

ADDENDUM NO. 1  
To the Plans and Specifications for:

**IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH  
WATERSHED (PHASE VI) (674) (SCHEDULES A-G)**

City of Treasure Island

1. **BID DATE: NO CHANGE**

**Monday, December 18, 2017 @ 2:00 p.m.**

2. **TECHNICAL SPECIFICATIONS:**

*Section 00320B – Bid Proposal Form*

Pay Item B-S-17A (Thermoplastic Striping, White, 12”) has been added.

Pay Item B-S-19 (Patterned Pavement Crosswalk) has been added.

A revised Bid Schedule has been issued.

*Section 00320F – Bid Proposal Form*

Pay Item F-PL-10A (FDOT Type “J-8T” Manhole (4’ Dia.)) has been added.

A revised Bid Schedule has been issued.

*Section 01025A – Measurement and Payment (City)*

Notation has been added to Section 1.05 to include project signs (2) and Storm Preparedness Plan development (and implementation) as project incidentals.

Temporary striping has been added as a subtask to the various Maintenance of Traffic pay items.

The installation of preformed expansion joint material has been included as a subtask to Pay Item A-DI-4 (Trench Drain (Tern Lot)) and A-DI-5 (Trench Drain (Ring-Billed Gull Lot)).

Backfill material has been added as a subtask to the various stormwater piping pay items.

A pay item description has been added for newly added pay items B-S-17A (Thermoplastic Striping, White, 12”), B-S-18 (Patterned Pavement Crosswalk) & F-PL-10A (FDOT Type “J-8T” Manhole (4’ Dia.)).

The adjustment of two (2) sanitary manhole ring and covers has been included as a subtask to Pay Item A-S-13 (Restore Incidental Parkway Items).

A revised Measurement & Payment Section has been issued.

*Section 01025B – Measurement and Payment (County)*

Flushing of adjusted/newly installed services has been included as a subtask to the various service-related pay items.

Pressure testing has been included as a subtask to Pay Item D-RW-4 (4” Ductile Iron Reclaimed Water Main Installation).

A revised Measurement & Payment Section has been issued.

**3. PLANS: NO CHANGES**

**4. RESPONSE TO QUESTIONS:**

RSQ.1 Per the pipe detail on plan sheet C-9, is 57 Pipe Bedding required under all pipe? If so, does this bedding stone need to be wrapped in Fabric per DOT specifications?

**The Contractor shall utilize FDOT No. 57 for pipe bedding. Wrapping of the bedding material will not be required.**

**Please note that the use of FDOT No. 57 stone is not intended to negate the need to install the pipe under dry conditions.**

RSQ.2 Note #6, under the MOT notes on plan sheet C-2 states a VMB is required for the duration of the job. How many VMB's are required and should we assume for 210 days or two weeks prior to starting?

**A single VMB will be required at the north end of the project. The VMBs are required in order to inform the public of the various traffic patterns during construction. The VMB can be placed on site two weeks prior to the implementation of Phase I. The VMB shall remain onsite through the remainder of the project.**

RSQ.3 Gulf Blvd currently has brick crossing at various locations. Do these brick crossings need to be replaced after the road construction and milling or will cross walks just need to be striped?

There is a pay item for the 6” white & yellow striping. What are the 12” striping for crosswalks and stop bars?

**Please note a pay item has been added for the patterned pavement and crosswalk striping.**

RSQ.4 Can you provide the engineer's estimate?

**Please reference the below estimates for the various schedules of work:**

**Schedule A: \$575,000.00**

**Schedule B: \$100,000.00**

**Schedule C: \$30,000.00**

**Schedule D: \$105,000.00**

**Schedule E: \$285,000.00**

**Schedule F: \$240,000.00**

**Schedule G: \$230,000.00**

RSQ.5 On this Bid with several Schedules (SWFWMD -Funded , City-Funded, and County-Funded ) and then 2 Options for the TERN parking lot (as either Pervious Concrete or Asphalt paving ) , please clarify which Total will be the Basis for Award .

**Section 00320T of the specifications requires the Contractor to total the various schedules that comprise Option 1 and Option 2. The City shall determine which option is used to award the bid as stated within this section.**

**Option 1 is the preferred option. However, in the event pricing received is higher than anticipated, the Option 1 price may exceed the funds available for the project. In this scenario, Option 2 would be used as the basis of bid award.**

## **5. GENERAL INFORMATION/ CLARIFICATIONS:**

### *General (Schedules A-G)*

- GC.1 It shall be noted that long term residents (i.e. not seasonal residents) are believed to reside within the project area(s).
- GC.2 In order to better defend against resident claims, it is recommended that the Contractor's Pre-Construction Video be very detailed and thorough.
- GC.3 If requested by the City, the Contractor shall be required to attend a Public Information Meeting prior to the commencement of the work. It is likely that this meeting would be held after normal working hours.
- GC.4 The City recommends that the Contractor report all resident claims of damage to the City. It is highly recommended that the Contractor not attempt to settle resident claims without the City's involvement.

- GC.5 The project will be underway during the Memorial Day, Fourth of July and Labor Day holidays. Heavy traffic can be expected at these times. The Contractor shall have the site prepared / cleaned for this heavier than normal traffic by noon the day before the holiday or holiday weekend.
- GC.6 The Contractor will be permitted to stage within the Ring-Billed Gull Parking Lot for the duration of the project. A full closure of this parking lot will be permitted for the entire project's duration.
- GC.7 The Contractor shall submit a Storm Preparedness Plan fifteen (15) days after the notice to proceed (NTP). The plan shall outline the necessary measures the Contractor proposes to perform at no additional cost to the City upon the issuance of an official storm warning issued by the National Weather Service.
- GC.8 In Phase I of the Conceptual Construction Phasing Plan, the closure of West Gulf. Blvd shall not exceed three (3) days.
- GC.9 Compensation for unsuitable material removal and replacement will only be provided when unsuitable material is located beneath the bedding of a pipe and/or structure. Unsuitable material that resides above this elevation shall be removed, and disposed of, at the Contractor's expense.
- GC.10 Detectable warning surface color shall be determined by the City during the shop drawing stage.

*SWFWMD & City-Funded Improvements (Schedules A & B)*

- GC.11 Preformed expansion joint material (1/2") shall be placed at all concrete sidewalk / concrete driveway apron joints.
- GC.12 Detail 1, on Sheet C10, identifies that roadway restoration will entail half of the roadway (maximum). Roadway restoration shall only be performed on an as-needed basis based upon the trench widths identified in other plan details. The Contractor shall make all efforts to minimize trench widths. Trench width dimensions that exceed the dimensions shown on Detail 3, of Sheet C9, shall be approved by the City prior to implementation. Roadway restoration quantities were based upon the dimensions within this detail.
- GC.13 Driveway grade adjustments, as needed to match new roadway/sidewalk grades, shall only extend 5' west of the sidewalk. Driveway removal and replacement beyond these limits shall be approved by the City prior to performing the work.
- GC.14 A detail for sanitary lateral conflict structures has been attached to this addendum.

Pinellas County Utility Improvements (Schedules C & D)

GC.15 The Contractor shall include the potable and reclaimed water improvements within the record drawings. The Contractor shall set witness posts at all bends/deflections as bends/deflections will need to be shown on the record drawings.

