agreement is terminated, whichever is later. Any lapse in coverage may be considered breach of contract. In addition, Contractor must provide to the City confirmation of coverage renewal via an updated certificate of insurance should any policies expire prior to the expiration of this Agreement. The City reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement to Contractor's insurance company or companies and the City's Risk Management office as soon as practical.

It is Contractor's responsibility to ensure that any and all of Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of Contractor. The City reserves the right to adjust insurance limits from time to time at its discretion with notice to Contractor.

NOTE: CITY PROJECT NUMBER, PROJECT NAME AND BID NUMBER MUST APPEAR ON EACH CERTIFICATE, AND THE CITY OF FORT LAUDERDALE MUST BE NAMED ON THE CERTIFICATE AS AN "ADDITIONAL INSURED" ON REQUIRED LIABILITY POLICIES.

ARTICLE 11- WARRANTY AND GUARANTEE, TESTS AND INSPECTIONS, CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

11.1 Warranty: The Contractor warrants and guarantees to the City that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.

11.1.1 Warranty of Title: The Contractor warrants to the City that it possesses good, clear and marketable title to all equipment and materials provided and that there are no pending liens, claims or encumbrances against the equipment and materials.

11.1.2 Warranty of Specifications: The Contractor warrants that all equipment, materials and workmanship furnished, whether furnished by the Contractor, its subcontractors or suppliers, will comply with the specifications, drawings and other descriptions supplied or adopted and that all services will be performed in a workmanlike manner.

11.1.3 Warranty of Merchantability: The Contractor warrants that any and all equipment to be supplied pursuant to this Agreement is merchantable, free from defects, whether patent or latent in material or workmanship, and fit for the ordinary purposes for which it is intended.

11.2 Tests and Inspections: Contractor shall retain the services of an independent, certified, testing lab to perform all testing as required by the specifications, contract drawings, and

SAMPLE CONSTRUCTION AGREEMENT

any applicable permitting agency. Contractor shall provide evidence of certification to the City before the work and testing is done. Testing results shall be submitted to the Project Manager for review and approval at the time the results are provided to the Contractor. The Contractor shall give the Project Manager and City Inspector a minimum of twenty-four (24) hours' advanced notice of readiness of the Work for all required inspections, tests, or approvals and shall notify all applicable permitting agencies in a timely manner based on requirements set forth in the permit documents.

11.2.1 Neither observations by the Project Manager nor inspections, tests or approvals by others shall relieve the Contractor from its obligations to perform the Work in accordance with the Contract Documents.

11.3 Uncovering Work: If any work that is to be inspected, tested or approved is covered without approval or consent of the Project Manager, it must, if requested by the Project Manager, be uncovered for observation and/or testing. Such uncovering and replacement shall be at the Contractor's sole expense unless the Contractor has given the Project Manager timely notice of the Contractor's intention to cover such Work and the Project Manager has not acted with reasonable promptness in response to such notice.

11.3.1 If the Project Manager considers it necessary or advisable that Work covered in accordance with Paragraphs 11.2.1 be observed by the City or inspected or tested by others, the Contractor at the City's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Project Manager may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, the Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such work is not found to be defective, the Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection testing and reconstruction if it makes a claim therefore as provided in Articles 14 and 15.

11.4 City May Stop the Work: If the Work is defective, or the Contractor fails to supply sufficient skilled supervisory personnel or workmen or suitable materials or equipment or the work area is deemed unsafe, the City may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the City to stop the Work shall not give rise to any duty on the part of the City to exercise this right for the benefit of the Contractor or any other Party. The City will not award any increase in Contract Price or Contract Time if the Work is stopped due to the circumstances described herein.

11.5 Correction or Removal of Defective Work Before Final Payment: If required by the Project Manager, the Contractor shall promptly, without cost to the City and as specified by the Project Manager, either correct any defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by the City remove it from the site and replace it with non-defective Work.

11.6 One Year Correction Period After Final Payment: If within one (1) year after the date of final acceptance, or such longer period of time as may be prescribed by law or by the terms

SAMPLE CONSTRUCTION AGREEMENT

of any applicable special guarantee required by the Contract Documents, any work is found to be defective, the Contractor shall promptly, without cost to the City and in accordance with the City's written instructions, either correct such defective Work, or, if it has been rejected by the City, remove it from the site and replace it with non-defective Work.

If the Contractor does not promptly comply with the terms of such instructions or in an emergency where delay would cause serious risk of loss or damage, the City may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs for such removal and replacement, including compensation for additional professional services, shall be paid by the Contractor.

11.7 Acceptance of Defective Work, Deductions: If, instead of requiring correction or removal and replacement of defective Work, the City, at the City's sole option, prefers to accept it, the City may do so. In such a case, if acceptance occurs prior to the Project Manager's recommendation of final payments, a Change Order shall be issued incorporating the necessary revisions in the Contract's Documents, including appropriate reduction in the Contract Price; or if the acceptance occurs after such recommendation, an appropriate amount shall be paid by the Contractor to the City.

11.8 City May Correct Defective Work: If the Contractor fails within a reasonable time after written notice of the Project Manager to proceed to correct defective Work or to remove and replace rejected Work as required by the Project Manager in accordance with Paragraph 11.5, or if the Contractor fails to perform the Work in accordance with the Contract Documents, the City may, after seven (7) days' written notice to the Contractor, correct and remedy any such deficiency. In exercising its rights under this paragraph, the City shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the City may exclude the Contractor from all or part of the site, take possession of all or part of the Work, suspend the Contractor's services related thereto and take possession of the Contractor's tools, construction equipment and materials stored at the site or elsewhere. The Contractor shall allow the City's representative agents and employees such access to the site as may be necessary to enable the City to exercise its rights under this paragraph. All direct and indirect costs of the City in exercising such rights shall be charged against the Contractor in an amount verified by the Project Manager, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the Contractor's defective Work. The Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the City of the City's right hereunder.

ARTICLE 12 – INDEMNIFICATION

12.1 Disclaimer of Liability: The City shall not at any time, be liable for injury or damage occurring to any person or property from any cause, whatsoever, arising out of Contractor's construction and fulfillment of this Agreement.

12.2 Indemnification: For other, additional good valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

SAMPLE CONSTRUCTION AGREEMENT

12.2.1 Contractor shall, at its sole cost and expense, indemnify and hold harmless the City, its representatives, employees and elected and appointed officials from or on account of all claims, damages, losses, liabilities and expenses, direct, indirect or consequential including but not limited to fees and charges of engineers, architects, attorneys, consultants and other professionals and court costs arising out of or in consequence of the performance of this Agreement at all trial and appellate levels. Indemnification shall specifically include but not be limited to claims, damages, losses, liabilities and expenses arising out of or from (a) the negligent or defective design of the project and Work of this Agreement; (b) any act, omission or default of the Contractor, its subcontractors, agents, suppliers, employees or laborers; (c) any and all bodily injuries, sickness, disease or death; (d) injury to or destruction of tangible property, including any resulting loss of use; (e) other such damages, liabilities, or losses received or sustained by any person or persons during or on account of any operations connected with the construction of this Project including the warranty period; (f) the use of any improper materials; (g) any construction defect including both patent and latent defects; (h) failure to timely complete the work; (i) the violation of any federal, state, county or City laws, ordinances or regulations by Contractor, its subcontractors, agents, servants, independent contractors or employees; (j) the breach or alleged breach by Contractor of any term of the Agreement, including the breach or alleged breach of any warranty or guarantee.

12.2.2 Contractor agrees to indemnify, defend, and hold harmless the City, its officers, agents and employees, from all damages, liabilities, losses, claims, fines and fees, and from any and all suits and actions of every name and description that may be brought against City, its officers, agents and employees, on account of any claims, fees, royalties, or costs for any invention or patent and/or for the infringement of any and all copyrights or patent rights claimed by any person, firm, or corporation.

12.2.3 Contractor shall pay all claims, losses, liens, settlements or judgments of any nature in connection with the foregoing indemnifications including, but not limited to, reasonable attorney's fees and costs for trials and appeals.

12.2.4 If any subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the work is performed or any part or against any personal property or improvements thereon or make a claim against any monies due or to become due from the City to Contractor or from Contractor to a subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any change order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within five (5) days of the filing or from receipt of written notice from the City.

Additionally, until such time as such lien or claim is satisfied, removed or discharged by Contractor, all monies due to Contractor, or that become due to Contractor before the lien or claim is satisfied, removed or otherwise discharged, shall be held by City as security for the satisfaction, removal and discharge of such lien and any expense that may be incurred while obtaining the discharge. If

SAMPLE CONSTRUCTION AGREEMENT

Contractor shall fail to do so, City shall have the right, in addition to all other rights and remedies provided by this Agreement or by law, to satisfy, remove, or discharge such lien or claim by whatever means City chooses at the entire and sole cost and expense of Contractor which costs and expenses shall, without limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments, and which shall be deducted from any amount owing to Contractor. In the event the amount due Contractor is less than the amount required to satisfy Contractor's obligation under this, or any other article, paragraph or section of this Agreement, the Contractor shall be liable for the deficiency due the City.

12.2.5 The Contractor and the City agree that Section 725.06(2), Florida Statutes (2024), as may be amended or revised, controls the extent and limits of the indemnification and hold harmless provisions of this Agreement, if any, and that the Parties waive any defects in the wording of this Article that runs afoul of said statutory section.

ARTICLE 13 – CHANGES IN THE WORK

13.1 Without invalidating this Agreement, the City may, at any time or from time-to-time order additions, deletions or revisions in the Work through the issuance of Change Orders. Upon receipt of a fully executed Change Order, the Contractor shall proceed with the Work involved. All Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 14 or Article 15 on the basis of a claim made by either Party.

13.2 The Project Manager may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. Such changes must be in writing and signed by the City and the Contractor.

13.3 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be the Contractor's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. The Contractor shall furnish proof of such adjustment to the City.

ARTICLE 14 – CHANGE OF CONTRACT PRICE

Change of Contract Price, approved by City, shall be computed as follows:

14.1 Cost of the Work: The term "Cost of the Work" means the sum of all direct costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by the City, these costs shall be in amounts no higher than those prevailing in the City and shall include only the following items and shall not include any of the costs itemized in Paragraph 14.3:

SAMPLE CONSTRUCTION AGREEMENT

14.1.1 Payroll costs for employees in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the City and the Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work.

Payroll costs shall include, but not be limited to, salaries and wages plus cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, worker's compensation, health and retirement benefits, bonuses, sick leave, vacation and applicable holiday pay.

14.1.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage, and required suppliers and field services. All cash discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the City, and the Contractor shall make provisions so that they may be obtained.

14.1.3 Supplemental costs including the following:

14.1.3.1 Cost, including transportation and maintenance of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work.

14.1.3.2 Rentals of all construction equipment and machinery and the parts whether rented from the Contractor or others in accordance with rental agreements approved by the City, and the costs of transporting, loading, unloading, installation, dismantling and removal. The rental of any such equipment, machinery or parts shall cease when the use is no longer necessary for the Work.

14.1.3.3 Sales, consumer, use or similar taxes related to the Work and for which the Contractor is liable, imposed by laws and regulations.

14.1.3.4 Royalty payments and fees for permits and licenses.

14.1.3.5 The cost of utilities, fuel and sanitary facilities at the Work site.

14.1.3.6 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

14.1.3.7 Cost of premiums for additional bonds and insurance required because of changes in the Work.

14.2 The Contract Price may only be increased by an approved and fully executed Change Order when Work is modified in accordance with Article 13 and approved by the City in writing. Any claim for an increase in the Contract Price resulting from a Change Order shall be based on written notice delivered to the Project Manager within ten (10) days of the occurrence of the Change Order giving rise to the claim. Notice of the amount of the claim with supporting data shall be included in the Change Order and delivered within twenty (20) days of such occurrence unless Project Manager allows an additional

SAMPLE CONSTRUCTION AGREEMENT

period of time to ascertain accurate cost data. Any change in the Contract Price resulting from any such claim shall be incorporated in the Change Order. **IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT PRICE SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.**

14.3 Not Included in the Cost of the Work: The term "Cost of the Work" shall not include any of the following:

14.3.1 Payroll costs and other compensation of the Contractor's officers' executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditor, accountants, purchasing and contracting agents, expediters, timekeepers, clerks and other personnel employed by the Contractor whether at the site or in the Contractor's principal or branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 14.1.1, all of which are to be considered administrative costs covered by the Contractor's fee.

14.3.2 Expenses of the Contractor's principal and branch offices other than the Contractor's office at the site.

14.3.3 Any part of the Contractor's capital expenses, including interest on the Contractor's capital employed for the Work and charges against the Contractor for delinquent payments.

14.3.4 Cost of premiums for all bonds and for all insurance whether or not the Contractor is required by the Contract Documents to purchase and maintain the same.

14.3.5 Costs due to the negligence of the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

14.3.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 14.1.

