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### Solicitation Addendum

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<b>Addendum No.:</b>	2
<b>Solicitation No.:</b>	18-TA002587DC
<b>Solicitation Title:</b>	Force Main 11 Replacement
<b>Addendum Date:</b>	November 22, 2017
<b>Procurement Contact:</b>	Deborah Carey-Reed

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INVITATION FOR BID (IFB) 18-TA002587DC IS AMENDED AS SET FORTH HEREIN. RESPONSES TO QUESTIONS POSED BY PROSPECTIVE BIDDERS ARE PROVIDED BELOW. THIS ADDENDUM IS HEREBY INCORPORATED IN AND MADE A PART OF IFB 18-TA002587DC.

**Change to:**

**BID OPENING TIME AND DATE DUE:**

BID OPENING TIME AND DATE DUE: 3:00 P.M., December 14, 2017.

**Change to:**

**DEADLINE FOR CLAIRIFICATION REQUESTS:**

DEADLINE FOR ADDENDUM 2 CLARIFICATION REQUESTS: December 4, 2017.

**Delete:**

**SPECIFICATIONS, SECTION 01590, COUNTY'S FIELD OFFICE**

Specifications, Section 01590, COUNTY'S FIELD OFFICE is hereby deleted from the Specifications.

**Replace:**

**BID FORM – BID A 313 CALENDAR DAYS COMPLETION**

Replace Bid Form A with the attached Bid Form A, revised per this Addendum No. 2. Bidder should use the revised Bid Form A for submission of its Bid pricing.

**Replace:**

**BID FORM – BID B 253 CALENDAR DAYS COMPLETION**

Replace Bid Form B with the attached Bid Form B, revised per this Addendum No. 2. Bidder should use the revised Bid Form B for submission of its Bid pricing.

**Replace:**

**TECHNICAL SPECIFICATION SECTION 01150 MEASUREMENT AND PAYMENT:**

Replace Technical Specifications Section 01150 with the attached Specifications Section 01150, revised per this Addendum No. 2.

**Replace:**

**PLAN SHEETS (dated 09/2017)**

Replace Plan Sheets 16 and 17 with the revised Plan Sheets 16, 17, and 17A, Addendum No.2.

**Information:**

**BID FORMS A AND B**

Bid Forms have been revised to include a Bid Item #42, Removal & Replacement of Unsuitable Material.

**Information:**

**SPECIFICATIONS, SECTION 01150, MEASUREMENT AND PAYMENT**

Specifications, Section 01150, Measurement and Payment has been revised to include Removal & Replacement of Unsuitable Material. Contractor shall follow the guidelines in Section 02220 and Section 02221.

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**Questions and Responses:**

Q1. Reference specifications Section 01150, MEASUREMENT AND PAYMENT, page 01550-5, BID ITEM – PVC DR 18 PIPE, first paragraph, last sentence, “No additional compensation shall be made for extensive dewatering or any water treatment services or equipment that may be required for contaminated groundwater.” This sentence needs to be deleted from this specification. The Contractor does not know if contaminated groundwater will be encountered and should not be held responsible for costs associated for remedial dewatering efforts. Please delete.

R1. Bid Items 9-11 have been revised to eliminate the requirements for treatment of contaminated groundwater per this Addendum 2. Bid Item now reads:

*Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter PVC force main (AWWA C-900, CL-150 or C-905, CL-235) pipe as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe and installed and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, for repair of any trench settlement., or for extensive dewatering.*

Q2. Reference specifications Section 01150, MEASUREMENT AND PAYMENT, page 01550-5, BID ITEM – HDPE DR 11 PIPE (HDD), second paragraph, last sentence, “No additional compensation shall be made for extensive dewatering or any water treatment services or equipment that may be required for contaminated groundwater.” This sentence needs to be deleted from this specification. The Contractor does not know if contaminated groundwater will be encountered and should not be held responsible for costs associated for remedial dewatering efforts. Please delete.

**R2. Bid Items 9-11 have been revised to eliminate the requirements for treatment of contaminated groundwater per this Addendum 2. Bid Item now reads:**

***Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter HDPE DR 11 pipe by directional drill and associated connection pipe sections as shown on the Contract Drawings and listed on the Bid Form. As part of the testing methods for the HDPE pipe installation, the Contractor shall televise or pull a mandrill through the installed HDPE pipe to verify sound installation***

***Measurement and Payment shall be made for the actual length of the listed diameter pipe directional drilled and installed, and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing, pipe restraints (including HDPE x PVC adapter), dual tracer wires, mud trailer, removal of drilling mud, and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, for repair of any trench settlement, or for extensive dewatering.***

Q3. Reference specifications Section 01590, COUNTY’S FIELD OFFICE, why does this job need a field office?