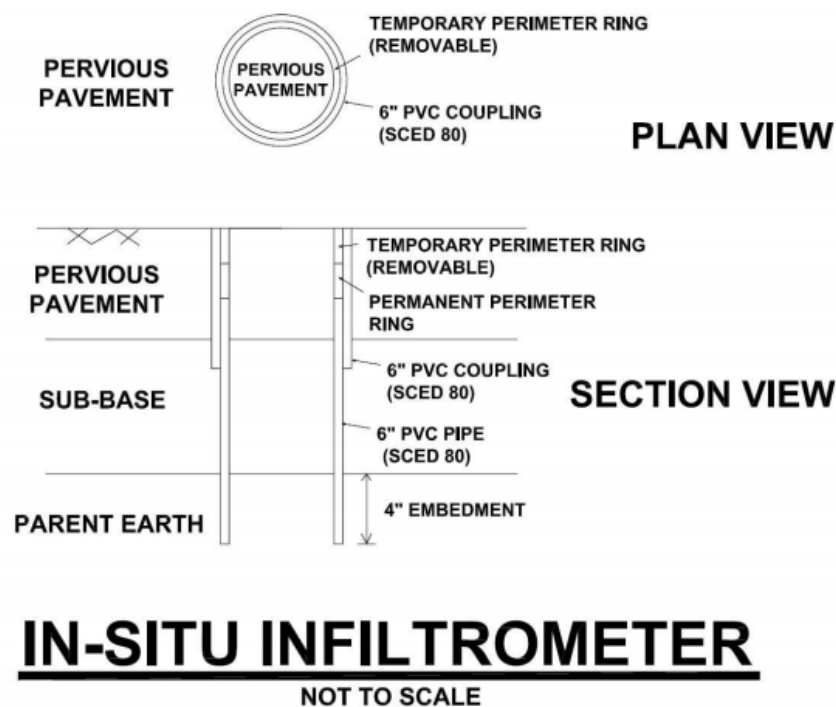
GC.16 The Contractor shall pressure test the two (2) reclaimed water deflections between 77<sup>th</sup> & 79<sup>th</sup> Avenue.

Sunset Beach Parking Lot Improvements (Schedules E-G)

GC.17 The Contractor shall note the experience requirements and qualifications for pervious concrete work.

GC.17 The Ring-Billed Gull parking lot improvements shall commence after July 1, 2017. Work shall not start prior to this date.

GC.18 The insitu infiltrometer shall be constructed per the below detail:



GC.19 Prefomed expansion joint material (1/2") shall be placed at all header curb / non-pervious concrete joints.

GC.20 Concrete curb and pervious concrete joints shall align. This shall be illustrated within the Contractor-provided jointing plan.

GC.21 New signage shall be in accordance with FDOT Design Index No. 11860.

GC.22 The Contractor shall provide a shell sample prior to ordering in order to confirm gradation.

GC.23 The Contractor shall use caution when constructing header curb around / above existing buried utilities.

GC.24 Pervious concrete test panels that do not meet the performance requirements outlined in the specifications shall be demolished and reconstructed at the Contractor's expense.

CITY OF TREASURE ISLAND

December 12, 2017

**Section 00320B  
Bid Proposal Form**

*No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder*

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
<b>IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)</b>				
<b>BID SCHEDULE B (CITY FUNDED ROADWAY IMPROVEMENTS)</b>				
B-S-1	4,300 Square Yards	Mill Existing Asphalt (2")		
		Per Square Yard	\$	\$
B-S-4	470 Tons	Type SP-12.5 Asphalt		
		Per Ton	\$	\$
B-S-5A	1,680 Square Feet	Concrete Sidewalk Construction (4")		
		Per Square Foot	\$	\$
B-S-5	685 Square Feet	Concrete Sidewalk Construction (6")		
		Per Square Foot	\$	\$
B-S-15	325 Linear Feet	FDOT Type "D" Curb		
		Per Linear Foot	\$	\$
B-S-16	0.802 Gross Miles	Thermoplastic Striping, Yellow, 6"		
		Per Gross Mile	\$	\$
B-S-17	0.802 Gross Miles	Thermoplastic Striping, White, 6"		
		Per Gross Mile	\$	\$
B-S-17A	0.030 Gross Miles	Thermoplastic Striping, White, 12"		
		Per Gross Mile	\$	\$
B-S-18	125 Each	Retro-Reflective Pavement Markers (Yellow)		
		Per Each	\$	\$

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Bid Proposal Form**

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ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
B-S-19	60 Square Yards	Patterned Pavement Crosswalk		
		Per Square Yard	\$	\$
<b>SUBTOTAL</b> <b>(SCHEDULE B)</b>				<hr/> <hr/> \$ <hr/>



**Section 00320F  
Bid Proposal Form**

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ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
<b>IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)</b>				
<b>BID SCHEDULE F (TERN LOT - ASPHALT OPTION)</b>				
F-G-1	1 Lump Sum	Mobilization		
		Lump Sum	\$	\$
F-G-2	1 Lump Sum	Maintenance of Traffic		
		Lump Sum	\$	\$
F-G-3	1 Lump Sum	Erosion and Sediment Control		
		Lump Sum	\$	\$
F-PL-1	1 Lump Sum	Demolition / Clearing & Grubbing		
		Lump Sum	\$	\$
F-PL-2	1 Lump Sum	Tree Barricades / Tree Protection / Tree Removal		
		Lump Sum	\$	\$
F-PL-3	1,300 Linear Feet	Header Curb		
		Per Linear Foot	\$	\$
F-PL-4	2,140 Square Yards	Asphalt Parking Lot Construction		
		Per Square Yard	\$	\$
F-PL-5	2,600 Square Feet	Fine Grading (Landscape Bed Preparation)		
		Per Square Foot	\$	\$

**Section 00320F  
Bid Proposal Form**

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ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
F-PL-6	3,250 Square Feet	Shell Gore Area		
		Per Square Foot	\$	\$
F-PL-7	450 Square Feet	Concrete Sidewalk Construction (4")		
		Per Square Foot	\$	\$
F-PL-8	175 Square Feet	Concrete Sidewalk Construction (6")		
		Per Square Foot	\$	\$
F-PL-9	325 Linear Feet	15" RCP		
		Per Linear Foot	\$	\$
F-PL-10	2 Each	FDOT Type "F" Ditch Bottom Inlet		
		Per Each	\$	\$
F-PL-10A	1 Each	FDOT Type "J-8T" Manhole (4' Dia.)		
		Per Each	\$	\$
F-PL-11	56 Each	Recycled Plastic Wheel Stop		
		Per Each	\$	\$
F-PL-12	1 Lump Sum	Signage & Striping		
		Lump Sum	\$	\$
F-M-1	5 Cubic Yard	Excavation, Unsuitable Material		
		Per Cubic Yard	\$	\$
F-M-2	5 Cubic Yard	Excavation, Rock		
		Per Cubic Yard	\$	\$

**Section 00320F  
Bid Proposal Form**

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ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
F-M-3	5 Cubic Yard	Excavation, Muck		
		Per Cubic Yard	\$	\$
<b>SUBTOTAL</b> <b>(SCHEDULE F)</b>		_____		
		_____		\$ _____

**Section 01025A  
Measurement and Payment (City)**

**Part 1 General**

**1.01 Scope of Payment**

*This Section covers pay items associated with City of Treasure Island stormwater, roadway and parking lot improvements. Pinellas County Utilities pay items identified in Section 01025B.*

Payment to the CONTRACTOR will be made for actual quantities and work completed and accepted in accordance with the Contract.

The CONTRACTOR shall accept in compensation provided herein full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete all work included in the Contract; also for all loss or damage arising from the nature of the work, inclement weather, action of the elements or from any unforeseen difficulties which may be encountered during the execution of the work or except as provided herein. The CITY will make no allowances for Items not included in the proposal.

**1.02 Procedure for Measurement**

- A. For lump sum items, payment shall be based on the lump sum prices set forth in the Bid Proposal and based on the amount of completed work.
- B. For field measured unit-price items, payment shall be based on the actual amount of work accepted and the actual amount of materials in place, as will be determined by measurements.

**1.03 Estimated Quantities**

All estimated field measure quantities stipulated in the Bid Proposal or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the WORK and (b) for purpose of comparing the bids submitted for the WORK. The actual amounts of WORK done under field measured unit price items may differ from the estimated quantities. The basis of payment for WORK will be the actual amount of WORK performed and field measured.

Should the quantities of unit price items listed in the original Bid Proposal increase or decrease, the prices for these items must be at the unit price quoted by the CONTRACTOR on his original Bid Proposal.

**1.04 Incidental Work**

All work shown on the plans and referenced in the specifications as being part of the contract for which no separate pay item is provided is considered incidental to the contract. Incidental items are to be incorporated into the pay items provided. Claims for separate payment of incidental items will not be considered.