14.4 Basis of Compensation: The Contractor's compensation, allowed to the Contractor for overhead and profit, shall be determined as follows:

14.4.1 A mutually acceptable negotiated fee:

14.4.1.1 For costs incurred under Paragraphs 14.1.1 and 14.1.2, the Contractor's fee shall not exceed five percent (5%).

14.4.1.2 No fee shall be payable on the basis of costs itemized under Paragraphs 14.1.3.1, 14.1.3.2, 14.1.3.3, 14.1.3.4, 14.1.3.5, 14.1.3.6, 14.1.3.7, 14.3.1, 14.3.2, 14.3.3, 14.3.4, 14.3.5 and 14.3.6.

SAMPLE CONSTRUCTION AGREEMENT

14.4.1.3 The amount of credit to be allowed by the Contractor to the City for any such change which results in a net decrease plus a deduction in the Contractor's fee by an amount equal to five percent (5%) for the net decrease.

14.4.1.4 When both additions and credits are involved in any one change the combined overhead and profit shall be figured on the basis of net increase if any, however, not to exceed five percent (5%) of the agreed compensation. Profit will not be paid on any Work not performed.

14.5 Cost Breakdown Required: Whenever the cost of any Work is to be determined pursuant to this Article, the Contractor will submit in form acceptable to the City an itemized cost breakdown together with supporting documentation. Whenever a change in the Work is to be based upon mutual acceptance of a lump sum, whether the amount is an addition, credit, or no-charge-in-cost, the Contractor shall submit an estimate substantiated by a complete itemized breakdown:

14.5.1 The breakdown shall list quantities and unit prices for materials, labor, equipment and other items of cost.

14.5.2 Whenever a change involves the Contractor and one (1) or more subcontractors and the change is an increase in the agreed compensation, the overhead and profit percentage for the Contractor and each subcontractor shall be itemized separately.

ARTICLE 15 – CHANGE OF THE CONTRACT TIME

15.1 The Contract Time may only be changed by an approved and fully executed Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to the Project Manager within five (5) days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.

15.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the Contractor if a claim is made therefore as provided in Paragraph 15.1. Such delays shall include but not be limited to, acts or neglect by the City, or to fires, floods, labor disputes, epidemics, abnormal weather conditions, pandemics, act of Governmental Authority, state of emergency, or acts of God.

15.3 All time limits stated in the Contract Documents are of the essence. The provisions of this Article 15 shall not exclude recovery for damages for delay by the Contractor.

15.4 Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor (non-affiliated Contractors) shall not give rise to a claim by the Contractor for damages for increases in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T and Florida East Coast Railway, LLC.

SAMPLE CONSTRUCTION AGREEMENT

15.5 Rights of Various Interests: Whenever work being done by City's forces or by other contractors is contiguous to or within the limits of work covered by this Agreement, the respective rights of the various interests involved shall be established by the Project Manager to secure the completion of the various portions of the Work in general harmony.

ARTICLE 16 – LIQUIDATED DAMAGES

16.1 Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the City the sum of **One Thousand Dollars ($1,000.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay Is caused by the Contractor. Should an act of God or the acts or omissions of the City, its agents or representatives, in derogation to the terms of this Agreement cause the delay, the Contractor shall not be responsible for the delay nor liquidated damages. Liquidated damages are fixed and agreed upon between the Parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the City as a consequence of such delay and both Parties desiring to obviate any question of dispute concerning the amount of damages and the cost and effect of the failure of the Contractor to complete the Work on time. Liquidated damages shall apply separately to each portion of the Work for which a time of completion is given. The City shall have the right to deduct from or retain any compensation which may be due or which may become due and payable to the Contractor the amount of liquidated damages, and if the amount retained by the City is insufficient to pay in full such liquidated damages, the Contractor shall pay all liquidated damages in full. The Contractor shall be responsible for reimbursing the City, in addition to liquidated damages or other damages for delay, for all costs of engineering, architectural fees, and inspection and other costs incurred in administering the construction of the Project beyond the completion date specified or beyond an approved extension of time granted to the Contractor whichever is later. Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor shall not give rise to a claim by Contractor for damages for increase in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the City's contractors and subcontractors, Florida Power and Light Company, AT&T, and Florida East Coast Railway, LLC.

16.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

SAMPLE CONSTRUCTION AGREEMENT

ARTICLE 17 – SUSPENSION OF WORK AND TERMINATION

17.1 City May Suspend Work: The City may, at any time and without cause, suspend the Work or any portion of the Work for a period of not more than ninety (90) days by notice in writing to the Contractor which shall fix the date on which Work shall be resumed. The Contractor shall resume the Work on the date fixed. The Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension, if the Contractor makes a claim as provided in Articles 14 and 15.

17.2 City's Right to Terminate Contract: The City may terminate this Agreement upon fifteen (15) calendar days' written notice upon the occurrence of any one or more of the following events:

17.2.1 If the Contractor makes a general assignment for the benefit of creditors.

17.2.2 If a trustee, receiver, custodian or agent of the Contractor is appointed under applicable law or under Agreement, whose appointment or authority to take charge of property of the Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of the Contractor's creditors.

17.2.3 If Contractor fails to begin the Work within fifteen (15) calendar days after the date set forth in the Notice to Proceed, or fails to perform the Work with sufficient workers and equipment or with sufficient materials to ensure the prompt completion of the Work, or shall perform the Work unsuitably, or cause it to be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work pursuant to the accepted schedule or if Contractor shall fail to perform any material term set forth in the Contract Documents, or from any other cause whatsoever shall not carry on the Work in an acceptable manner, Project Manager may give notice in writing to Contractor and its Surety of such delay, neglect or default, specifying the same.

17.2.4 If the Contractor repeatedly fails to make prompt payments to subcontractors or for labor, material or equipment.

17.2.5 If the Contractor repeatedly disregards proper safety procedures.

17.2.6 If the Contractor disregards any local, state or federal laws or regulations.

17.2.7 If the Contactor otherwise violates any provisions of this Agreement.

17.3 If Contractor, within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, the City may exclude the Contractor from the Work site and take the prosecution of the Work out of the hands of the Contractor, and take possession of the Work and all of the Contractor's tools, appliances, construction equipment and machinery at the site and use them without liability to the City for trespass or conversion, incorporate in the Work all materials and equipment stored at the site or for which the City has paid the Contractor but which are stored elsewhere, and finish the Work as the City may deem expedient. In this instance, the Contractor shall not be entitled to receive any further compensation until the Work is finished.

SAMPLE CONSTRUCTION AGREEMENT

17.3.1 If after notice of termination of Contractor's notice to proceed, it is determined for any reason that Contractor was not in default, the rights and obligations of City and Contractor shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause as set forth below in Section 17.5.

17.3.2 Upon receipt of Notice of Termination pursuant to Sections 17.2 or 17.5, Contractor shall promptly discontinue all affected work unless the Notice of Termination directs otherwise and deliver or otherwise make available to City all data, drawings, specifications, reports, estimates, summaries and such other information as may have been required by the Contract Documents whether completed or in process.

17.4 If the Contractor commits a default due to its insolvency or bankruptcy, the following shall apply:

17.4.1 Should this Agreement be entered into and fully executed by the Parties, funds released and the Contractor (Debtor) files for bankruptcy, the following shall occur:

17.4.1.1 In the event the Contactor files a voluntary petition under 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303, the Contractor shall acknowledge the extent, validity, and priority of the lien recorded in favor of the City. The Contractor further agrees that in the event of this default, the City shall, at its option, be entitled to seek relief from the automatic stay pursuant to 11 U.S.C. 362. The City shall be entitled to relief from the automatic stay pursuant to 11 U.S.C. 362(d) (1) or (d) (2), and the Contactor agrees to waive the notice provisions in effect pursuant to 11 U.S.C. 362 and any applicable Local Rules of the United States Bankruptcy Court. The Contactor acknowledges that such waiver is done knowingly and voluntarily.

17.4.1.2 Alternatively, in the event the City does not seek stay relief, or if stay relief is denied, the City shall be entitled to monthly adequate protection payments within the meaning of 11 U.S.C. 361. The monthly adequate protection payments shall each be in an amount determined in accordance with the Note and Mortgage executed by the Contractor in favor of the City.

17.4.1.3 In the event the Contractor files for bankruptcy under Chapter 13 of Title 11, United States Code in additional to the foregoing provisions, the Contractor agrees to cure any amounts in arrears over a period not to exceed twenty-four (24) months from the date of the confirmation order, and such payments shall be made in addition to the regular monthly payments required by the Note and mortgage. Additionally, the Contractor shall agree that the City is over secured and, therefore, entitled to interest and attorney's fees pursuant to 11 U.S.C. 506(b). Such fees shall be allowed and payable as an administrative expense. Further, in the event the Contractor has less than five (5) years of payments remaining on the Note, the Contractor agrees that the treatment afforded to the claim of the City under any confirmed plan of reorganization shall provide that the remaining payments shall be

SAMPLE CONSTRUCTION AGREEMENT

satisfied in accordance with the Note, and that the remaining payments or claim shall not be extended or amortized over a longer period than the time remaining under the Note.

17.4.2 Should this Agreement be entered into and fully executed by the Parties, and the funds have not been forwarded to Contractor, the following shall occur:

17.4.2.1 In the event the Contractor files a voluntary petition pursuant to 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303., the Contractor acknowledges that the commencement of a bankruptcy proceeding constitutes an event of default under the terms of this Agreement. Further, the Contractor acknowledges that this Agreement constitutes an executory contract within the meaning of 11 U.S.C. 365. The Contractor acknowledges that this Agreement is not capable of being assumed pursuant to 11 U.S.C. 365(c)(2), unless the City expressly consents in writing to the assumption. In the event the City consents to the assumption, the Contractor agrees to file a motion to assume this Agreement within ten (10) days after receipt of written consent from the City, regardless of whether the bankruptcy proceeding is pending under Chapter 7, 11, or 13 of Title 11 of the United States Code. The Contractor further acknowledges that this Agreement is not capable of being assigned pursuant to 11 U.S.C. 365(b)(1).

17.5 Termination for Convenience: This Agreement may be terminated for convenience in writing by City upon thirty (30) days' written notice to Contractor (delivered by certified mail, return receipt requested) of intent to terminate and the date on which such termination becomes effective. In such case, Contractor shall be paid for all work executed and accepted by the City and costs reasonably incurred by Contractor relating to commitments which had become firm prior to the termination. No payment shall be made for profit for work/services which have not been performed or accepted.

17.6 Where the Contractor's service has been so terminated by the City, the termination shall not affect any rights of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due the Contractor by the City will not release the Contractor from liability.

17.7 The Contractor has no right, authority or ability to terminate the Work except for the wrongful withholding of any payments due the Contractor from the City.

ARTICLE 18 – DISPUTE RESOLUTION

18.1 Resolution of Disputes: Questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Agreement as to the character, quality, amount and value of any work done and materials furnished, or proposed to be done or furnished under, or by reason of, the Contract Documents which cannot be resolved by mutual agreement of City Project Manager and Contractor shall be submitted to the City Manager or his designee and Contractor's representative for resolution. Prior to any litigation being commenced, for any disputes which remain unresolved, within sixty (60) days after final completion of the Work, the Parties shall participate in mediation to address all unresolved disputes

SAMPLE CONSTRUCTION AGREEMENT

to a mediator agreed upon by the Parties. Should any objection not be resolved in mediation, the Parties retain all their legal rights and remedies provided under the laws of Florida. Failure by a Party to comply in strict accordance with the requirements of this Article, then said Party specifically waives all of its rights provided hereunder, including its rights and remedies under the laws of Florida.

18.1.1 All non-technical administrative disputes (such as billing and payment) shall be determined by Contract Administrator.

18.1.2 During the pendency of any dispute and after a determination thereof, Contractor and Contract Administrator shall act in good faith to mitigate any potential damages including utilization of construction schedule changes and alternate means of construction. During the pendency of any dispute arising under this Agreement, other than termination herein, Contractor shall carry on the Work and adhere to the progress schedule. The Work shall not be delayed or postponed pending resolution of any disputes or disagreements.

18.1.3 For any disputes which remain unsolved, within sixty (60) calendar days after Final Completion of the Work, the Parties shall participate in mediation to address all unresolved disputes. A mediator shall be mutually agreed upon by the Parties. Should any objection not be resolved in mediation, the Parties retain all their legal rights and remedies under applicable law. If a Party objecting to a determination, fails to comply in strict accordance with the requirements of this Article, said Party specifically waives all of its rights provided hereunder, including its rights and remedies under applicable law.