**R3. Section 01590 COUNTY’S FIELD OFFICE has been removed from the Specifications per this Addendum 2.**

Q4. Please provide plans in PDF format, not scanned, as the scanned copies do not copy well and are miserable to read.

**R4. PDF plans were provided in Addendum 1.**

Q5. Reference specifications Section 01150, MEASUREMENT AND PAYMENT, page 01150-7, BID ITEM NO. 25 – ABOVE GROUND PIPING AND MAG METER ASSEMBLY, second to the last sentence “The mag meter shall be an Ultra Mag Meter UM06”. Now reference plan sheet 17, PROPOSED PIPE AND FITTINGS LEGEND, legend item no. 14, 8” D.I. MAG METER – ULTRA MAG UM06-08 MAG METER, what are we furnishing, model UM06 or model UM08?

**R5. The meter shall be model UM06. On Plan Sheet 17, the reference to 08 refers to the diameter of the meter.**

Q6. Reference plan sheet 17, PROPOSED LS 11 ABOVE GROUND PIPING, how does the mag meter get electrical power? There is no electrical schematic, please provide or is this meter to be battery powered?

**R6. Refer to Notes 3-5 on Plan Sheet 17. Additionally, the County intends to replace the existing control panel prior to this project initiating. Refer to Plan Set, Sheet 17A for connection details.**

Q7. Reference bid form, bid item 28, Soil Stabilization, why is the unit of measure for this item in cubic yards? Stabilized sub-grade is normally paid by the square yard, please change to square yard unit of measure.

**R7. Bid Item 28 is revised to Soil Subgrade, which is the soil to be used as part of the pavement and roadway restoration. The Bid Form and Measurement and Payment have been revised per this Addendum 2.**

Q8. Reference bid form, bid item 35, Lift Station Shrub Replacement, the Measurement and Payment section for this bid item tells us to replace “in like kind” the shrubs for this item. Plan sheet 21, shows PETITE PINK OLEANDER, what are we to provide for bid item 35?

**R8. Plan Sheet 21 calls for Petite Pink Oleander, which are similar to the current landscaping; therefore, the contractor shall provide Petite Pink Oleander.**

Q9. Reference bid form, bid item 28, Soil Stabilization, now reference plan sheet 18, CONSTRUCTION DETAILS, Detail UG-12, this detail does not show installing a stabilized sub-grade and as a result we do not have enough information to bid Item 28, if all we are to do is install the 8-inch crushed concrete base material on a compacted sub-grade, as Detail UG-12 shows, why do we have bid item 28?

**R9. Bid Item 28 should be Soil Subgrade. Refer to the response to Question 7.**

Q10. Reference plan sheet 17, PLAN VIEW – PROPOSED, Note: “Contractor to coordinate with the County on location of panel, power and instrumentation requirements, and SCADA”, how are we supposed to include costs for this scope of work? Please provide more information.

**R10. See response to Question 6.**

Q11. Reference plan sheet 17, what is the size and thickness of the concrete slab beneath the manifold piping?

**R11. Refer to the revised Plan Sheet included in this Addendum No. 2, Sheet 17.**

Q12. Reference bid form, bid item 27, Grout Fill Abandoned Existing Force Main, the bid quantity of 785 cubic yards is excessive. This is enough grout to fill over 15,000 lineal feet of 16-inch pipe. Please correct the bid quantity.

**R12. The quantity of grout fill has been revised to 210 cy per this Addendum 2.**

Q13. Reference plan sheet 18, Detail UG-14, Note 7, what is the “approved material” the base is to be constructed with?

**R13. Through coordination with the City, restoration within the right-of-way shall be restored per “Force Main 11 Driveway Restoration Detail”, Plan Sheet 20, which requires #57 Stone throughout the right-of-way.**

Q14. Reference bid form bid item 37, Driveway Replacement, there is a variety of different surface types of driveways that will be impacted by the open cut installation of the force main and this bid item does not provide a means of compensation for the different types of surface that will be restored. Please provide appropriate pay items for types of driveway restoration that will be needed.

**R14. See response to Question 13. Bid Item 37 has been revised to Right-of-Way Restoration. The Bid Forms and Specifications have been revised per this Addendum 2 to reflect the restoration requirements of the City.**

Q15. Reference plan sheet 20, Kimley-Horn Force Main 11 Driveway Restoration Detail, where is this detail applicable, all driveways?