**1.05 Items Included but Not Specified**

The unit or lump sum prices designated in the Bid Proposal shall include all profit, taxes, labor, overhead, material, equipment, tools, survey staking, utility notification and coordination,

protection of existing utilities, temporary support of existing utilities, shoring, sheeting and slope protection (proprietary and non-proprietary), backfill, dewatering, extra backfill material as required, resetting of mailboxes, irrigation removal and repair, expansion joint material, excavation materials, protection and preservation of existing structures, salvaging of items as shown on the drawings, coordination with City staff, securing a City Building Permit (if needed), project signs (two), the preparation and implementation of a Storm Preparedness Plan and other work incidental thereto and specified in these specifications and on the drawings.

If unsuitable material is found in any location it shall be removed, transported offsite, properly disposed of and replaced (if needed) at no additional cost to the City.

**1.06 Description of Pay Items**

The following describes the measurement of and payment for the work to be done under the respective items listed in the Bid Proposal.

Each field measure unit or lump sum item stated in the Bid Proposal shall constitute full compensation for each items of work completed.

- Mobilization (ITEM A-G-1)**
- Mobilization (ITEM E-G-1)**
- Mobilization (ITEM F-G-1)**
- Mobilization (ITEM G-G-1)**

The work specified under this Section consists of preparatory work and operation in mobilizing to begin work on the project, including but limited to those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site(s), and for the establishment of temporary offices, buildings, safety equipment, project sign and first aid supplies, sanitary and other facilities as required by these specifications, special provisions, and state and local laws and regulations. Mobilization costs shall also include the costs of preconstruction videotaping, coordination with residents throughout the project’s duration, coordination with City representatives throughout the project’s duration, project signs, insurance, bonds, permits (including NPDES & dewatering) and other Contract materials. The contract unit price will be on a lump sum unit price. Partial payments will be allowed as outlined below.

PERCENT OF ORIGINAL CONTRACT AMOUNT EARNED	ALLOWABLE PERCENT OF THE LUMP SUM PRICE FOR MOBILIZATION (*)
5	25
10	50
25	75
100	100

It shall be noted that the Mobilization pay item included in Bid Schedule A covers all work proposed in Bid Schedules B, C & D.

**Maintenance of Traffic (ITEM A-G-2)**  
**Maintenance of Traffic (ITEM E-G-2)**  
**Maintenance of Traffic (ITEM F-G-2)**  
**Maintenance of Traffic (ITEM G-G-2)**

This Section consists of the maintaining vehicular and pedestrian traffic within limits of the project for the duration of the construction period, in accordance with the requirements of FDOT Section 102 of the "Standard Specifications", as amended herein.

The Contractor will not be permitted to close access to residences or places of business. Provisions shall be made to provide access to large trucks for pick-up and delivery of materials during the construction period. The Contractor shall furnish, erect, and maintain all necessary traffic control and safety devices, in accordance with the Florida Department of Transportation "ROADWAY AND TRAFFIC DESIGN STANDARDS", applicable edition, and State of Florida's "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION MAINTENANCE AND UTILITY OPERATIONS", applicable edition, and shall take all necessary precautions for the protection of the work and the safety of the public for duration of the construction period.

A Maintenance of Traffic (MOT) plan shall be submitted to the City, by the Contractor, and approved prior to implementation. This plan shall include all necessary signage and dimensions.

The work specified under this Section shall include the furnishing, erection, and maintenance of all temporary traffic barricades of whatever type required, and for such duration as may be required, and shall include all materials and construction necessary for temporary connections and driveway maintenance. The Contractor will also be responsible for coordinating with adjacent property owners regarding changes and/or alterations to the MOT plan. The Contract unit price for this item will be a lump sum unit price. Partial payments for maintenance of traffic will be limited to the overall percent of the work completed by the Contractor.

The cost for temporary striping shall be included in this pay item.

It shall be noted that the Maintenance of Traffic pay item included in Bid Schedule A covers all work proposed in Bid Schedules B, C & D.

**Erosion & Sediment Control (ITEM A-G-3)**  
**Erosion & Sediment Control (ITEM E-G-3)**  
**Erosion & Sediment Control (ITEM F-G-3)**  
**Erosion & Sediment Control (ITEM G-G-3)**

Price shall include payment for all installation, maintenance, removal, and all other incidentals necessary to provide erosion and sediment control (within the project boundaries) and control turbidity as notated on the plans and as required by any local, state or Federal code, statute or ordinance. Daily debris removal from right of ways, easements and vehicle use areas shall be included in this pay item. This pay item shall also cover all equipment, material and labor required to adhere to the dewatering requirements and conditions stated on the plans. Payment for this item shall be on a lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item. The Contractor shall receive compensation for this item as stipulated in the below table.

PERCENT OF ORIGINAL CONTRACT AMOUNT EARNED	ALLOWABLE PERCENT OF THE LUMP SUM PRICE FOR EROSION AND SEDIMENT CONTROL
5	25
10	50
25	75
100	100

It shall be noted that the Erosion & Sediment Control pay item included in Bid Schedule A covers all work proposed in Bid Schedules B, C & D.

#### **Turbidity Monitoring to Adhere to Permit Conditions (ITEM A-G-4)**

Price shall include payment for turbidity monitoring required throughout the duration of the project as required on the Southwest Florida Water Management District (SWFWMD) permit. The price paid shall be payment in full for the initial sampling, record keeping, sampling at the frequencies required in the permit, revising the work plan if needed to achieve the required turbidity levels, coordination with the SWFWMD as needed, acquisition of a professional sampling company if needed to perform the sampling and all other incidentals needed to complete the work. Payment for this item shall be on a lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item. Partial payments for this task will be limited to the overall percent of the work completed by the Contractor.

This work shall be performed for the northern and southern systems throughout the duration of work identified in Bid Schedules A-D.

- FDOT Type “J-7T” Manhole (4’ Dia.) (ITEM A-DI-1)**
- FDOT Type “D” Ditch Bottom Inlet (ITEM A-DI-2)**
- FDOT Type “F” Ditch Bottom Inlet (ITEM A-DI-3)**
- Trench Drain (Tern Lot) (ITEM A-DI-4)**
- Trench Drain (Ring-Billed Gull Lot) (ITEM A-DI-5)**
- Remove Existing Structure / Plug Outfall Pipes (ITEM A-DI-6)**
- Connect to Existing Structure (ITEM A-DI-7)**
- 8” PVC Drainage Structure (E-PL-12)**
- FDOT Type “F” Ditch Bottom Inlet (ITEM F-PL-10)**
- FDOT Type “J-8T” Manhole (4’ Dia.) (ITEM F-PL-10A)**

The above pay items shall include payment for furnishing and installing stormwater structures. Payment for this item shall include, but not be limited to, the following: acquisition of field dimensions, dewatering, excavation, the removal and proper disposal of existing piping to be replaced and/or shown to be removed in the plans, the disposal of excess material, transportation, sheeting, shoring, slope stabilization, protection / support of existing utilities, bedding material, structure modifications, additional piping as needed to extend existing piping and perform a connection, construction of concrete support and preformed expansion joint material (trench drains), incorporation of sanitary sewer piping, frame and grate adjustments (as necessary), access covers & grating, grouting, sealing, formwork, reinforcement, connection of new/existing piping, connections to existing structures, masonry bulkhead construction, masonry bulkhead demolition, structure opening repairs when pipes are removed, backfilling, backfill material, compaction, grading, testing, protection of work, clean up and any other incidentals required to perform this task.

Payment for this item shall be on a per each stormwater structure furnished and installed basis and shall include all necessary equipment, labor and materials to complete this pay item.

- 12" PVC (ITEM A-DI-8)**
- 15" RCP (ITEM A-DI-9)**
- 18" RCP (ITEM A-DI-10)**
- 6" PVC Drain (ITEM E-PL-11)**
- 15" RCP (ITEM F-PL-9)**

Payment for PVC and reinforced concrete storm piping (sizes stated above) will be paid for at the Contract Unit Price per linear foot for the size pipe installed, based on field measurements. The price paid shall be payment in full for the pipe, gaskets, joint material, external joint wrap, filter fabric, dewatering, all excavation, coffer dam construction, the disposal of excess material, existing pipe removal and disposal, demolition of surfaces and other features as needed to construct the piping, protection of property, transportation, sheeting, bedding material, backfilling, backfill material, grading, compaction, testing, equipment, labor, materials, protection of work, trench safety precautions, concrete collar construction (per FDOT Index No. 280), clean up, resetting of existing fences (wood & chain link), furnishing and installing new posts (wood and metal) if needed to facilitate fence resetting and all other incidentals necessary to complete each item.