ARTICLE 19 – NOTICES

19.1 All notices required by any of the Contract Documents shall be in writing and shall be deemed delivered upon mailing by certified mail, return receipt requested to the following:

To the City:

Deborah Cueva
Project Manager
City of Fort Lauderdale
101 NE 3rd Avenue
Fort Lauderdale, Florida 33301-1016
Telephone: (954) 828-5087
E-mail: DCueva@fortlauderdale.gov

with copies to:

City Manager
City of Fort Lauderdale
401 SE 21st Street
Fort Lauderdale, FL 33316

and

City Attorney
City of Fort Lauderdale
1 East Broward Blvd, Suite 1605
Fort Lauderdale, FL 33301-1016

SAMPLE CONSTRUCTION AGREEMENT

To the Contractor:

_____
_____
_____
Telephone: _____
E-mail: _____

ARTICLE 20 – LIMITATION OF LIABILITY

20.1 The City desires to enter into this Agreement only if in so doing the City can place a limit on the City's liability for any cause of action arising out of this Agreement, so that the City's liability for any breach never exceeds the sum of $1,000. For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Contractor expresses its willingness to enter into this Agreement with the knowledge that the Contractor's recovery from the City to any action or claim arising from the Agreement is limited to a maximum amount of $1,000, which amount shall be reduced by the amount actually paid by the City to the Contractor pursuant to this Agreement, for any action or claim arising out of this Agreement. 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 (2024), as may be amended or revised, or to extend the City's liability beyond the limits established in said Section 768.28, Florida Statutes (2024), as may be amended or revised; and no claim or award against the City shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.

20.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the City, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the City and the Contractor.

ARTICLE 21 – GOVERNING LAW; WAIVER OF JURY TRIAL

21.1 The Agreement shall be interpreted and construed in accordance with, and governed by, the laws of the state of Florida. The Parties agree that the exclusive venue for any lawsuit arising from, related to, or in connection with this Agreement shall be in the state courts of the Seventeenth Judicial Circuit in and for Broward County, Florida. If any claims arising from, related to, or in connection with this Agreement must be litigated in federal court, the Parties agree that the exclusive venue for any such lawsuit shall be in the United States District Court or United States Bankruptcy Court for the Southern

SAMPLE CONSTRUCTION AGREEMENT

District of Florida. **BY ENTERING INTO THIS AGREEMENT, THE PARTIES HEREBY EXPRESSLY WAIVE ANY AND ALL RIGHTS EITHER PARTY MIGHT HAVE TO A TRIAL BY JURY OF ANY ISSUES RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

ARTICLE 22 – MISCELLANEOUS

22.1 The duties and obligations imposed by this Agreement and the rights and remedies available to the Parties and, in particular but without limitation, the warranties, guaranties and obligations imposed upon the Contractor and all of the rights and remedies available to the City, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents, and the provisions of this Paragraph will survive final payment and termination or completion of this Agreement.

22.2 The Contractor shall not assign or transfer this Agreement or its rights, title or interests. The obligations undertaken by the Contractor pursuant to this Agreement shall not be delegated or assigned to any other person or firm. Violation of the terms of this Paragraph shall constitute a material breach of Agreement by the Contractor and the City any, at its discretion, cancel this Agreement and all rights, title and interest of the Contractor which shall immediately cease and terminate.

22.3 The Contractor and its employees, volunteers and agents shall be and remain as independent contractor and not agents or employees of the City with respect to all of the acts and services performed by and under the terms of this Agreement. This Agreement shall not in any way be constructed to create a partnership, association or any other kind of joint undertaking or venture between the Parties.

22.4 The City reserves the right to audit the records of the Contractor relating in any way to the Work to be performed pursuant to this Agreement at any time during the performance and term of this Agreement and for a period of three (3) years after completion and acceptance by the City. If required by the City, the Contractor agrees to submit to an audit by an independent certified public accountant selected by the City. The Contractor shall allow the City to inspect, examine and review the records of the Contractor at any and all times during normal business hours during the term of this Agreement.

22.5 The remedies expressly provided in this Agreement to the City shall not be deemed to be exclusive but shall be cumulative and in addition to all other remedies in favor of the City now or later existing at law or in equity.

SAMPLE CONSTRUCTION AGREEMENT

22.6 Should any part, term or provisions of this Agreement be decided by the courts to be invalid, illegal or in conflict with any state or federal law, the validity of the remaining portion or provision shall not be affected.

22.7 Prohibition Against Contracting With Scrutinized Companies: Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and that it does not have business operations in Cuba or Syria, as provided in Section 287.135, Florida Statutes (2024), as may be amended or revised. The Contractor certifies that it is not on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2024), as may be amended or revised, and that it is not engaged in a boycott of Israel. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of Section 287.135, Florida Statutes (2024), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2024), as may be amended or revised, or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2024), as may be amended or revised.

By submitting a bid or response, the company, principals, or owners certify that it is not listed on the Scrutinized Companies with Activities in Sudan List or listed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria.

22.8 Public Entity Crimes: In accordance with the Public Crimes Act, Section 287.133, Florida Statutes (2024), as may be amended or revised, a person or affiliate who is a contractor, consultant or other provider, who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to the City, may not submit a bid on a contract with the City for the construction or repair of a public building or public work, may not submit bids on leases of real property to the City, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with the City, and may not transact any business with the City in excess of the threshold amount provided in Section 287.017, Florida Statutes (2024), as may be amended or revised, for category two purchases for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. Violation of this section by Contractor shall result in cancellation of the City purchase and may result in Contractor debarment.

22.9 Attorney Fees: If City or Contractor incurs any expense in enforcing the terms of this Agreement through litigation, the prevailing Party in that litigation shall be reimbursed for all such costs and expenses, including but not limited to court costs, and reasonable attorney fees incurred during litigation.

SAMPLE CONSTRUCTION AGREEMENT

22.10 Public Records

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES (2024), TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT PRRCONTRACT@FORTLAUDERDALE.GOV, 954-828-5002, CITY CLERK'S OFFICE, 1 EAST BROWARD BOULEVARD, SUITE 444 FORT LAUDERDALE, FLORIDA 33301.

Contractor shall:

1. Keep and maintain public records required by the City in order to perform the service.

2. Upon request from the City's custodian of public records, provide the City with a copy 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 in Chapter 119, Florida Statutes (2024), as may be amended or revised, or as otherwise provided by law.

3. 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 contract term and following completion of this Agreement if the Contractor does not transfer the records to the City.

4. Upon completion of the Agreement, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

22.11 Non-Discrimination

The Contractor shall not discriminate against its employees based on the employee's race, color, religion, gender, gender identity, gender expression, marital status, sexual orientation, national origin, age, disability, or any other protected classification as defined by applicable law.

1. The Contractor certifies and represents that the Contractor offers the same health benefits to the domestic partners of its employees as are offered its employees' spouses or offers its employees the cash equivalent of such health benefits because it is unable to provide health benefits to its employees' domestic partners, and that the Contractor will comply with Section 2-187, Code of Ordinances of the City of Fort Lauderdale, Florida, as may be amended or revised, ("Section 2-187"), during the entire term of this Agreement.

SAMPLE CONSTRUCTION AGREEMENT

2. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of this Agreement, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

3. The City may terminate this Agreement if the Contractor fails to comply with Section 2-187.

4. The City may retain all monies due or to become due until the Contractor complies with Section 2-187.

5. The Contractor may be subject to debarment or suspension proceedings. Such proceedings will be consistent with the procedures in Section 2-183 of the Code of Ordinances of the City of Fort Lauderdale, Florida.

22.12 E-Verify

As a condition precedent to the effectiveness of this Agreement, pursuant to Section 448.095, Florida Statutes (2024), as may be amended or revised, the Contractor and its subcontractors shall register with and use the E-Verify system to electronically verify the employment eligibility of newly hired employees.

1. The Contractor shall require each of its subcontractors, if any, to provide the Contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. The Contractor shall maintain a copy of the subcontractor's affidavit for the duration of this Agreement and in accordance with the public records requirements of this Agreement.

2. The City, the Contractor, or any subcontractor who has a good faith belief that a person or entity with which it is contracting has knowingly violated Subsection 448.09(1), Florida Statutes (2024), as may be amended or revised, shall terminate the contract with the person or entity.

3. The City, upon good faith belief that a subcontractor knowingly violated the provisions of Subsection 448.095(5), Florida Statutes (2024), as may be amended or revised, but that the Contractor otherwise complied with Subsection 448.095(5), Florida Statutes (2024), as may be amended or revised, shall promptly notify Contractor and order the Contractor to immediately terminate the contract with the subcontractor, and the Contractor shall comply with such order.

4. A contract terminated under Subparagraph 448.095(5)(c)1. or 2., Florida Statutes (2024), as may be amended or revised, is not a breach of contract and may not be considered as such. If the City terminates this contract under Paragraph 448.095(5)(c), Florida Statutes (2024), as may be amended or revised, the Contractor may not be awarded a public contract for at least one year after the date on which the contract was terminated. The Contractor is liable for any additional costs incurred by the City as a result of termination of this Agreement.

5. Contractor shall include in each of its subcontracts, if any, the requirements set forth in this Section, including this subparagraph, requiring any and all subcontractors, as defined in Subsection 448.095(1)(e), Florida Statutes (2024), as may be amended or revised, to include all of the requirements of this Section in their subcontracts.

SAMPLE CONSTRUCTION AGREEMENT

Contractor shall be responsible for compliance by any and all subcontractors, as defined in Subsection 448.095(1)(e), Florida Statutes (2024), as may be amended or revised, with the requirements of Section 448.095, Florida Statutes (2024), as may be amended or revised.

[THIS SPACE WAS INTENTIONALLY LEFT BLANK]

SAMPLE CONSTRUCTION AGREEMENT

CITY

IN WITNESS OF THE FOREGOING, the Parties have set their hands and seals the day and year first written above.

CITY OF FORT LAUDERDALE, a Florida municipal corporation

By: _____
RICKELLE WILLIAMS
City Manager

Date: _____

ATTEST:

By: _____
DAVID R. SOLOMAN
City Clerk

Approved as to Legal Form and correctness:
D'Wayne M. Spence, Acting City Attorney

By:_____
_____
Assistant City Attorney

CONTRACTOR

WITNESSES:

CONTRACTOR.,
a Florida company/corporation.

_____ By:_____

_____ Print Name:_____
Print Name

Title:_____

ATTEST:

_____

_____
Print Name

By:_____
Secretary

(CORPORATE SEAL)

STATE OF _____:

COUNTY OF _____:

The foregoing instrument was acknowledged before me by means of ❑ physical presence or ❑ online notarization, this _____ day of _____, 2025, by _____, (NAME OF AUTHORIZED OFFICER) as _____ (TITLE OF AUTHORIZED OFFICER), for _____ (NAME OF COMPANY), a Florida _____(TYPE OF COMPANY).

_____
(Signature of Notary Public - State of Florida)

_____
(Print, Type, or Stamp Commissioned Name of Notary Public)

Personally Known_____ OR Produced Identification_____
Type of Identification Produced: _____

SAMPLE CONSTRUCTION AGREEMENT

CITY OF FORT LAUDERDALE
CONTRACT AND SPECIFICATIONS PACKAGE

PROJECT NO. 12082

STORMWATER MASTER PLAN MODELING AND DESIGN IMPLEMENTATION

VICTORIA PARK STORMWATER IMPROVEMENTS

ISSUED FOR BID

Issued on Behalf of:
The Public Works Department
Engineering Division
101 NE 3rd Ave Suite 2100
Fort Lauderdale, FL 33301

Deborah Cueva, PE, MPA
Project Manager II

Paulette Hemmings Turner, MBA, CPP
SENIOR PROCUREMENT SPECIALIST
Telephone: (954) 828-5139 E-mail: pturner@fortlauderdale.gov

TABLE OF CONTENTS

I. BID INFORMATION

Invitation to Bid ..... ITB-1 thru ITB-2
Instruction to Bidders .....IB-1 thru IB-
Special Conditions ..... SC-1 thru SC-6

II. CONSTRUCTION AGREEMENT (SAMPLE)..... C-1 thru C-39

III. SPECIFICATIONS

IV. EXHIBIT 1 - WIFIA PROGRAM BORROWER GUIDE TO FEDERAL REQUIREMENTS

DIVISION 1 – GENERAL REQUIREMENTS

01001 General Requirements……
01005 Intent of Drawings and Specifications .....
01010 Summary of Work .....
01025 Measurement and Payment .....
01070 Abbreviations .....
01090 Reference Standards .....
01200 Project Meetings .....
01300 Submittals .....
01312 Field Engineering .....
01320 Project Record Documents .....
01400 Quality Control .....
01430 Operations and Maintenance Data……
01510 Temporary Utilities .....
01520 Construction Constraints .....
01525 Maintenance of Traffic .....
01530 Protection of Existing Facilities .....
01550 Site Access and Storage .....
01560 Temporary Environmental Controls .....
01580 Project Identification and Signs .....
01590 Field Office, Equipment, and Services .....
01600 Materials and Equipment .....
01660 Equipment Testing and Startup .....
01700 Project Closeout……..

DIVISION 2 - SITE CONSTRUCTION

02015 Mobilization and Demobilization .....
02100 Erosion and Sediment Control – Stormwater Pollution Prevention .....
02200 Site Preparation .....
02220 Demolition .....
02222 Excavation and Backfill for Utilities .....
02224 Excavation and Backfill for Structures .....
02225 Contaminated Soils and Groundwater .....
02240 Dewatering .....
02300 Earthwork .....
02314 Vibration and Noise Monitoring……..
02369 Steel Sheet Piling……

02371 Geotextiles.....
02481 Tree Relocation and Protection.....
02535 Structures .....
02575 Surface Restoration .....
02630 Storm Drain Facilities.....
02631 Exfiltration Trench Drains.....
02632 Corrugated Polypropylene Drainage Pipe.....
02665 Cured-in-Place Pipe Lining.....
02710 Limerock Base.....
02723 Stormwater Pipe Cleaning and Internal TV Inspection.....
02761 Pavement Marking.....
02771 Concrete Curb and Sidewalk .....
02772 Asphalt Pavement.....
02820 Fence System.....
02900 Landscaping .....
02911 Soil Preparation .....
02920 Sodding .....

DIVISION 3 – CONCRETE

03100 Concrete Formwork .....
03200 Concrete Reinforcement.....
03290 Joints in Concrete.....
03300 Cast-in-Place Concrete.....
03315 Grout.....
03350 Concrete Finishes.....
03370 Concrete Curing.....
03400 Precast Concrete – General .....
03480 Precast Concrete Manholes, Handholes, and Vaults .....

DIVISION 5 – METALS

05010 Metal Materials .....
05035 Galvanizing.....
05050 Metal Fastening.....
05120 Structural Steel.....
05140 Structural Aluminum.....
05500 Metal Fabrication.....
05510 Metal Stairs.....
05515 Ladders.....
05520 Handrails and Railings.....
05531 Grating, Floor Plates, and Access Hatches.....
05540 Castings.....

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

07160 Bituminous Dampproofing.....
07920 Sealants and Caulking.....

DIVISION 9 – FINISHES

09900 Painting .....

DIVISION 11 – EQUIPMENT AND GENERAL PROVISIONS

11000 Equipment General Provisions.....
11100 Pumps – General……
11105 Submersible Axial Flow Pumps……..

DIVISION 15 – MECHANICAL

15000 Basic Mechanical Requirements……
15006 Ductile Iron Pipe……..
15008 PVC Non-Pressure Pipe……
15009 PVC Pressure Pipe……..
15020 Pipe Supports……...
15030 Piping and Equipment Identification Systems……..
15095 Valves – General……..
15100 Valve Operators……...
15104 Ball Valves……
15108 Gate Valves……..
15114 Miscellaneous Valves and Appurtenances……..
15177 Inline Check Valves……
15202 Flap Gates……
15995 Pipeline Testing and Disinfection……...

DIVISION 16 – ELECTRICAL

16000 Basic Electrical Requirements .....
16055 Power System Studies……
16111 Conduit……
16118 Underground Electrical……..
16123 Low Voltage Wire and Cable……
16130 Boxes……
16170 Grounding and Bonding……..
16190 Supporting Devices……
16195 Electrical Identification……
16280 Surge Protective Devices……
16440 Disconnect Switches……...
16461 Dry Type Distribution Transformers……..
16480 Low-Voltage Electric Motors……...
16500 Lighting……..

DIVISION 17 – CONTROL AND INFORMATION SYSTEMS

17000 Control and Information System Scope and General Requirements .....
17030 Control and Information System Submittals……
17040 Control and Information System Training Requirements……..
17050 Tools, Supplies, and Spare Parts – General……
17060 Signal Coordination Requirements……
17070 Control and Information System Testing – General……
17072 Field Testing……
17073 Final Acceptance Test……..
17080 Quality Assurance……
17100 Control and Information System Hardware – General……..
17120 Programmable Logic Controllers……..
17125 Operator Interface Units……

17135 Cellular Communications System…….
17185 Networks……..…
17303 Air Bubbler Level Systems…….
17500 Enclosures – General……..
17510 Cabinets and Panels……
17550 Panel Instruments and Accessories…….
17560 Surge Protection Devices……..
17600 Unpowered Instruments – General……..
17670 Level Switches (Suspended Float Type)…….
17698 Instrumentation and Control System Accessories……
17700 Powered Instruments – General……..
17910 Instrument Schedule……..
17920 Control System Input Output Schedule……..
17950 Functional Control Descriptions…….

APPENDIX

Appendix A – Geotechnical Services Report by RADISE International, February 2018
Appendix B – Benthic Survey by The Chappel Group, Inc., August 2024
Appendix C – Topographic Survey by Craven Thompson & Associates, Inc., August 2024
Appendix D – SUE Test Hole Report by InfraMap, October 2024

SECTION 01001 GENERAL REQUIREMENTS

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. A brief description of the Work is stated in the Notice to Contractors. To determine the full scope of the Project or any particular part of the Project, coordinate the applicable information in these Contract Documents.

B. The work under this Contract shall be performed by the Contractor as required by the City. Work will be authorized in the form of a Notice to Proceed issued to the Contractor. The Contractor shall complete all work in the Contract within the number of calendar days stipulated in the Contract unless an extension in the time of completion is granted by the Engineer, as stated in the Instructions to Bidders. Upon completion of the work and compliance with applicable provisions in the Contract Documents, the Contractor will receive final payment for all work done.

C. The following additional information, though not all-inclusive, is given to assist contractors in their evaluation of the work required to meet the project objectives.

D. The Contractor shall become familiar with the existing operating conditions of the City's stormwater system and pumping stations and take such into consideration in planning and scheduling work. No extra claims shall be made for work required to achieve conditions beyond those obtainable under normal operation of the existing transmission, collection and pumping facilities necessary to accomplish the work.

1.02 AMERICAN IRON AND STEEL (AIS) REQUIREMENT

A. All iron and steel products incorporated into the project must comply with American Iron and Steel (AIS) requirements as mandated by Section 436 of the Consolidated Appropriations Act of 2014 (P.L. 113-76) and subsequent federal legislation.

B. All iron and steel materials used in the project, including but not limited to pipes, fittings, manhole covers and castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete and construction materials shall be produced in the United States. Compliance requires that all manufacturing processes, including melting, refining, forming, rolling, and fabricating, occur within the United States.

C. The Contractor shall provide manufacturer certifications verifying AIS compliance for all applicable materials prior to installation. Documentation shall be submitted to the Engineer for review and approval before installation.

D. The Contractor is responsible for maintaining records to demonstrate compliance with AIS and shall make these records available upon request. An AIS Compliance Tracking Log template is provided under Section 01300 – Submittals.

E. Use of non-compliant materials is strictly prohibited unless a waiver has been obtained from the funding agency. If the Contractor believes a waiver is necessary due to non-availability, public interest, or unreasonable cost, a written request shall be submitted to the Engineer with supporting documentation. Non-compliant materials shall not be installed until the waiver process is completed and approved.

1.03 DOT SPECIFICATIONS

A. Portions of The Florida Department of Transportation Standard Specifications for Road and Bridge Construction and their Roadway and Traffic Design Standards, hereinafter referred to as the DOT Standard Specifications, are referred to herein and amended, in part, and the same are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein. Such reference shall mean the current edition, including all supplements. In case of a conflict in the requirements of the DOT Specifications and the requirements stated herein, the requirements herein shall prevail.

B. Contractor will be required to submit MOTs for work in the county and state highways and City streets. Contractor shall coordinate with MOTs for nearby or highway work and obtain approval for all traffic control as required from agencies having jurisdiction, including but not limited to City of Fort Lauderdale Transportation and Mobility (TAM).

PART 2 - SEQUENCE OF OPERATIONS

2.01 SCHEDULING

A. General: Prepare and submit schedule in accordance with the provisions of Section 01300 - Submittals.

B. Plan the Work and carry it out with minimum interference to the operation of the existing facilities. Prior to starting the work, confer with the Engineer and City's representative to develop an approved work schedule. which will permit the work areas to function normally as practical. It may be necessary to do certain parts of the construction work outside normal working hours in order to avoid undesirable conditions. The Contractor shall do this work at such times, and at no additional cost to the City. Do not make connections between existing work and new work until necessary inspection and tests have been completed on the new work and it is found to conform in all respects to the requirements of the Contract Documents.

C. No work shall be started until the Contractor has received approved shop drawings, established material/delivery dates for all equipment, and received approval of the construction schedule from the Engineer or City. The Contractor shall have sufficient manpower, equipment, and material to complete the project.

D. No work shall commence without express consent of the Engineer or City.

E. If a privately owned staging area is required, no work shall commence until approval of the facility is obtained from City Planning and Zoning. Submit a copy of the approval and agreement to the City.

2.02 MOBILIZATION AND DEMOBILIZATION

A. Contractor shall be responsible for mobilization and demobilization of labor, materials and equipment. Payment for mobilization and demobilization shall be included in the lump sum price indicated in the Proposal for the Project.

2.03 COORDINATION

A. Contractor shall cooperate in the coordination of separate activities in a manner that will

provide the least interference with the City's operations and other contractors and utility companies working in the area, and in the interfacing and connection of the separate elements of the overall project work.

B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the Engineer or City.

2.04 MAINTENANCE AND SHUTDOWN OF EXISTING OPERATIONS OR UTILITIES

A. Continuous operation of the City's service functions is of critical importance. The Contractor's work shall not result in the interruption of sewage, water, or solid waste service to any customers.

B. In performing the work shown and specified, the Contractor shall plan and schedule his work to meet the daily and seasonal operating requirements of the City’s facilities.

C. The Contractor shall be fully responsible for all precautionary measures together with all remediation, cleanup, disinfection, regulatory agency fines and all other labor, materials, and costs associated with any contamination of the potable water supply caused directly or indirectly by the activities of the Contractor in the performance of the work.

D. Notwithstanding other indemnification requirements of the Contract Documents, the Contractor shall also indemnify, defend, and hold harmless the City, the Engineer and the City’s agents from any and all legal action which may arise from contamination of the potable water supply caused directly or indirectly by the Contractor in the performance of the work.

E. Minimizing conflicts with the ongoing area-wide commercial activities is of critical importance. The Contractor's work shall minimize in the interruption of operations at any facility or business.

F. Connections to existing services or utilities, or other work that requires the temporary shutdown of any existing operations or utilities shall be planned in detail with appropriate scheduling of the work and coordinated with the City or Engineer in writing. The Contractor shall schedule short-term and extended shutdowns in advance and shall present all desired shutdowns in the 30 and 60-day schedules at the construction progress meetings.

G. Seven (7) business days advanced notice shall be given in order that the City or Engineer may witness the shutdown, tie-in, and startup. The temporary shutdown must be approved by the City and coordinated with the Water Facilities Manager and the Distribution System Manager. All tie-in and bypass operations shall be the responsibility of the Contractor and are considered incidental to the cost of construction and provided at no additional cost to the City.

H. If in the judgment of the City or Engineer, a requested shutdown is not required for the Contractor to perform the Work, the Contractor shall utilize approved alternative methods to accomplish the Work.

I. Where required in the Construction Sequence, the Contractor shall proceed with the Work continuously, (24 hours/day, 7 days/week) start to finish, until the Work is completed and normal plant operation is restored.

J. All materials and equipment (including emergency equipment) necessary to expedite the tie-in shall be on hand prior to the shutdown of existing services or utilities.

K. If the Contractor completes all required Work before the specified shutdown period has ended, the City may immediately place the existing system back into service.

L. Short term shutdowns of the existing pipelines will be allowed for tie-ins to existing facilities, installation of temporary bulkheads, etc. All such shutdowns shall be scheduled for low flow period during the daily diurnal water demand (as determined by the Water Facilities Manager) and shall generally be limited to four (4) hours or less depending on water demand, system pressure, weather forecast and amount of potable water stored onsite. The schedule and duration of short-term shutdowns shall be at the discretion of the City.

M. The City shall have the authority to order Work postponed, stopped or prohibited that would, in his opinion, unreasonably result in interrupting the necessary functions of the existing raw water pipelines or treatment plant operation.

N. If the Contractor impairs performance or operation of the existing pipelines as a result of not complying with specified provisions for maintaining pipeline, then the Contractor shall immediately make all repairs or replacements and do all work necessary to restore the existing pipelines to operation to the satisfaction of the City and the Engineer. Such work shall progress continuously to completion on a 24-hours per day, seven workdays per week basis.

2.05 OPERATION OF EXISTING SYSTEM PROHIBITED

A. At no time undertake to close off any utility lines or open valves or take any other action which would affect the operation of existing systems. The City's forces will operate all valves. Provide at least one business day notice to City prior to any operations.

PART 3 - SITE CONDITIONS

3.01 SITE INVESTIGATION AND REPRESENTATION

A. The Contractor acknowledges satisfaction as to the general nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, availability of labor, water, electric power, roads, and uncertainties of weather, river stages, or similar physical conditions, the character of equipment and facilities needed preliminary to and during the prosecution of the work, and all other matters which can in any way affect the work or the cost thereof under this Contract.