The quantity of storm pipe to be paid for shall be based on the laying length of the pipe in linear feet actually placed as measured along the long side of the satisfactorily installed pipe (measured from the outside wall of structures).

All excess material shall be transported offsite at the expense of the Contractor.

Pay Items E-PL-11 (6" PVC Drain) and F-PL-9 (15" RCP) shall include the connection to existing structure shown on the plans.

### **8" Ductile Iron Sanitary Sewer Removal & Replacement (ITEM A-UT-1)**

Payment for the removal & replacement of ductile iron sanitary sewer (gravity) shall be made at the Contract Unit Price per linear foot and shall include payment for furnishing and installing sanitary sewer piping as specified in the Drawings. Payment for this item shall include, but not be limited to, the following: resident coordination, bypassing of sewage flows, field layout of the sanitary sewer alignment, excavation, dewatering, preparation and placement of bedding material, slope stabilization, sheeting, shoring, protection of existing utilities, installation of ductile iron sanitary sewer main including all gaskets and required appurtenances, performance testing, backfill, compaction of backfill, grading, compaction testing and shall include all necessary equipment, labor and materials to complete this pay item.

Mains routed through conflict structures shall be ductile iron.

### **Sanitary Lateral Conflict Structure (4' Diameter Brick) (w/10 LF of 4"/6" DIP) (ITEM A-UT-2)**

Payment for sanitary conflict structures will be paid for at the Contract Unit Price bid per each structure installed. The price paid shall be payment in full for the structure, dewatering, all excavation, the disposal of excess material, transportation, sheeting, bedding material, bedding preparation, structure construction, backfill, compaction, testing, structure modifications,



furnishing and installing new ductile iron piping (4"/6") (10 LF), connection of existing piping, frame and grate adjustments (as necessary), covers, grouting, sealing, formwork, reinforcement, incorporation of sanitary sewer piping, equipment, labor, protection of work, clean up and all other incidentals necessary to complete these items.

Measurement for payment will be the actual number of each type of sanitary main conflict structures installed and accepted. Laterals routed through conflict structures shall be ductile iron.

No direct payment will be made for the removal or plugging of existing structures.

### **Sanitary Lateral Removal & Replacement (4"/6" PVC) (ITEM A-UT-3)**

Payment for the relocation of sanitary laterals shall be made at the Contract Unit Price per linear foot of lateral relocated. The price paid shall be payment in full for all labor, equipment and materials necessary to relocate sanitary laterals, as needed, in order to facilitate storm drain installation and/or roadway reconstruction. This item shall include all survey staking, utility & homeowner coordination, excavation, disposal of excess material, dewatering, sheeting, trench stabilization, protection of existing utilities, installation of sanitary lateral piping to avoid conflicts (as needed), fittings, appurtenances, adaptors, removal and disposal of conflicting sanitary laterals, temporary plugs, connections to existing laterals, backfill and all other incidental items required to relocate the sanitary laterals (as needed).

The sizes of existing sanitary laterals are unknown. The Contractor shall replace adjusted laterals size in-kind (4" to 6" anticipated).

Laterals routed through conflict structures shall not be paid using this pay item.

### **Mill Existing Asphalt (2") (ITEM A-S-1) Mill Existing Asphalt (2") (ITEM B-S-1)**

Payment for milling existing asphalt shall be paid for at the unit price per square yard which price will be full compensation for removal (milling) of existing asphaltic concrete wearing surface (as shown on the Plans) to the depth of 2", survey, leveling, dewatering, transportation, testing, labor, equipment, and other incidentals necessary to complete this item.

The Contractor shall take ownership of all millings.

### **Roadway Reconstruction (Excluding Asphalt) (ITEM A-S-2)**

Payment for roadway reconstruction shall be paid for a per square yard of roadway reconstructed basis and shall include all labor, equipment and materials required to perform the work. Payment shall include, but not be limited to, the following: demolition of existing roadway, protection of adjacent roadway sections proposed to remain, restoration of adjacent roadway sections proposed to remain but damaged by the Contractor, disposal of demolished roadway material, protection of property, excavation, dewatering, rough grading, preparation of subgrade, furnishing and installing base material as identified in the plans, fine grading, compaction, testing and any other incidentals required to complete the work.

It shall be noted that asphalt for segments of reconstructed roadway shall be paid for in a separate pay item.

**Roadway Restoration (Excluding Asphalt) (ITEM A-S-3)**  
**Asphalt Driveway / Parkway Restoration (ITEM A-S-6)**  
**Asphalt Driveway / Parkway Restoration (ITEM C-PW-3)**  
**Asphalt Driveway / Parkway Restoration (ITEM D-RW-9)**

Payment for the restoration of asphalt roadways and parkways shall be made on a per square yard restored basis and shall include all necessary equipment, materials and labor required to complete this item. Work activities to be covered under this pay item shall include, but not be limited to, the following: saw cutting of asphalt, furnishing fill, subgrade and base material, placement of fill, subgrade and base material per the specifications, compaction of fill, subgrade, and base in accordance with the specifications, stabilization of subgrade, grading as needed to restore preconstruction stormwater flow patterns and match existing pavement elevations, testing and all incidental items required to complete this pay item.

It shall be noted that asphalt for segments of restored roadway under Pay Item A-S-3 shall be paid for in a separate pay item.

It shall be noted that asphalt for segments of restored driveway / parkway shall be paid for in this pay item. The application of prime and tack coats and furnishing and placing asphalt are components of Pay Item A-S-6.

**Type SP-12.5 Asphalt (ITEM A-S-4)**  
**Type SP-12.5 Asphalt (ITEM B-S-4)**

Payment for FDOT Type SP-12.5 asphalt shall be paid for at the unit price per ton of asphalt furnished and installed which price will be full compensation for placement and compaction of 2" of asphaltic concrete wearing surface, prime coat, bituminous tack coat material, dewatering, transportation, compaction, testing, labor, equipment, and other incidentals necessary to complete this item.

**Concrete Sidewalk Restoration (6") (ITEM A-S-5)**  
**Concrete Driveway Restoration (ITEM A-S-8)**  
**Concrete Sidewalk Construction (4") (ITEM B-S-5A)**  
**Concrete Sidewalk Construction (6") (ITEM B-S-5)**  
**Concrete Driveway Restoration (ITEM C-PW-4)**  
**Concrete Driveway Restoration (ITEM D-RW-10)**  
**Concrete Sidewalk Construction (4") (ITEM E-PL-9)**  
**Concrete Sidewalk Construction (6") (ITEM E-PL-10)**  
**Concrete Sidewalk Construction (4") (ITEM F-PL-7)**  
**Concrete Sidewalk Construction (6") (ITEM F-PL-8)**

Payment for concrete driveways and sidewalks of the thickness specified (sidewalk varies; driveways 6") will be paid for at the Contract Unit Price per square foot, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing driveways and sidewalks (saw cut), dewatering, grading, formwork, reinforcement, curing the concrete, detectable warning surface installations where shown on the plans, providing protection against rain and cold weather, removing forms, compaction, furnishing and placement of all driveway and sidewalk materials, transportation, equipment, labor, jointing, reinforcement, finishing, material testing and all other incidentals necessary to complete this item.

Expansion joint material, where called for on the plans or required, shall be included in this pay item.

**Shell Driveway / Parkway Restoration (ITEM A-S-7)**  
**Shell Driveway / Parkway Restoration (ITEM C-PW-6)**  
**Shell Driveway / Parkway Restoration (ITEM D-RW-12)**  
**Shell Gore Area (ITEM E-PL-8)**  
**Shell Gore Area (ITEM F-PL-6)**  
**Shell Gore Area (ITEM G-PL-8)**

Payment for shell parkway restoration (of a thickness matching the existing thickness plus 2") and shell gore area construction (4") will be paid for at the Contract unit price per square foot of shell parkway restored, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing driveway materials, field confirmation of shell depth, dewatering, grading, furnishing and placement of shell materials of a quality matching the existing material (if salvaging is not feasible), placement of woven filter fabric, transportation, equipment, labor, subgrade stabilization, compaction, jointing, finishing, material testing and all other incidentals necessary to complete this item.