B. The Contractor shall be responsible for all restoration of disturbed areas encountered as pre-existing site conditions whether or not specifically shown or denoted on the Contract Documents. It is the Contractor's responsibility to fully familiarize itself with the project site and restoration requirements of the Measurement and Payment Section and to adequately reflect compensation for these items in its initial base bid. Failure by the Contractor to become acquainted with the physical conditions and all the available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of successfully performing the work.

C. The Contractor warrants that as a result of examination and investigation of all the aforesaid data, the Contractor can perform the work in a good and workmanlike manner and to the satisfaction of the City. The City assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this Contract, unless (1) such representations are expressly stated in the Contract, and (2) the Contract expressly provides

that the responsibility therefore is assumed by the City.

3.02 INFORMATION ON SITE CONDITIONS

A. General: Information obtained by the City or Engineer regarding site conditions, subsurface information, groundwater elevations, existing construction of site facilities as applicable, and similar data will be available for inspection at the office of the City upon request. Such information is offered as supplementary information only. Neither the Engineer nor the City assumes any responsibility for the completeness or interpretation of such supplementary information.

B. Where appropriate, subsurface boring logs are provided for supplemental informational purposes only. Contractor shall interpret this data at his own RISK.

3.03 UTILITIES

A. The Contractor shall be responsible for determining and/or confirming, at his cost, the locations of all utilities within the project area, and shall be responsible for contacting each utility for location and notification prior to commencing work.

B. The Contractor shall contact potentially affected utilities as provided in Section 01040.

C. The Contractor shall contact Sunshine State One Call at 1-800-432-4770 at two (2) full business days prior to any excavation and make arrangements for locating all utilities in the project area.

3.04 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

A. Where the Contractor's operations could cause damage or inconvenience to utilities, telephone, television, power, water, or sewer systems, the operations shall be suspended until all arrangements necessary for the protection of these utilities and services have been made by the Contractor with the owner of the utility affected.

B. Notify all utility offices which are affected by the construction operation at least seven (7) working days in advance. Under no circumstances expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, locate, expose, and provide temporary support for all existing underground utilities.

C. The Contractor shall be solely and directly responsible to the City and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.

D. Neither the City nor its officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.

E. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is granted.

F. In the event the Contractor encounters water service lines or sewer laterals that interfere with trenching, he may, by obtaining prior approval of the property owner, the Engineer and the City, cut the service, dig through, and restore the service with similar and equal materials at the Contractor's expense.

G. The Contractor shall replace, at his own expense, all existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract documents or ordered by the Engineer.

3.05 INTERFERING STRUCTURES

A. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground.

B. Protect underground and aboveground existing structures from damage, whether or not they lie within the limits of the easements obtained by the City. Where such existing fences, gates, sheds, buildings, or any other structure must be removed in order to properly carry out the construction, or are damaged during construction, restore to their original condition to the satisfaction of the property owner involved at the Contractor's own expense. Notify the Engineer of any damaged underground structure, and make repairs or replacements before backfilling.

C. Without additional compensation, the Contractor may remove and shall replace in a condition as good as or better than original, such small miscellaneous structures as fences, mailboxes, and signposts that interfere with the Contractor's operations.

3.06 EASEMENTS

A. Where portions of the work are located on public or private property, easements and permits will be obtained by the City, except as otherwise noted in these Specifications. Easements will provide for the use of property for construction purposes to the extent indicated on the easements. Copies of these easements and permits are available upon request to the City. It shall be the Contractor's responsibility to determine the adequacy of the easement obtained in every case and to abide by all requirements and provisions of the easement. The Contractor shall confine his construction operations to within the easement limits or street right-of-way limits or make special arrangements with the property owners or appropriate public agency for the additional area required. Any damage to property, either inside or outside the limits of the easements provided by the City or street rights-of-way, shall be the responsibility of the Contractor as specified herein. The Contractor shall provide immediate notice to the City of any damage to fencing and provide temporary fencing as required to provide a functionally similar level of security. The Contractor shall remove, protect, and replace all fences or other items encountered on public or private property. Before final payment will be authorized by the Engineer, the Contractor will be required to furnish the City with written releases from property owners or public agencies where side agreements or special easements have been made by the Contractor or where the Contractor's operations, for any reason, have not been kept within the construction right-of-way obtained by the City or the street right-of-way.

B. It is anticipated that the required easements and permits will be obtained before construction is started. However, should the procurement of any easement or permit be delayed, the Contractor shall schedule and perform the work around these areas until such a time as the easement or permit has been secured.

C. Prior to removing an existing structure or item, provide written notice to the City at least fourteen (14) days in advance of the anticipated removal.

PART 4 - SAFETY AND CONVENIENCE

4.01 SAFETY AND ACCESS

A. The Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities or unramped grade changes in pedestrian sidewalk or walkway, and trenches or excavations in roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work. All barricades and signs shall be clean and serviceable, in the opinion of the Engineer.

B. During construction, the Contractor shall construct and at all times maintain satisfactory and substantial temporary chain link fencing, solid fencing, railing, barricades or steel plates, as applicable, at all openings, obstructions, or other hazards in streets, sidewalks, floors, roofs, and walkways. All such barriers shall have adequate warning lights as necessary, or required, for safety. All lights shall be regularly maintained, and in a fully operational state at all times.

C. The Contractor shall notify all residences and businesses of planned construction at least seven (7) days prior to the start of work in the block where they are located. Such notices shall be brochures or door-hangers with sufficient information to describe the extent and duration of the planned work. Notification activities shall be coordinated with the City.

D. Homeowners and business owners shall be provided reasonable access. The Contractor shall provide temporary sidewalks, bridges or driveway access, including safe passage over open excavations as required.

4.02 ACCIDENT REPORTS

A. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses. If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the Engineer.

B. If a claim is made by anyone against the contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.

4.03 SAFE ACCESS BY FEDERAL, STATE, AND LOCAL GOVERNMENT OFFICIALS

A. Authorized representatives of the state, federal, or local governmental agencies, shall at all times have safe access to the work, and the Contractor shall provide proper facilities for such access and inspection.

4.04 PROTECTION OF PROPERTY

A. Protect stored materials located adjacent to the proposed work. Notify property owners affected by the construction no less than one (1) week and no more than two (2) weeks in advance of the time construction begins. During construction operations, construct and maintain such facilities as may be required to provide access by all property owners to their

property. No person shall be cut off from access to his residence or place of business for a period exceeding two (2) hours, unless the Contractor has made special arrangements with the affected persons.

B. The Contractor shall identify and isolate his active work zone in such a manner as to exclude all personnel not employed by him, the Engineer, and the City.

4.05 FIRE PREVENTION AND PROTECTION

A. The Contractor shall perform all work in a fire-safe manner. He shall supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, state, and local fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

4.06 ACCESS FOR POLICE, FIRE, AND POSTAL SERVICE

A. Notify the fire department and police department before closing any street or portion thereof. No closing shall be made without the City's approval of MOT plan. Notify said departments when the streets are again passable for emergency vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without special written permission from the fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access.

B. The Contractor shall leave a night emergency telephone number or numbers with the police department, the Engineer, and the City, so that contact may be made easily at all times in case of barricade and flare trouble or other emergencies.

C. Maintain postal service facilities in accordance with the requirements of the U.S. Postal Service. Move mailboxes to temporary locations designated by the U.S. Postal Service, and at the completion of the work in each area, replace them in their original location and in a condition satisfactory to the U.S. Postal Service.

PART 5 - PRESERVATION, RESTORATION, AND CLEANUP

5.01 SITE RESTORATION AND CLEANUP

A. At all times during the work, keep the premises clean and orderly, and upon completion of the work, repair all damage caused by equipment and leave the project free of rubbish or excess materials of any kind.

B. Stockpile excavated materials in a manner that will cause the least damage to adjacent lawns, grassed areas, gardens, shrubbery, or fences, regardless of whether these are on private property, or on state, county, or city rights-of-way. Remove all excavated materials from grassed and planted areas, and leave these surfaces in a condition equivalent to their original condition. Replace excavated areas as specified in Section 02222 – Excavation and Backfill for Utilities and Section 02224 – Excavation and Backfill for Structures, raked and graded to conform to their original contours.

5.02 FINISHING OF SITE, BORROW, AND STORAGE AREAS

A. Upon completion of the project, all areas used by the Contractor shall be properly cleared of all temporary structures, rubbish, and waste materials and properly graded to drain and blend in with the abutting property. Areas used for the deposit of waste materials shall be finished to properly drain and blend with the surrounding terrain. Grassed areas shall be restored as specified.

PART 6 - PERMITS

6.01 GENERAL

A. Permits obtained by the City include the following:

1. Environmental Resources Permit, Chapter 62-344
2. Local, County, and State contracting licenses including Broward County, Environmental Resources License (ERL) and Surface Water Management (SWM) License.
3. U.S. Army Corps of Engineers
4. Broward County Traffic Engineering Approval

B. Permits to be obtained by the Contractor include, but are not limited to, the following:

1. Stormwater Pollution Prevention Plan (SPPP) CGP:62-621.300
2. ROW Permits
3. Building Permit
4. Development and Environmental Review Approval
5. Tree Removal/Replacement License
6. Dewatering approval
7. If required, notify City of Fort Lauderdale Water Department prior to removing fire hydrants.

C. The Contractor shall comply with all applicable permit conditions.

- END OF SECTION -

SECTION 01005 INTENT OF DRAWINGS AND SPECIFICATIONS

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. Intent of specifications and drawings is to cover an installation complete in every respect. It is not intended to give every detail on drawings and in specifications. The City will not be responsible for absence of any detail which the Contractor may require, nor for any special construction which may be found necessary as work progresses. If an item is either indicated or specified, it shall be considered sufficient for inclusion of said item in contract. The Contractor shall furnish and install materials and equipment usually furnished with such systems, and as needed to complete an operating installation, whether mentioned or not, which are customary to its trade.

B. Incidental accessories not usually shown or specified but which are necessary for the proper installation and operation shall be included in work without additional cost to the City, the same as if herein specified.

C. Any apparatus, appliance, material or work not shown on the drawings but mentioned in the specifications, or vice versa, or any incidental accessories necessary to make the work complete and ready for operation, shall be furnished, delivered, and installed by the Contractor without additional cost to the City.

D. The City’s or Engineer's interpretation of drawings and specifications shall be final and binding upon Contractor.

E. The Contractor shall visit site prior to submitting bid, and thoroughly investigate and verify all conditions under which work shall be performed.

PART 2 - PRODUCTS

(NOT USED)

PART 3 - EXECUTION

(NOT USED)

- END OF SECTION -

SECTION 01010 SUMMARY OF WORK

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Work to be performed under this Contract shall consist of furnishing and installation of all tools, equipment, materials, supplies, manufactured articles, transportation and services, including fuel, power, water and essential communications for the performance of all labor, work and/or other operations as required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents, which may be necessary for the complete and proper construction of the Work in good faith, shall be provided by the Contractor as though originally so indicated, at no increase in cost to the City.

B. The Contractor shall perform all work required for such construction in accordance with the Contract Documents and subject to the terms and conditions of the Contract, complete and ready for use.

C. The principal features of the Work to be performed under this Contract include site, civil, mechanical, structural, electrical, instrumentation, maintenance of traffic and all related work associated with the Victoria Park Neighborhood Stormwater Improvements. This work includes construction of a new stormwater pump station, new seawall, collection and transmission infrastructure, including catch basins, inlets, stormwater gravity piping, manholes, conflict structures, outfalls, inline check valves, exfiltration trenches, potable water main relocations, gas main relocations, buried fiber and electric relocations (as needed), utility locations, the installation of all tie-ins, roadway replacement, pavement restoration, sidewalk replacement, sod restoration, tree protection, tree relocation, and related work. Also included in the Contract is all material, labor, and equipment for demolition, disposal, maintenance of operations during construction, erosion and sedimentation control, removal and disposal of contaminated soils and groundwater, startup and testing of the new facilities, operation and maintenance manuals, record documents, test equipment and all other appurtenant and miscellaneous work required for completion of the work, in accordance with the Contract Documents and not included in other bid items.

1.02 CONTRACT DOCUMENTS

A. The Work to be done is shown on the Drawings entitled City of Fort Lauderdale Stormwater Improvements Victoria Park Neighborhood. The numbers and titles of all Drawings appear on the index sheets of the Drawings. All drawings so enumerated shall be considered an integral part of the Contract Documents as defined herein.

B. Certain Document Sections refer to Divisions of the Contract Specifications. Sections are each individually numbered portions of the Specifications (numerically) such as 05010, 11005, 15114, etc. The term Division is used as a convenience term meaning all Sections within a numerical grouping. For example, Division 2 would thus include Sections 02000 through 02999 and would mean all site work specifications.

C. Contractor shall note that if there is a conflict between any of the Contract Documents the more stringent requirement shall apply and shall be furnished at no additional cost to the City.

1.03 GENERAL ARRANGEMENT

A. Drawings indicate the extent and general arrangement of the work. If any departures from the Drawings are deemed necessary by the Contractor to accommodate the materials and equipment he proposes to furnish, details of such departures and reasons therefore shall be submitted as soon as practicable to the City for approval. No such departures shall be made without the prior written approval of the City. Approved changes shall be made without additional cost to the City for this work or related work under other Contracts of the Project.

B. The specific equipment proposed for use by the Contractor on the project may require changes in structures, auxiliary equipment, piping, electrical, mechanical, controls or other work to provide a complete satisfactory operating installation. The Contractor shall submit to the City, for approval, all necessary Drawings and details showing such changes to verify conformance with the overall project structural and architectural requirements and overall project operating performance. The Bid Price shall include all costs in connection with the preparation of new drawings and details and all changes to construction work to accommodate the proposed equipment, including increases in the costs of other Contracts.

1.04 CONSTRUCTION PERMITS AND ENCROACHMENTS

A. The Contractor shall obtain, keep current and pay all fees for any necessary construction permits from those authorities, agencies, or municipalities having jurisdiction over land areas, utilities, or structures which are located within the Contract limits and which will be occupied, encountered, used, or temporarily interrupted by the Contractor's operations unless otherwise stated. Record copies of all permits shall be furnished to the Engineer and the City.

B. When construction permits are accompanied by regulations or requirements issued by a particular authority, agency or municipality, it shall be the Contractor's responsibility to familiarize himself and comply with such regulations or requirements as they apply to his operations on this Project.

C. Agencies requiring permits for this project may include, but are not limited to:

1. City of Fort Lauderdale Department of Sustainable Development
2. City of Fort Lauderdale Transportation and Mobility
3. Broward County Traffic Engineering Division
4. South Florida Water Management District
5. Florida Department of Environmental Protection
6. Broward County Resilient Environment Department
7. Florida Department of Transportation
8. United States Army Corps of Engineers

1.05 ADDITIONAL ENGINEERING SERVICES

A. In the event that the Engineer is required to provide additional engineering services as a result of substitution of materials or equipment which are not "or equal" by the Contractor, or changes by the Contractor in dimension, weight, power requirements, etc., of the equipment and accessories furnished, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor for the convenience of the Contractor, then the Engineer's charges in connection with such additional services shall be charged to the Contractor by the City.

B. Structural design shown on the Contract Drawings is based upon typical weights for major items of equipment as indicated on the Contract Drawings and specified. If the equipment furnished differs from that specified in the Contract Documents such that actual weight exceeds the weight of specified equipment, the Contractor shall assume the responsibility for all costs of redesign and for any construction changes required to accommodate the equipment furnished, including the Engineer's expenses in connection therewith, provided that the original weight assumptions were correct.

C. In the event that the Engineer is required to provide additional engineering services as a result of Contractor's errors, omissions, or failure to conform to the requirements of the Contract Documents, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor solely for the convenience of the Contractor, then the Engineer's charges in connection with such additional services shall be charged to the Contractor by the City and shall be deducted from monies due the Contractor.

1.06 ADDITIONAL EXPENSES

A. In the event the Work of this Contract is not completed within the time set forth in the Contract or within the time to which such completion may have been extended in accordance with the Contract Documents, the additional engineering or inspection charges incurred by the City may be charged to the Contractor and deducted from the monies due him. Extra work or supplemental Contract work added to the original Contract, as well as extenuating circumstances beyond the control of the Contractor, will be given due consideration by the City before assessing engineering and inspection charges against the Contractor.

B. Charges for additional City's expenses shall be independent of any liquidated damages assessed in accordance with the Contract.

1.07 TIME OF WORK

A. Unless otherwise specifically permitted, the normal time of work under this Contract is limited to eight (8) hours per day, 40 hours per week, and shall generally be between the hours noted in Article 8.10 of the Contract Documents, Monday through Friday. Work beyond these hours or on City holidays will result in additional expense to the City. Any expenses and/or damages arising from the Contractor's operations beyond the hours and days specified above shall be borne by the Contractor. This provision does not apply to shut down operations required by construction sequencing and constraints to maintain the existing facilities in operation. The Contractor may elect to work beyond these hours or on holidays or weekends provided that all costs incurred by the City for additional engineering shall be borne by the Contractor and approval has been obtained from the City. The City shall deduct the cost of additional engineering costs and overtime from monies due the Contractor.

B. If it shall become imperative to perform work at night, weekends or holidays the City shall be informed in writing a reasonable time in advance of the beginning of such work (minimum of 10 days, except in an emergency situation as determined by the Contractor). Temporary lighting and all other necessary facilities for performing and inspecting the work shall be provided and maintained by the Contractor.

C. Unless otherwise specifically permitted, all work that would be subject to damage shall be stopped during inclement, stormy weather. Only such work as will not suffer injury to workmanship or materials will be permitted. Contractor shall carefully protect his work against damage or injury from the weather.

1.08 SURVEYS AND LAYOUT

A. All work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings or as directed by the Engineer. Elevation of existing ground and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake out survey shall be referred immediately to the Engineer for interpretation or correction.

B. All survey work for construction control purposes shall be made by the Contractor at his expense. The Contractor shall provide a Florida Licensed Surveyor as Chief of Party, competently qualified employees, all necessary instruments, stakes, and other material to perform the work.

C. Contractor shall establish all baselines for the location of the principal component parts of the work together with a suitable number of bench marks and batter boards adjacent to the work. Based upon the information provided by the Contract Drawings, the Contractor shall develop and make all detail surveys necessary for construction, including slope stakes, batter boards, stakes for all working points, lines and elevations.

D. Contractor shall have the responsibility to carefully preserve the bench marks, reference points and stakes, and in the case of destruction thereof by the Contractor or resulting from his negligence, the Contractor shall be charged with the resulting expense and damage and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes. Contractor shall provide a signed and sealed affidavit by his surveyor stating that they have verified all bench marks.

E. Existing or new control points, property markers and monuments that will be or are destroyed during the normal causes of construction shall be reestablished by the Contractor and all reference ties recorded therefore shall be furnished to the Engineer. All computations necessary to establish the exact position of the work shall be made and preserved by the Contractor.

F. The Engineer may check all or any portion of the work and the Contractor shall afford all necessary assistance to the Engineer in carrying out such checks. Any necessary corrections to the work shall be immediately made by the Contractor. Such checking by the Engineer shall not relieve the Contractor of any responsibilities for the accuracy or completeness of his work.

G. At completion of the work, the Contractor shall furnish As-Built Drawings and As-Built GIS Database updates indicating the final layout of all structures, roads, existing benchmarks, etc. The As-Built Drawings and As-Built GIS database updates shall be in accordance with the requirements of Section 01320, Project Record Documents.

1.09 SUBSURFACE DATA

A. Subsurface data are offered in good faith solely for placing the Bidder in receipt of all information available to the City and in no event is to be considered as part of the Contract Documents.

B. The Bidder must interpret such subsurface data according to his own judgment and acknowledge that he is not relying upon the same as accurately describing the subsurface conditions, which may be found to exist.

1. The test boring logs present factual information of the subsurface conditions at the specific test boring location only. The Bidder should not consider, or conclude, that the subsurface conditions will be consistent between test boring locations.

C. In making this data available, the City makes no guarantee, either expressed or implied, as to their accuracy or to the accuracy of any interpretation thereof.

D. Subsurface data for this project can be found in the Appendix.

1.10 OPENINGS, CHASES, SLEEVES, INSERTS, ETC.

A. The Contractor shall provide all openings, chases, etc., in the work to fit his own work and that of any other contractors. All such openings or chases shown on the Drawings, or reasonably implied thereby, or as confirmed or modified by shop, setting, or erecting Drawings approved by the Engineer, shall be provided by the Contractor and/or Subcontractors.

B. Where pipes or conduits are to pass through slabs or walls, or where equipment frames or supports are to be installed as an integral part of an opening, the sleeves, opening forms or frames shall be furnished by the installer of the pipes, conduits, or equipment, but shall be placed by the Subcontractor. Where hanger inserts and similar items are to be installed as an integral part of a slab or wall, they shall be furnished by the installer of the pipe or other equipment requiring the hanger, but shall be verified by the Contractor and incorporated into the concrete placement.

C. When requested by the Contractor, the installer of the pipes, conduit, or equipment, including those Subcontractors who require openings or chases in slabs and walls for passage of ducts, mounting of equipment, etc., shall furnish all necessary information, instructions, and materials to effect accurate installation of the required openings, chases, sleeves, frames, inserts, etc. When such items are secured in position, and just prior to construction of the surrounding slab or wall, the Subcontractor for whom the items are installed shall ascertain the proper number, locations, and settings thereof; and the Contractor shall schedule his operations so as to provide a reasonable opportunity and time interval for such inspection.

D. Any costs resulting from correction of defective, ill-timed, or mislocated work, or for subsequent work which becomes necessary because of omitted openings, chases, sleeves, frames, inserts, etc., shall be borne by the Contractor responsible therefor. To this end, no Contractor shall arbitrarily cut, drill, alter, damage, or otherwise endanger the work of another Contractor. The nature and extent of any corrective or additional work shall be subject to the approval of the Engineer following consultation with the Contractors involved.

1.11 FIRE PROTECTION

A. Contractor shall take all necessary precautions to prevent fires at or adjacent to the work, buildings, etc., and shall provide adequate facilities for extinguishing fires which do occur. Fires shall not be permitted.

B. When fire or explosion hazards are created in the vicinity of the work as a result of the locations of fuel tanks, or similar hazardous utilities or devices, the Contractor shall immediately alert the local Fire Marshal and the City of such tank or device. The Contractor shall exercise all safety precautions and shall comply with all instructions issued by the Fire Marshal and shall cooperate with the City to prevent the occurrence of fire or explosion.

1.12 FIRST AID FACILITIES AND ACCIDENTS

A. First Aid Facilities

1. The Contractor shall provide at the site such equipment and facilities as are necessary to supply first aid to any of his personnel who may be injured in connection with the work.

B. Accidents

1. The Contractor shall promptly report, in writing, to the City all accidents whatsoever out of, or in connection with, the performance of the work, whether on or adjacent to the site, which cause death, personal injury or property damage, giving full details and statements of witnesses.

2. If death, serious injuries, or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the City and the Engineer.

3. If any claim is made by anyone against the Contractor or a Subcontractor on account of any accidents, the Contractor shall promptly report the facts, in writing, to the City, giving full details of the claim.

1.13 SAFETY AND HEALTH REQUIREMENTS

A. The Contractor shall comply in every respect with all Federal, State and local safety and health regulations. Copies of the Federal Regulations may be obtained from the U.S. Department of Labor, Occupational Safety and Health Administration.

B. The Contractor shall provide all barricades and flashing warning lights or other devices necessary to warn pedestrians and area traffic.

C. Personnel working in contact with sewage flow or surfaces carrying wastewaters or sludges shall be immunized as recommended by the State of Florida Health Department.

1.14 ULTIMATE DISPOSITION OF CLAIMS BY ONE CONTRACTOR ARISING FROM ALLEGED DAMAGE BY ANOTHER CONTRACTOR

A. During the progress of the work, other Contractors may be engaged in performing other work or may be awarded other Contracts for additional work on this project. In that event, the Contractor shall coordinate the work to be done hereunder with the work of such other Contractors and the Contractor shall fully cooperate with such other Contractors and carefully fit its own work to that provided under other Contracts as may be directed by the City. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor.

B. If the Engineer determines that the Contractor is failing to coordinate his work with the work of the other Contractors as the City directed, then the City shall have the right to withhold any payments otherwise due hereunder until the Contractor completely complies with the City's directions.

C. If the Contractor notifies the Engineer in writing that another Contractor is failing to coordinate his work with the work of this Contract as directed, the Engineer will promptly investigate the charge. If the Engineer finds it to be true, the City will promptly issue such directions to the other Contractor with respect thereto as the situation may require and issue a response to the

Contractor in writing. The City, the Engineer, nor any of their agents shall not, however, be liable for any damages suffered by the Contractor by reason of the other Contractor's failure to promptly comply with the directions so issued by the City, or by reason of another Contractor's default in performance, it being understood that the City does not guarantee the responsibility or continued efficiency of any Contractor.

1.15 LIMITS OF WORK AREA

A. The Contractor shall provide for the storage of equipment, materials, and accumulated construction debris off-site. Responsibility for protection and safekeeping of equipment and materials at or near the sites will be solely that of the Contractor and no claim shall be made against the City by reasons of any act of an employee or trespasser.

B. The Contractor shall secure all storage areas used for the project work. If required, Contractor shall submit a temporary fencing plan and permits for all storage areas used for the project work.

C. The Contractor shall provide a phasing and staging plan that results in minimal impact to the site and nearby residences and provides for continual pedestrian and vehicular access.

1.16 WEATHER CONDITIONS

A. No work shall be done when the weather is unsuitable. The Contractor shall take necessary precautions (in the event of impending severe weather, including hurricanes, tropical storms or major rain/wind storms) to protect all work, materials, or equipment from damage or deterioration due to floods, driving rain, and/or wind. The City reserves the right, to order that additional protection measures over and beyond those proposed by the Contractor, be taken to safeguard all components of the Project.