**Brick / Paver Driveway Restoration (ITEM A-S-9)**  
**Brick / Paver Driveway Restoration (ITEM C-PW-5)**  
**Brick / Paver Driveway Restoration (ITEM D-RW-11)**

Payment for the restoration of brick/paver driveways of the thickness observed in the field will be paid for at the Contract unit price per square foot, based on field measurements. The price paid shall be payment in full for the removal, storage (of materials to be reused) and disposal of existing driveway materials, protection of removed bricks and/or pavers, dewatering, grading, furnishing and placement of all driveway materials, transportation, equipment, labor, subgrade stabilization, compaction, jointing, finishing, material testing and all other incidentals necessary to complete this item.

**Gravel/Pebble Driveway / Parkway Restoration (ITEM A-S-10)**  
**Gravel/Pebble Driveway / Parkway Restoration (ITEM C-PW-7)**  
**Gravel/Pebble Driveway / Parkway Restoration (ITEM D-RW-13)**

Payment for gravel/pebble parkways / driveways of the thickness specified will be paid for at the Contract unit price per square foot, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing driveway materials, dewatering, grading, furnishing and placement of all driveway materials, placement of woven filter fabric, transportation, equipment, labor, subgrade stabilization, compaction, jointing, finishing, material testing and all other incidentals necessary to complete this item.

It shall be noted that this pay item shall not be used when gravel /pebble restoration is a component of a landscaping bed.

**Reset Street Signage (ITEM A-S-11)**

The work specified under this Section consists of the resetting of existing traffic control signs that are necessary for the installation of the proposed drainage. The costs also include the costs of temporary storage and /or relocation of the traffic control signs. Payment for the replacement of items deemed damaged or unusable by the CITY will be included in the cost of

relocating and resetting traffic control signs. The contract unit price will be on a lump sum basis.

**Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping (ITEM A-S-12)**

**Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping (ITEM C-PW-8)**

**Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping (ITEM D-RW-14)**

The above pay items shall include payment for the replacement of removed landscaping including trees, shrubs, plantings and ground cover and the protection of landscaping shown to remain. Payment for this item shall include, but not be limited to, the following: removal of landscaping, temporary stabilization of bare earth, temporary support of trees, furnishing and installing replacement landscaping, protection of existing landscaping any other incidentals required to perform this task. Payment for this item shall be on lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item.

**Restore Incidental Parkway Items (ITEM A-S-13)**

The above pay item shall include payment for the replacement, temporary stockpiling and restoration of parkway features present at the time of construction but not specifically quantified in a pay item (decorative concrete paver stones, decorative boulders/rocks, public art displays, etc.). Payment for this item shall be on lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item.

The adjustment of two (2) sanitary manhole ring and covers, to match the new grades, shall also be a component of this pay item.

**Sodding (Match Existing) (ITEM A-S-14)**

**Sodding (Match Existing) (ITEM C-PW-9)**

**Sodding (Match Existing) (ITEM D-RW-15)**

Payment for sod (match existing) will include furnishing all equipment, labor and materials to replace sod damaged or removed during construction activities, including rolling sod, erosion protection, and watering until final acceptance by the Engineer. Sod installation shall be accordance with the specifications. The Contractor shall only receive compensation for sod placed within the project area. Payment will be per square foot of sod replaced and shall include all other incidental items required to successfully complete this pay item, including watering.

**Excavation, Unsuitable Material (ITEM A-M-1)**

**Excavation, Rock (ITEM A-M-2)**

**Excavation, Muck (ITEM A-M-3)**

**Excavation, Unsuitable Material (ITEM E-M-1)**

**Excavation, Rock (ITEM E-M-2)**

**Excavation, Muck (ITEM E-M-3)**

**Excavation, Unsuitable Material (ITEM F-M-1)**

**Excavation, Rock (ITEM F-M-2)**

**Excavation, Muck (ITEM F-M-3)**

**Excavation, Unsuitable Material (ITEM G-M-1)**

**Excavation, Rock (ITEM G-M-2)**

### **Excavation, Muck (ITEM G-M-3)**

Payment for the work involved under these pay items shall be paid for on a per cubic yard price, which payment will be full compensation for all labor, materials, fittings, appurtenances, and equipment necessary to install the work elements which include the following: testing to determine quality of material proposed to be removed, coordination with City officials, removal and disposal of material, replacement of with suitable material, compaction of suitable material as required in the Specifications, compaction testing as required in the Specifications and grading, as necessary, to restore all surficial drainage features.

### **FDOT Type "D" Curb (ITEM B-S-15)**

**Header Curb (ITEM E-PL-3)**

**Header Curb (ITEM F-PL-3)**

**Header Curb (ITEM G-PL-3)**

Payment for FDOT Type "D" Concrete Curb and header curb will be paid for at the Contract Unit Price per linear foot, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing curbs, dewatering, grading, furnishing and placing of all curb materials, transportation, equipment, labor, subgrade stabilization, compaction, formwork, transitions, reinforcement, jointing, finishing, providing protection against rain and cold weather, material testing, protection of work and all other incidentals necessary to complete these items.

The quantity of concrete curb to be paid for shall be determined from field measurements of the amount satisfactorily constructed, measured in linear feet along the front face of the curb.

Expansion joint material, where called for on the plans or required, shall be included in this pay item.

No direct payment will be made for the removal and disposal of existing curb and gutter. Payment for curb transitions shall be provided under FDOT Type "D" curb.

### **Thermoplastic Striping, Yellow, 6" (ITEM B-S-16)**

**Thermoplastic Striping, White, 6" (ITEM B-S-17)**

**Thermoplastic Striping, White, 12" (ITEM B-S-17A)**

Payment for thermoplastic striping will be paid for at the contract unit price per gross mile as measured in the field (excluding unmarked gaps at intersections). Payment shall include, but not be limited to, the following: cleaning and preparation of surface, furnishing materials, application, curing, protection of traffic and all incidentals required to complete the work.

Thermoplastic striping shall be furnished and installed in accordance with FDOT Specification Section 711.

### **Retro-Reflective Pavement Markers (Yellow) (ITEM B-S-18)**

Payment for RRPMs will be paid for at the contract unit price per each RRPM installed basis. Payment shall include, but not be limited to, the following: field measurements and layout, cleaning and preparation of surface, furnishing materials, application, curing, protection of traffic and all incidentals required to complete the work.

RRPMs shall be furnished and installed in accordance with FDOT Specification Section 706.

### **Patterned Pavement Crosswalk (ITEM B-S-19)**

Payment for patterned pavement crosswalks, suitable for vehicular applications, shall be paid for at the contract unit price per square yard as measured in the field. Crosswalks shall be reconstructed at their pre-construction location and at their pre-construction dimensions. Patterned pavement shall be brick red and the pattern shall consist of a brick border and herringbone brick interior. Payment shall include, but not limited to, the following: selection of product from FDOT's Approved Products List (APL), submission of color and pattern sample to City for approval (via shop drawing), recording of crosswalk locations and dimensions prior to demolition, preparation of surface, installation in accordance with the below-referenced specification, supplemental Maintenance of Traffic as needed to protect the surface per the below-referenced specification's requirements, corrections where deficiencies are found, submission of certification that patterned pavement was installed correctly and all other incidentals required to install the product per the below-referenced specification and manufacturer requirements.

All work performed under this pay item shall be governed by FDOT Specification Section 523.

### **Demolition / Clearing & Grubbing (ITEM E-PL-1)**

### **Demolition / Clearing & Grubbing (ITEM F-PL-1)**

### **Demolition / Clearing & Grubbing (ITEM G-PL-1)**

Payment for demolition of the existing parking lots and clearing and grubbing shall be provided on a lump sum basis and shall include all necessary labor, equipment and material to perform the work. Payment shall include, but not be limited to, the following: removal of existing structures, protection of property and newly constructed features, removal of existing fencing, removal of existing piping (including exfiltration trench and media envelope), concrete surface demolition, existing parking lot demolition to the depth shown on the plans, protective barrier installation to protect dune vegetation, salvaging of existing signage, protection of wooden bollards, dewatering, excavation, sheeting, shoring, disposal of all demolished material, transportation and any incidentals required to complete the work.