B. The mixing and placing of concrete or pavement courses, the laying of masonry, and installation of sewers and water mains and stormwater pipes shall be stopped during rainstorms, if ordered by the Engineer; and all freshly placed work shall be protected by canvas or other suitable covering in such manner as to prevent running water from coming in contact with it. Sufficient coverings shall be provided and kept ready at hand for this purpose. The limitations and requirements for mixing and placing concrete or laying of masonry, in cold weather shall be as described elsewhere in these Specifications.

1.17 WEATHER DAYS

A. A “Weather Day” is defined as a normal work day during which the Contractor was unable to perform critical path work for a continuous period of more than four (4) hours during that day.

B. The Contractor shall be required to submit a record of rain delay in accordance with the contract documents and within 48 hours of the occurrence of the event to the Engineer and the Owner for review.

C. Weather Days must be reported in the Progress Schedule Update Narrative Report and substantiated with the amount of rainfall obtained from the nearest City identified rain gauge and a description of the activity that was interrupted.

1.18 HURRICANE PRECAUTIONS

A. During such periods of time as are designated by the United States Weather Bureau as being

a hurricane watch or warning, the Contractor, at no cost to the City, shall take all precautions necessary to secure the Project site in response to all threatened storm events.

B. Compliance with any specific hurricane watch or warning precautions will not constitute additional work.

C. Suspension of the Work caused by an impending or actual storm event will entitle the Contractor to additional Contract Time equivalent to the time lost as a result of the threatened or actual storm event and shall not give rise to a claim for compensable delay.

1. In the event of a threatened storm that does not occur, the Contract Time will be equivalent to the time between United States Weather Bureau notice of a watch or warning and the lifting of same.

2. In the event of an actual storm event, the Contract Time will be equivalent to the time between United States Weather Bureau notice of a watch or warning and the time required to establish safe working conditions.

1.19 USE OF FACILITIES BEFORE COMPLETION

A. The City reserves the right to enter and use any portion of the constructed facilities before final completion of the whole work to be done under this Contract. However, only those portions of the facilities which have been completed to the City's satisfaction may be placed into service. The City will issue only one Certificate of Substantial Completion to the Contractor covering the entire project regardless of when each portion of the facilities is placed into service.

B. It shall be the City's responsibility to prevent premature connections to or use of any portion of the installed facilities by private or public parties, persons or groups of persons, before the City issues his Certificate of Substantial Completion covering that portion of the work to be placed in service.

C. Consistent with the approved progress schedule, the Contractor shall cooperate with the City to accelerate completion of those facilities, or portions thereof, which have been designated for early use by the City.

1.20 UTILITY LOCATIONS

A. As far as possible, all existing utility lines in the project area have been shown on the plans. However, Fort Lauderdale does not guarantee that all lines are shown, or that said lines are in their true location. It shall be the Contractor’s responsibility to identify and locate all underground or overhead utility lines or equipment affected by the project. No additional payment will be made to the Contractor because of discrepancies in actual and plan location of utilities.

B. The Contractor shall notify each utility company involved at least thirty (30) days prior to the start of construction to arrange for positive underground location, relocation, or support of its utility where that utility may be in conflict with or endangered by the proposed construction. Relocation of water mains or other utilities for the convenience of the Contractor shall be paid for by the Contractor. All charges by utility companies for temporary support of its utilities shall be paid for by the Contractor. All cost of permanent utility relocations to avoid conflict shall be the responsibility of the Contractor and the utility company involved.

C. The Contractor shall schedule and coordinate the Work in such a manner that it is not delayed

by the utility companies relocating or supporting their utilities. No compensation will be paid to the Contractor for any loss of time or delay.

D. All overhead, surface or underground structures and/or utilities encountered are to be carefully protected from damage or displacement. All damage to said structures and/or utilities is to be completely repaired within a reasonable time; needless delay will not be tolerated. The City reserves the right to remedy any damage by ordering outside parties to make repairs at the expense of the Contractor. All repairs made by the Contractor are to be made to the satisfaction of the utility owner and shall be inspected by a representative of the utility owner and the Engineer.

E. The Contractor should be aware of the Sunshine State One Call Center, which has a free locating service for contractors and excavators:

1. Within forty-eight hours before excavating, dial toll free 811, and a locator will be dispatched to the Work location. Contractor shall reasonably notify other utility companies not notified by Sunshine State One Call Center.

F. In the event that during the course of the Work Contractor encounters subsurface or concealed conditions or unknown physical conditions of an unusual nature at the Project site which differ materially from those shown on the Contract Documents, which are not marked in the field by locating services or Utility Department, and which differ from those ordinarily encountered and generally recognized as inherent in Work of the character called for in the Contract Documents, Contractor, without disturbing the conditions and before performing any Work affected by such conditions, shall, within twenty-four (24) hours of their discovery, notify City and Engineer in writing of the existence of the aforesaid conditions. Engineer and City shall, within two (2) business days after receipt of Contractor's written notice, investigate the site conditions identified by Contractor. Should Engineer determine that the conditions of the Project site are not so materially different to justify a change in the terms of the Contract, Engineer shall so notify City and Contractor in writing, stating the reasons, and such determination shall be final and binding upon the parties hereto.

G. No request by Contractor for a change to the Contract Price or Time under this provision shall be allowed if the Contractor has not given written notice in strict accordance with these provisions, or if it is made after the date certified by the Engineer as the date of Substantial Completion.

1.21 ENVIRONMENTAL PROTECTION

A. The Contractor shall furnish all labor and equipment and perform all Work required for the prevention of environmental pollution during and as a result of the Work under this contract. The Contractor shall be responsible for preparing and complying with the requirements of the National Pollution Prevention Discharge Elimination System (NPDES) and Storm Water Pollution Prevention Plan (SWPPP), including preparation and submittal of the Notice of Intent (NOI) prior to start of construction. For the purpose of this contract environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life, affect other species of importance to man, or degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, land and involves noise, solid waste management and management of radiant energy and radioactive materials, as well as other pollutants.

B. The Contractor shall take all steps necessary to protect water quality in the connected waters

around the project and shall utilize such additional measures as directed by the Engineer. Silt screens, hay bales, turbidity curtains, or other control measures adjacent to outfall construction shall not be removed until the turbidity of the affected waters is equal to or lower than the ambient turbidity of undisturbed segments of adjacent surface waters.

PART 2 -- PRODUCTS

(NOT USED)

PART 3 -- EXECUTION

(NOT USED)

- END OF SECTION -

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 THE REQUIREMENT

A. Payment for various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor operations and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenance items of work.

B. Payment for the various items of the Bid Schedule shall constitute full compensation for Contractor's superintendent at the job site full-time during construction, for furnishing and installing all pipe and structures complete in place including but not limited to bends, tees, outlets, fittings, blind flanges and specials, including connections to existing pipelines shown on the Drawing; including surveying both horizontal and vertical control for construction of the roadways, structures, pipeline and appurtenances; including all earthwork, excavation as shown on the Drawing, removal and disposal of waste, unsuitable and excess material, furnishing and installing pipe bedding material, all backfill and compaction of native material, and dewatering as required; including potholing to verify locations of existing utilities in advance of construction; the restoration of interfering portions of existing service and utility lines that are not included in other bid items and shown on the Drawing, including replacement of sewer lines with ductile iron pipe where the minimum vertical clearances are not met for the sewer line shown; restraint of pipe shown on the Drawing and grouting of pipe joints; including providing the water for pressure testing, cleaning the pipe and disinfection (for potable water mains), and disposal of the water as required when completed; furnishing, installation, and removal of test heads, cleanup; and restoration of all improvements incidental to construction for which there are no other bid items; including but not limited to, sprinkler systems, drainage systems, guardrails, landscaping, fences, curbs and gutters, and all other work not included in other bid items.

C. Payment shall also include providing the necessary equipment and manpower to pothole and verify depths and locations of existing utilities a minimum of two weeks ahead of construction to avoid conflicts with the design alignment and grade of the proposed infrastructure. Conflicts with utilities shown on the Drawing which result from the Contractor's negligence to pothole sufficiently ahead of construction (a minimum of two days ahead of construction of the pipeline or as approved by the Engineer) shall be resolved by the Contractor at no additional cost to the Owner. Unmarked utilities damaged during construction will be paid under unit prices in the Bid Package for similar work, if and as approved by the Engineer.

D. Payment for all bid items shall constitute full compensation for the complete installation of each bid item including but not limited to excavation, dewatering, backfill and compaction. The work shall include for all bid items to be completed, tested and ready for acceptance by the appropriate government agency.

E. No separate payment for pavement restoration will be made unless specifically shown on the plans or directed by the Engineer. All bid items shall include pavement restoration.

F. The Contractor's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the contractor feel that the cost for any item of Work has not been established by the Schedule of Prices Bid for this Section, it shall include the cost for that Work in some other applicable bid item, so that its proposal for the project does reflect its total price for completing the Work in its entirety.

1.02 MEASUREMENT - GENERAL

A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and Specifications as specified in National Institute of Standards and Technology, Handbook 44.

B. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.

C. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawing. Variations of 1 foot or less will be ignored, and profiles shown on Drawing will be used for determining quantities. Variations greater than one foot will be considered in adjusting quantities.

D. Units of measure shown on Bid Form shall be as follows, unless specified otherwise. All methods of measurement shall be approved by the City.

Item	**Method of Measurement**
AC	Acre – Field Measure / Calculation / Survey
AL	Allowance
CY	Cubic Yard – Field Measure / Vehicle Measure by Volume
EA	Each – Field Count
GAL	Gallon – Field Measure
HR	Hour

LB	Pound(s) – Weight Measure
LF	Linear Foot - Field Measure
LOT	Each Lot
LS	Lump Sum - Unit is one / No Measurement
SY	Square Yard – Field Measure
TON	Ton – Weight Measure by Scale (2,000 pounds)

1.03 SCHEDULE OF PRICES BID

A. General Payment Items

- Item 1 – All Work Associated with the Mobilization and Demobilization (7.5%): The Contractor may request payment for this bid item after the initial Notice to Proceed has been issued. This bid item is limited to 7.5% of the total bid price. Any amount in excess of 7.5% will be moved to the last line item as deemed necessary and created by Procurement Services. However, the total bid amount will not change. The 7.5% ceiling on this bid item is not responsiveness, just an instruction on the amount the CITY will pay for work associated with Mobilization and Demobilization. Payment for Mobilization will be made at the lump sum price named in the Item Response Form. An initial lump sum partial payment of 40% of the line bid item shall be made upon issuance of the Notice to Proceed for mobilization. A final lump sum payment of the remaining 60% for demobilization will be made upon the original or amended Substantial Completion contract time stated in the original contract, amended contract, change order, another notice to proceed, or any other permissible document utilized to extend the Substantial Completion contract time. The amount in excess of 7.5% will be paid on the last payment application submitted by the Contractor.

- Item 2 – All Work Associated with the Maintenance of Traffic: The lump sum price for this item shall be full compensation for all labor, equipment, material, and work required for maintenance of traffic in accordance with FDOT Standards and/or Broward County and/or the City of Fort Lauderdale. This item includes, but is not limited to, preparation and submittal of maintenance of traffic plans (MOTs), addressing comments regarding MOTs from agencies with jurisdiction, providing personnel as required to direct traffic (flaggers, crossing guards, local police, etc.), all temporary signage and striping, message boards, barricades, temporary barrier walls, drums, cones, providing signs, lights, installing temporary fencing and walkways as required to maintain pedestrian traffic, installing temporary steel plates for vehicular traffic and all other work incidental to the maintenance of traffic as required by FDOT Standards and/or Broward County and/or the requirements of the City of Fort Lauderdale and the Contract Documents. Payment for Maintenance of Traffic shall be made in equal monthly amounts during the duration of the Contract time.

- Item 3 – All Work Associated with the GIS Database Additions: The lump sum price for this bid item shall be full compensation for the preparation and addition of the proposed infrastructure data to the existing City GIS Database in accordance with the Contract Documents. This item includes, but is not limited to all necessary adjustments to the implemented data to create a seamless

addition to the existing infrastructure. Payment for this item shall be made in full upon approval by the City of Fort Lauderdale for this work. No partial payments shall be made. This item includes all work not defined in other bid items for the Project.