### **Tree Barricades / Tree Protection / Tree Removal (ITEM E-PL-2)**

### **Tree Barricades / Tree Protection / Tree Removal (ITEM F-PL-2)**

### **Tree Barricades / Tree Protection / Tree Removal (ITEM G-PL-2)**

Payment for tree-related activities shall be provided on a lump sum basis. Payment shall include, but not be limited to, the following: erection and maintenance of tree barricades, protection of trees throughout construction, removal of trees where identified or needed to construction the proposed improvements, disposal of removed trees, removal of tree barricades and any incidentals required to complete the work.

### **Parking Lot Subgrade Preparation (ITEM E-PL-4)**

### **Parking Lot Subgrade Preparation (ITEM G-PL-4)**

Payment for pervious concrete parking lot subgrade preparation shall be provided on a per square foot of parking lot subgrade prepared basis. Payment shall include, but not be limited to, the following: rough grading of insitu soils, scarifying of existing soils, compaction of existing soils, importing of additional material as needed, dewatering, excavation, protection of property, testing any incidentals required to complete the work.

**FDOT No. 57 Stone Base (ITEM E-PL-5)**  
**FDOT No. 57 Stone Base (ITEM G-PL-5)**

Payment for FDOT No. 57 stone base beneath pervious concrete parking lots shall be provided on a per cubic yard of stone base furnished, installed and prepared basis. Payment shall include, but not be limited to, the following: placement of geotextile fabric, furnishing and installing rock base, overlapping of geotextile fabric, dewatering, excavation, protection of property, testing, fine grading any incidentals required to complete the work.

**Pervious Concrete (ITEM E-PL-6)**  
**Pervious Concrete (ITEM G-PL-6)**

Payment for pervious concrete shall be provided on a per square foot of pervious concrete furnished at the plan-defined thickness, installed and accepted basis. Payment shall include, but not be limited to, the following: surface preparation, mix design preparation, confirmation of qualifications, providing the required supervision, test panel construction, forming, placement of concrete, infiltrometer placement, finishing, compaction, jointing, curing per the specification requirements, testing, dewatering, traffic management and any incidentals required to complete the work.

**Asphalt Parking Lot Construction (ITEM F-PL-4)**

Payment for the construction of asphalt parking lots shall be made on a per square yard of parking lot constructed basis and shall include all necessary equipment, materials and labor required to complete this item. Work activities to be covered under this pay item shall include, but not be limited to, the following: removal of excess material, furnishing fill, subgrade and base material, placement of fill, subgrade and base material per the roadway specifications, compaction of fill, subgrade, and base in accordance with the roadway specifications, stabilization of subgrade, grading as needed to achieve proposed stormwater flow patterns, application of prime and tack coats, placement of asphalt, compaction, testing and all incidental items required to complete this pay item.

**Fine Grading (Landscape Bed Preparation) (ITEM E-PL-7)**  
**Fine Grading (Landscape Bed Preparation) (ITEM F-PL-5)**  
**Fine Grading (Landscape Bed Preparation) (ITEM G-PL-7)**

Payment for fine grading associated with landscape beds shall be provided on a per square foot of area graded basis. Payment shall include but, but not be limited to, the following: grading to achieve plan elevations, protection of newly constructed features, topsoil placement, dewatering, excavation, moderate compaction, testing and all incidental items required to complete this pay item.

**Recycled Plastic Wheel Stop (ITEM E-PL-13)**  
**Recycled Plastic Wheel Stop (ITEM F-PL-11)**  
**Recycled Plastic Wheel Stop (ITEM G-PL-9)**

Payment for constructing recycled plastic wheels stops, dimensionally similar to the wheel stops depicted within FDOT Index No. 300, shall be provided on a per each wheel stop furnished and installed basis. Payment shall include, but not be limited to, the following: furnishing recycled

plastic wheels stops, securing wheels stops to surface and all other incidentals necessary to complete this item.

**Signage & Striping (ITEM E-PL-14)**

**Signage & Striping (ITEM F-PL-12)**

**Signage & Striping (ITEM G-PL-10)**

Payment for constructing signage and striping, as shown on the plans, shall be provided on a lump sum basis. Payment shall include, but not be limited to, the following: construction of painted (pervious concrete) / thermoplastic (asphalt) striping where shown on the plans, signage construction as shown on the plans, construction of reflective markings on sign posts and all other incidentals necessary to complete this item.

**End of Section**



**Section 01025B  
Measurement and Payment (County)**

**Part 1 General**

**1.01 Scope of Payment**

*This Section covers pay items associated with Pinellas County Utilities (Potable & Reclaimed Water). Restoration-related pay items associated with Pinellas County work are identified in Section 01025A.*

Payment to the CONTRACTOR will be made for actual quantities and work completed and accepted in accordance with the Contract.

The CONTRACTOR shall accept in compensation provided herein full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete all work included in the Contract; also for all loss or damage arising from the nature of the work, inclement weather, action of the elements or from any unforeseen difficulties which may be encountered during the execution of the work or except as provided herein. The CITY will make no allowances for Items not included in the proposal.

**1.02 Procedure for Measurement**

- A. For lump sum items, payment shall be based on the lump sum prices set forth in the Bid Proposal and based on the amount of completed work.
- B. For field measured unit-price items, payment shall be based on the actual amount of work accepted and the actual amount of materials in place, as will be determined by measurements.

**1.03 Estimated Quantities**

All estimated field measure quantities stipulated in the Bid Proposal or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the WORK and (b) for purpose of comparing the bids submitted for the WORK. The actual amounts of WORK done under field measured unit price items may differ from the estimated quantities. The basis of payment for WORK will be the actual amount of WORK performed and field measured.

Should the quantities of unit price items listed in the original Bid Proposal increase or decrease, the prices for these items must be at the unit price quoted by the CONTRACTOR on his original Bid Proposal.

**1.04 Incidental Work**

All work shown on the plans and referenced in the specifications as being part of the contract for which no separate pay item is provided is considered incidental to the contract. Incidental items are to be incorporated into the pay items provided. Claims for separate payment of incidental items will not be considered.

### 1.05 Items Included but Not Specified

The unit or lump sum prices designated in the Bid Proposal shall include all profit, taxes, labor, overhead, material, equipment, tools, survey staking, utility notification and coordination, protection of existing utilities, temporary support of existing utilities, shoring, sheeting and slope protection (proprietary and non-proprietary), backfill, dewatering, extra backfill material as required, resetting of mailboxes, irrigation removal and repair, expansion joint material, excavation materials, protection and preservation of existing structures, salvaging of items as shown on the drawings, coordination with City staff, securing a City Building Permit (if needed) and other work incidental thereto and specified in these specifications and on the drawings.

If unsuitable material is found in any location it shall be removed, transported offsite, properly disposed of and replaced (if needed) at no additional cost to the City.

### 1.06 Description of Pay Items

The following describes the measurement of and payment for the work to be done under the respective items listed in the Bid Proposal.

Each field measure unit or lump sum item stated in the Bid Proposal shall constitute full compensation for each items of work completed.

### SERVICE CONNECTIONS

Description: This work consists of installing/adjusting long side service connections for potable and reclaimed water mains in order to avoid conflict with proposed stormwater improvements. Required service casings shall be included in the service pay item. The construction of new 1" service connections shall be made with a CC threaded corporation stop mounted on a service saddle. The unit price shall include installing saddles, corporation stops, ball corporations and pack-joint couplings; color coded water service tubing (potable and reclaimed), HDPE or SCH 80 service casing by directional bore (long side services only), color coded tracer wire, tubing inserts, brass nipples, brass bushings, SCH 80 plugs; connections to existing potable and reclaimed water services, exploratory excavation, existing service removal, excavation, backfill, bracing, sheeting, shoring, dewatering, clearing, grubbing, stripping, and trenching; launching pits and receiving pits; bedding and backfill; disposal of spoil; surface grading, pressure testing, offline disinfection, flushing and cleaning and all other related and incidental materials, work and equipment required to construct a complete, operable potable or reclaimed service assembly as shown in the plan details. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>

It shall be noted that service adjustment pay items shall be utilized when a new tapping saddle is not installed and newly installed service tubing is connected to the existing service on either end (outside of the paved roadway's limits). New service pay items shall be utilized when a new tapping saddle is installed and newly installed service tubing is connected to the existing service on one end (outside of the paved roadway's limits).

Payment will not be provided for existing services that are able to be physically altered (horizontally or vertically) to allow for the stormwater improvements to be installed.

Measurement: The quantity of service connections adjusted to be paid for under this item shall be the linear footage (LF) of service in place, tested, accepted and placed into service.

The quantity of newly constructed service connections paid for under this item shall be made per each (EA) service in place, tested, accepted and placed into service.

Payment shall be made under:

ITEM D-RW-1	Adjust Reclaimed Water Service (1") Per LF
ITEM D-RW-2	Construct New Reclaimed Water Service (1") (Long Side) Per EA
ITEM C-PW-1	Adjust Potable Water Service (1") Per LF
ITEM C-PW-2	Construct New Potable Water Service (1") (Long Side) Per EA

**PIPE – RECLAIMED WATER (ADJUSTMENT ASSEMBLY)**

Description: This work consists of furnishing all labor, equipment, and materials and adjusting reclaimed water pipe that would otherwise be in conflict with new construction, as determined by the plans or as directed by the Engineer.

The unit price shall include all costs necessary to adjust reclaimed water pipes including: survey layout and "as-built" drawing preparation, advanced dig up and verification of potable and reclaimed water main locations (horizontal and vertical), advance written notification of shutdown to all affected customers, coordination and scheduling of valve operation by the County for shutdown, protection of property, protection / support of existing utilities, mailboxes and service connections; materials, dewatering, pavement cutting, extra pipe fitting material, shoring and sheeting, bracing; clearing; grubbing and stripping of the right-of-way; trenching including exploratory excavation; bedding and backfilling (including roadway base material when work is done outside of plan-defined roadway restoration and roadway reconstruction limits); thrust restraint of existing pipes by constructing reverse deadmen at connection points (2 per assembly); cutting and plugging existing pipes, furnish and installation of solid sleeves at connection to existing mains (including glandular joint restraints), construction of four (4) 45-degree bends (including glandular restraints), construction of fifty (50) horizontal linear feet of pipe (including glandular restraints); flushing, pigging and cleaning, tracing wire and tracing wire testing, polyethylene encasement and any other operations required to make a complete connection on both sides of the adjustment. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Where connections are made to existing HDPE mains, costs for furnishing and installing a fused mechanical joint adaptor and stainless steel stiffeners shall be included in this pay item.

All new pipes shall be restrained as called for in the plans and plan details. No payment will be made under this Pay Item when a section of pipe is installed beginning at a tapping sleeve and valve or when adjustment is part of new pressure pipe construction.

Payment for pipe length (in excess of the 50 LF included in this pay item), valves, fittings (in excess of the four (4) 45-degree deflections and two (2) solid sleeves) and restrained joints (in excess of the glandular restraints required for four (4) 45-degree fittings, two (2) solid sleeves and 50 LF of pipe) will be made under separate Pay Items.

Measurement: Measurement for payment for adjusting pipeline segments shall be made on a per each (EA) basis for each adjustment performed.

Payment shall be made under:

ITEM D-RW-3	4" Ductile Iron Reclaimed Water Main Adjustment Assembly Per EA
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### **PIPE – RECLAIMED WATER**

Description: This work consists of furnishing all labor, equipment, and materials and installing reclaimed water pipe by the open-cut method in accordance with the specifications.

The unit price shall include all costs necessary to adjust reclaimed water pipes including: survey layout and "as-built" drawing preparation, protection of property, protection / support of existing utilities, mailboxes and service connections; materials, dewatering, pavement cutting, extra pipe fitting material, shoring and sheeting, bracing; clearing; grubbing and stripping of the right-of-way; trenching including exploratory excavation; bedding and backfilling (including roadway base material when work is done outside of plan-defined roadway restoration and roadway reconstruction limits); pressure testing, flushing, pigging and cleaning, tracing wire and tracing wire testing, polyethylene encasement and any other operations required to make a complete installation. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Payment will only be provided under this pay item when deflection linear footages are greater than fifty (50) linear feet. For example, if an adjustment totaled 75 linear feet, only 25 linear feet would be billed under this pay item. If an adjustment totaled 45 linear feet, no quantities would be billed under this pay item.

Measurement: Measurement for payment for furnishing and installing pipe shall be made on a per linear foot (LF) basis as measured horizontally above the pipe centerline through valves and fittings for all pipe.

Payment shall be made under:

ITEM D-RW-4	4" Ductile Iron Reclaimed Water Main Installation Per LF
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### **PIPE – RESTRAINED JOINTS**

Description: This work consists of furnishing and installing restrained joints for pipe, fittings, and valves, will include all labor and materials to furnish and install mechanical joint retainer glands, lock slip joint gaskets, or other approved harnessed joints. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Measurement: Measurement for payment for restraining mechanical or slip joints shall be made on a per each (EA) joint restrained basis (in excess of the restraints included in the “adjust” pay items). Restrained joint pipe pay limits shall not exceed the values shown in the restrained joint table.

Payment shall be made under:

ITEM D-RW-5	4” Restrained Joints Per EA
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## **PIPE – FITTINGS**

Description: This work consists of furnishing all labor, equipment and materials for installing ductile iron fittings not included in other items. The unit price includes furnishing and installing all fittings and materials above or below ground along the pipeline alignment; joints and jointing materials; bracing, shoring, and sheeting; dewatering, clearing, grubbing, and stripping; trenching, bedding and backfill; disposal of spoil, color coded polyethylene encasement and all other related and necessary materials, work and equipment required to construct a complete and operational pipeline. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Measurement: Measurement for payment for ductile iron fittings shall be made on a per ton (TON) of fittings installed basis (in excess of the fittings included in the “adjust” pay items). Weight shall not include the associated gaskets and jointing material. Weights for C153 fittings will be the basis of weight for each fitting.

Payment shall be made under:

ITEM D-RW-6	Ductile Iron Fittings (C153) Per TON
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## **PIPE – VALVES**

Description: This work consists of furnishing all labor, equipment and materials for installing valves not included in other items. The unit price includes furnishing and installing valves, valve box and covers, color coded polyethylene encasement, tracer wire access, filter fabric, valve identification tags, paint reference stripe on curb/roadway, painting of valve cover, concrete valve box pad, extension stems, and incidental construction associated with these items. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Measurement: Measurement for payment for valves shall be made on a per each (EA) valve installed basis.

Payment shall be made under:

ITEM D-RW-7	4” Gate Valve Per EA
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## **PIPE REMOVAL – RECLAIMED WATER**