- Item 4 – All Work Associated with the As Built/Record Drawings: The lump sum price for this bid item shall be full compensation for preparation, submittal, and approval of As-Built/Record Drawings, furnished in accordance with the Contract Documents. For all improvements, the CONTRACTOR shall conform to the City of Fort Lauderdale standards and requirements. See Section 01320 for a complete description. Partial payments for this item shall be made as follows:

Milestone	Allowable % of Lump Sum for As Built/Record Drawings
Submittal of Draft Complete As-Built/Record Drawings to Engineer	25
Engineer's Approval of As-Built/Record Drawings	75
Final Acceptance of As-Built/Record Drawings by City	100

- Item 5 – All Work Associated with the Prevention, Control, & Abatement of Erosion and Water Pollution: The lump sum price indicated for this bid item shall be full compensation for all labor, equipment, and material necessary for preparation, submittal, approval, and implementation of the NPDES Permit Application (Notice of Intent and Notice of Termination), reporting by a person holding a certification as an FDEP NPDES Construction Site Inspector, preparing a Stormwater Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMP) and environmental pollution protection throughout construction as outlined in the Contract Documents and required by the City. Payment for this item shall be made in equal monthly payments throughout the duration of the project.

- Item 6 – Provide Vibration Monitoring Inspection Consultant (VMC) and Noise Monitoring Consultant (NMC): The lump sum price for this item shall be full compensation for all labor, equipment, and material for all work necessary and required for to retain the services of a Vibration Monitoring and Inspection Consultant (VMC) and a Noise Monitoring Consultant (NMC). This item includes, but is not limited to, all general, labor, and equipment required for vibration and noise inspection and monitoring services in accordance with the Contract Documents.

B. Pump Station

- Item 7 – Stormwater Pump Station: The lump sum price for this item shall be full compensation for all labor, equipment, and material for all work necessary for the construction of the Stormwater Pump Station as required in the Contract Documents. This item includes, but is not limited to, all general, civil, mechanical, structural, electrical, instrumentation and control, testing of all materials and

equipment associated with the pump station construction, startup services, and sitework required for a complete and operable system. This item includes the furnishing and installation of all utility services and appurtenances associated to the pump station, including but not limited to potable water, sanitary sewer, yard drain, irrigation, electrical power, and telephone. This item includes the installation pump station outfall pipe, rip rap, embankment stabilization, and other scouring prevention features to protect the canal bed from pump station discharge erosion where required by regulatory agencies and shown on the Contract Drawings.

C. Seawall

- Item 8 – Cantilever Steel Sheet Pile Wall with Concrete Cap: The unit price for this item is the payment, on a linear foot basis, for all materials, labor, equipment, and work necessary and required for the complete installation of a cantilevered steel sheet pile wall with concrete cap. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, surface preparation and application of coating to steel sheet pile wall, installation of cantilevered steel sheet pile wall, concrete cap, termination details at ends, all required temporary bracing, shoring, sheeting, demolition, removal and disposal of existing seawall in accordance with the Contract Documents. This item also includes all noise, vibration, and settlement mitigation measures required in accordance with the Contract Documents.

- Item 9 – Outfall Drainage Pipe Penetration Through Proposed Seawall: The lump sum price indicated for this bid item shall be full compensation for all labor, equipment, material, and work necessary and required for constructing the 42-inch storm drain outfall penetration through the proposed seawall. This item includes, but is not limited to, excavation (including rock), removal of existing wall as required, penetration through proposed wall, installing concrete face, and all other appurtenant work as shown in the Contract Documents associated with the pipe penetration. This item also includes restoring the mudline at the pipe outfall where disturbed from the concrete face construction.

- Item 10 – Furnish and Install FDOT #57 Stone: The unit price for this item is the payment, on a cubic yard basis, for all labor, equipment, material and work required for furnishing and installing FDOT #57 stone as required for a complete installation of the proposed seawall. This item includes the furnishing and placement of FDOT #57 stone between the proposed seawall and the existing seawall as shown in the Contract Documents. This item excludes all FDOT #57 stone used for any other purpose.

D. Drainage

- Item 11 – Remove and Dispose of Existing Storm Drainage Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and material required to remove and dispose of existing drainage structures at all depths. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all

materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, removal and disposal of existing drainage structure, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing, including post-construction testing, and all associated restoration work.

- Item 12 – Remove and Dispose of Existing Storm Drainage Pipe and Exfiltration Trench: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to remove and dispose of existing storm drainage pipes and exfiltration trenches at all depths. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, removal and disposal of existing pipe, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing, including post-construction testing, and all associated restoration work.

- Item 13 – Grout, Cut, Cap, and Abandon Existing Storm Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to grout, cut, cap, and abandon existing storm drain pipes and all depths. This item includes but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, cutting, plugging, grouting, and abandoning of existing pipe, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing, including post-construction testing, and all associated restoration work.

- Item 14 – Grout, Cap, and Abandon Existing Storm Drainage Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and material required to grout, cap, and abandon of existing drainage structures at all depths. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, cutting, plugging, grouting, and abandoning of existing drainage structure, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, all testing,

including post-construction testing, and all associated restoration work.

- Item 15 – Furnish and Install FDOT “Type C" Ditch Bottom Inlet: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install “Type C” ditch bottom inlets at all depths, all in accordance with the Contract Documents.. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, construction and installation of the reinforced concrete ”Type C” Ditch Bottom Inlet, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Item 16 – Furnish and Install FDOT “Type 9” Curb Inlet: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install “Type 9” Curb Inlets at all depths, all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, construction and installation of the reinforced concrete ”Type 9” Curb Inlet, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Items 17 and 18 – Furnish and Install Catch Basins: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install catch basins at all depths, all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of the reinforced concrete catch basins, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Items 19 through 22 – Furnish and Install Manholes: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install manholes, conflict manholes, at all depths, all in accordance with the Contract Documents. This item includes, but is

not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of the reinforced concrete manholes, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, corbel tops, mud work, filter fabric, frames, grates, rims, covers, rain guards, all appurtenant items, and associated restoration work.

- Item 23 – Furnish and Install Outfall Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install outfall structures all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of outfall structure, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Item 24 – Furnish and Install Weir Control Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install weir control structures all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, temporary bracing of existing adjacent structures, construction and installation of the reinforced concrete control structure including the concrete weir, plugged openings (bricks and expanding grout as approved by Engineer), backfill and compaction, base pad, mud work, filter fabric, frames, grates, rims, covers, sealing pipe inlets and outlet, concrete top slabs, all appurtenant items, and associated restoration work.

- Item 25 – Furnish and Install Concrete Collar for Catch Basin: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install concrete collars for catch basins all in accordance with the Contract Documents. This item includes, but is not limited to, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, removal and disposal of all materials (including unsuitable), removing and disposal of plants, bushes, shrubs, roots, installing temporary bypass pumping and/or providing flow diversion, temporary bracing of existing adjacent structures, compaction,

stabilization of subgrade, formwork, furnishing and setting expansion joint material, concrete, backfilling, disposal of excess material, all appurtenant items and associated restoration work.

- Items 26 through 30 – Furnish and Install Drainage Pipe RCP or HP-PP: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store, and install reinforced concrete pipe or corrugated polypropylene drainage pipe all in accordance with the Contract Documents. The item includes, but it is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, joint material, pipe bedding, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement for payment shall be the linear feet of pipe installed along the horizontal centerline of the pipe in place, not including through structures, all in accordance with the requirements of the Contract Documents. The unit price shall apply to all installations depths as required by the drawings, with no additional compensation for variations in depths.

- Item 31 – Furnish and Install Drainage Pipe Elliptical RCP: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store, and install elliptical reinforced concrete pipe all in accordance with the Contract Documents. The item includes, but it is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, joint material, pipe bedding, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement for payment shall be the linear feet of pipe installed along the horizontal centerline of the pipe in place, not including through structures, all in accordance with the requirements of the Contract Documents. The unit price shall apply to all installations depths as required by the drawings, with no additional compensation for variations in depths.

- Item 32 - Furnish and Install Exfiltration Trench RCP Perforated Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and material required to furnish, transport, store, and install exfiltration trench including slotted drainage pipe all in accordance with the Contract Documents. The item includes, but it is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing

paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, perforated drainage pipe, ballast rock, filter fabric, joint material, bedding, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. Measurement for payment shall be the linear feet of pipe installed along the horizontal centerline of the pipe in place, not including through structures, all in accordance with the requirements of the Contract Documents. The unit price shall apply to all installations depths as required by the drawings, with no additional compensation for variations in depths.

- Item 33 – Furnish and Install Pollution Retardant Baffles: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install pollution retardant baffles all in accordance with the Contract Documents. This item includes, but is not limited to, furnishing and installing anchor bolts, angle brackets, seals, gaskets, pollution retardant baffles, grout, and any other items required for a complete and satisfactory installation.

- Items 34 through 36 – Furnish and Install Manatee Grate: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install manatee grates all in accordance with the Contract Documents. This item includes, but is not limited to, furnishing and installing anchor bolts, grout, grates, and any other items required for a complete and satisfactory installation.

- Item 37 – Connect Existing Pipe to Proposed Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to connect an existing pipe to a proposed structure all in accordance with the Contract Documents. This line item includes up to two existing pipe connections to a new structure. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, removal and disposal of portions of the existing piping, grouting, construction of the connection, temporary bracing of existing structures, mud work, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work.

- Item 38 – Connect Proposed Pipe to an Existing Structure: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to core drill an existing structure and connect a proposed pipe

all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, cleaning and desilting and sealing the existing structure, core drilling or removing the existing knockout plug where applicable, grouting, construction of the connection, temporary bracing of existing structures, mud work, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work. This items includes new connections to existing structures where no prior openings exist, and replacement or upsizing of existing connections to existing structures.

- Item 39 – Connect Proposed Pipe to Existing Pipe: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to connect a proposed pipe to an existing pipe all in accordance with the Contract Documents. This item includes, but is not limited to, locating, verifying, and protecting existing utilities, saw cutting, removing, and disposing existing paving, curbs, gutters, and sidewalks, excavating (including rock), dewatering, installing temporary sheeting and shoring, removing and disposing of all materials (including unsuitable), removing and disposing of plants, bushes, shrubs, roots, installing temporary bypass and/or providing flow diversion, construction of the connection, including connections between dissimilar piping materials, backfilling and compacting fill material, furnish, placing, and compacting base material, applying tack coat, applying all structural asphalt courses to match existing grade, providing temporary pavement markings and striping, pipe flushing, all testing, including post-construction testing, appurtenance items, and all associated restoration work.

- Items 40 and 41 – Line Existing Storm Pipe with C.I.P.P.: This work will be performed, if necessary, as determined by the CCTV inspection report. This work will be measured and paid for at the unit price per linear foot of liner as delineated by the pipe size and depth brackets named in the Bid Schedule. Measurement shall be made based on the horizontal projection of the centerline of the permanently installed liner between drainage structures, measured to the nearest foot from the inside wall of structure to the inside wall of structure for each section lined. Each unit price bid shall include, but not limited to, all necessary or required resident and business notifications, preparation of the existing outfall, including blocking or plugging incoming lines; installation of access/lining manhole, removal, transportation and disposal of material generated by preparation; post-lining television surveys; chemical joint sealing if necessary; pipe lining; the cost of obtaining a water meter; cleaning; sample collection; material testing, grouting to eliminate infiltration at liner ends; cleanup; documentation and reporting; and all labor, materials and equipment required to provide a complete an acceptable liner installation.

- Items 42 through 45 – Furnish and Install Inline Check Valve: The unit price for this item shall be full compensation on a per each basis for all labor, equipment, and materials required to furnish and install inline check valves all in accordance with the Contract Documents. This item includes, but is not limited to, furnishing and installing anchor bolts, rings, seals, gaskets, valves, grout, testing, and any other items required for a complete and satisfactory installation.

E. Maintenance of Existing Drainage

- Item 46 – Heavy Desilt/Water Jetting and CCTV of Existing Outfall Drainage Pipe: The unit price for this item shall be full compensation on a per linear foot basis for all labor, equipment, and materials required to clean and televise the existing stormwater pipe within the project limits. This item includes, but is not limited to, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the sewer lines for clear viewing of the interior surface of the pipe during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks in pipe, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of pipe; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. Measurement for payment for cleaning/televising of drainage pipe will be based upon the number of linear feet of such pipe as determined by measurement along the centerline of the pipe in place, not including through structures. The Contractor shall notify and provide documentation acceptable to the City if contaminated materials are suspected within the pipe.

- Item 47 – Heavy Desilt/Water Jetting and CCTV of Existing Drainage Structure: The unit price for this item shall be full compensation on a per each structure basis for all labor, equipment, and materials required to clean and televise existing stormwater structures within the project limits. This items includes, but is not limited to, initial field investigation to identify site conditions or access issues requiring special arrangements and/or City notification/coordination; system dewatering using plugs and hoses as needed along with necessary maintenance of traffic and safety precautions where the hoses cross streets or driveways; cleaning to remove foreign material from the structures for clear viewing of the interior surface of the structures during video inspection and to restore the sewer to near original carrying capacity; video documentation of the location and extent of displaced joints, cracks or breaks structures, and other defects that may permit groundwater infiltration and/or ingress of soil from around the exterior of structures; and, submittal of video in digital format to the City. Payment shall be made at the unit price at the conclusion of cleaning/televising and after video is reviewed and accepted by the City. The Contractor shall notify and provide documentation acceptable to the City in the event that contaminated materials are suspected within the structure.