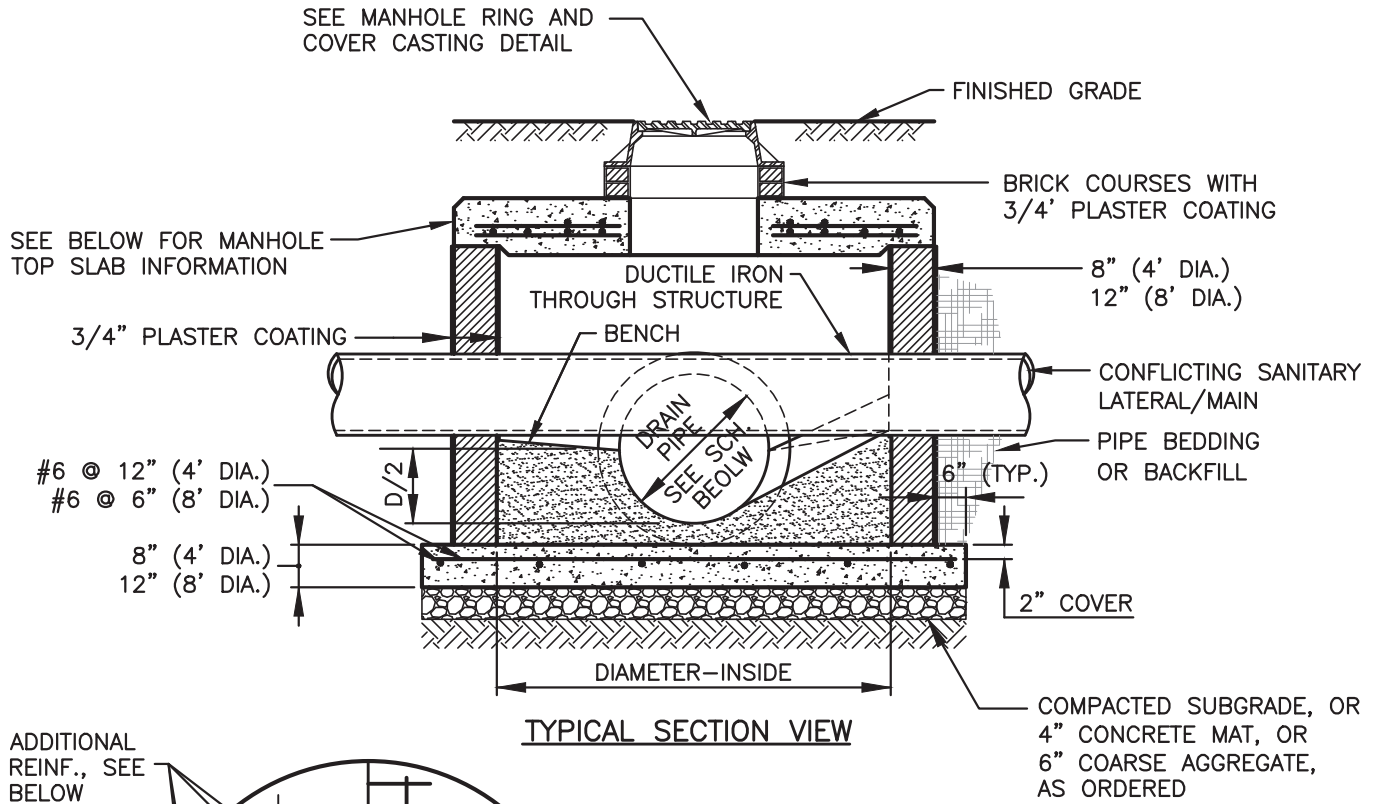
Description: This work consists of furnishing all labor and equipment to remove and dispose of out of service mains. The pipe removed becomes property of the Contractor. The unit price shall include all costs necessary to remove the pipe (including fittings, hydrants, reverse deadmen, etc.) including pavement cutting, trenching, replacement of base material, dewatering, sheeting and shoring, bracing, protection of property, backfilling and temporary restoration of surfaces.

Measurement: Measurement for payment for removing pipe shall be made on a per linear foot (LF) of pipe removed basis as measured horizontally above the pipe centerline through valves and fittings that were removed from service.

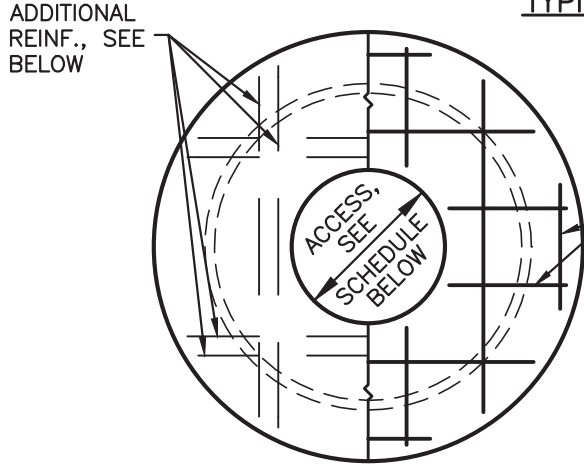
Payment shall be made under:

ITEM D-RW-8	Remove 4" Pipe Per LF
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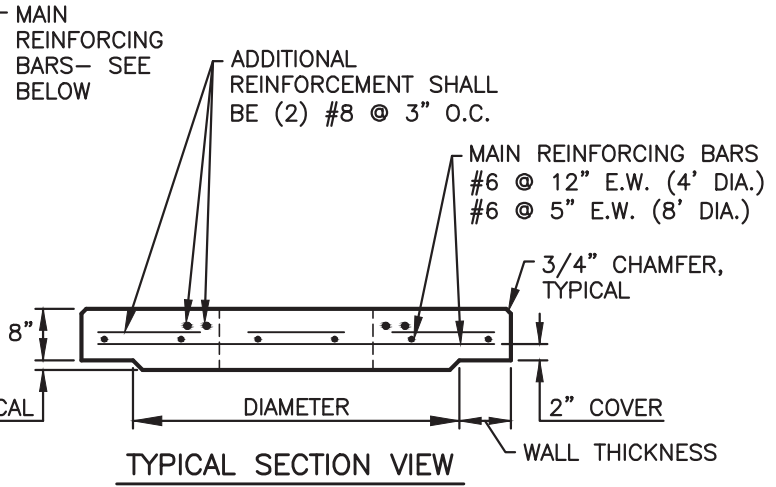
**End of Section**



TYPICAL SECTION VIEW



PLAN VIEW



TYPICAL SECTION VIEW

**NOTES:**

- PROVIDE MINIMUM 8" SOLID WALL BETWEEN ALL OPENINGS FOR PIPES. SEAL BETWEEN PIPE AND STRUCTURE WITH NON SHRINK GROUT.
- ALL BRICK SHALL BE CONCRETE OR CLAY BRICK AND SHALL HAVE A MINIMUM 3/4" CEMENT PLASTER COATING ON ALL SURFACES.
- BENCH SHALL SLOPE @ 1:12 MINIMUM.
- ALL EXPOSED EDGES TO HAVE 3/4" CHAMFER.
- ALL REINFORCING STEEL SHALL HAVE A MINIMUM 2" CONCRETE COVER.
- A PROTECTIVE COATING SHALL BE APPLIED TO THE INSIDE AND OUTSIDE SURFACES DRAINAGE STRUCTURES. THE PROTECTIVE COATING SHALL COVER THE COMPLETE EXTERIOR AND INTERIOR SURFACE OF THE STRUCTURE (INCLUDING CONE SECTIONS, RISERS, AND INVERT) FROM THE BOTTOM SLAB TO THE GROUND SURFACE EXCLUDING THE COVER CASTING, LID, AND THE HORIZONTAL PLANE OF THE PIPE PENETRATIONS OR CUT OPENINGS. THE UNDERSIDE OF THE BOTTOM SLAB MAY ALSO BE EXCLUDED AT THE CONTRACTOR'S OPTION. THE PROTECTIVE COATING SHALL BE ONE COAT OF COAL TAR EPOXY, KOP-COAT BITUMASTIC 300-M OR APPROVED EQUAL. THE DRY 9 MILS IN THICKNESS.
- CONCRETE BRICK SHALL BE USED FOR ALL CONFLICT STRUCTURES. BRICK SHALL MEASURE 3 5/8" x 7 5/8" x 2 1/4" AND CONFORM TO ASTM C55, GRADE N-II OR S-II.

**ADVANCED**  
ENGINEERING & DESIGN, INC.  
CIVIL • MUNICIPAL • SITE DESIGN • PERMITTING • PLANNING  
3931 68TH AVENUE NORTH • PINELLAS PARK, FL 33781 • Phone: 727.526.9158 • Fax: 727.527.9683 • www.aed-fl.com

**CITY OF TREASURE ISLAND**  
IMPLEMENTATION OF BMPs WITHIN  
THE CITY OF TREASURE ISLAND WATERSHED (PH. VI)  
SANITARY LATERAL CONFLICT STRUCTURE

SCALE:	NOT TO SCALE
DATE:	12/12/17
PROJECT NO.	16.TI-65

User: [torres] Date: [Apr 27, 2012] Time: [10:55am] File Location: [\\VED-SEVERE\usinfo\CADD\Municipal Clients\Treasure Island\06.TI-22 (Areas 2, 3 and 4 Storm Improvements)\cadd\Current\TI-22\_A01-1.dwg]