**R15. Response: All driveways, regardless of type, disturbed by construction shall be restored per the "Force Main 11 Driveway Restoration Detail" on Sheet 20.**

Q16. At the pre-bid meeting, October 31, 2017, our representative, Mr. Rick Hoffman, got the impression from the engineer that we are to install infiltration stone over the open cut pipe in green areas and is incidental to the PVC pipe installation, I do not see a specific detail for this in the plans and do not see any reference to installing infiltration stone in the Measurement and Payment description for bid items 9 and 10, please provide a clarification if installation of infiltration stone is to be incidental to the installation of the open cut PVC pipe bid items and provide a detail.

**R16. Areas disturbed by open/cut installation, with the exception of connecting two directional drills, shall be restored per the "Force Main 11 Driveway Restoration Detail" on Plan Sheet 20. If the length of connection between two directional drills is less than 100-ft, the contractor shall restore with sod, which include:**

- **Sta. 23+69**
- **Sta. 25+64 to Sta. 25+84**
- **Sta. 31+08 to Sta. 31+83**

**The Bid Form description has been revised accordingly per this Addendum 2.**

Q17. Reference specifications Section 02619, HORIZONTAL DIRECTIONAL DRILLING, page 02619-7, top of the page, Table 2-1, this table shows us the reamed diameter for an 8" – 24" pipe is to be the diameter of the pipe x 1.5, for this project the 12-inch directional drilled force main pipe will have an outside diameter of 13.2 inches or 1.1 foot and will require, according to the table, a reamed hole of 1.65 feet or 20-inches in diameter. Now, reference plan sheets 5, 6, 9, 10, and 11, the design location of the directional drilled pipe is in such close proximity to the existing 8-inch gravity sanitary sewer that any attempt to ream a 20-inch hole alongside or below the invert elevation of the existing vitrified clay pipe sewer could cause damage and result in expensive repair. The current design location for the directional drilled pipe needs to be changed or consider going to open cut PVC.

**R17. The proposed force main alignment was designed to be as easy to construct as possible given the congested corridor and FDEP separation requirements from existing water mains. However, the contractor shall use caution when installing the proposed force main, and shall be responsible for any damaged caused by their construction.**

Q18. Reference plan sheets 6, 7, 8, and 9, each of these sheets have a note or multiple notes to "Remove Trees as Necessary Within R/W to Construct Force Main", once these trees are removed they cannot be replanted, will the Contractor be obligated to replace the trees that get removed? If so, please provide a bid item for this scope of work.

**R18. The trees within the right-of-way are not required to be replaced. Additionally, there is an existing Palm Tree adjacent to Lift Station 11 that the County would like removed. The Bid Form has been revised per this Addendum 2.**

Q19. Please provide plans in PDF format and not scanned format so we can get legible copies when printed.

**R19. PDF plans have been provided in Addendum 1.**

Q20. The specs call for a field office for the County. Is this truly required? There does not appear to be a location anywhere near the project for a field office. If this is required, does the County have a location for this facility?

R20. A County field office is not required. Section 01590 COUNTY'S FIELD OFFICE has been removed from the Specifications per this Addendum 2.

Q21. What type of pipe is the 16 FM that we are tapping? Ductile Iron or PVC?

R21. **Locate VVH 124 identifies the existing force main as a steel pipe. The as-builts do not identify the force main material; however, the other force mains replaced by the County have either been DI or CI.**

Q22. Regarding the above ground piping assembly, will we be required to paint any of this assembly? The measurement/payment description does not mention any painting. Or will the County paint it as part of their maintenance program? If the contractor is required to paint we must know what the existing valve assembly (to be reused) is coated with so we know what is needed to seal it prior to new paint.

R22. **Bid Item 25 has been revised per this Addendum 2 to include painting. Bid Item now reads:**

***Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the purchase and installation of a 8" magnetic flow meter, HDPE DR11 pipe, ductile iron pipe, flanged and mechanical joint fittings, painting, restraints, taps, pipe supports, abandonment/removal and necessary grouting of existing force main and vaults, reinstallation of existing valves and fittings, removal of landscaping around the lift station, coring of existing wet well, and pipe appurtenances included in the proposed aboveground piping detail shown on sheet 17 of the construction drawings. The mag meter shall be an Ultra Mag Meter UM06. Payment for all work included, but is not limited to, under this Bid Item labor shall include material, excavation, bedding, backfill, compaction, rock as necessary, installation, testing and obtaining approval from the County.***

***Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.***

Section 09900, covers the requirements for painting. The existing valve assembly has factory coating, refer to picture below. Contractor shall follow the guidelines of Section 09900 for coating the proposed and existing piping assembly.



Q23. The pipeline shows about 125 CY and the valve vault about 15 CY. Where is the balance of 645 CY to be used?

**R23. The quantity of grout fill has been revised to 210 cy per this Addendum 2.**

Q24. Please confirm the plug valve lining specification – specs currently have (2) different specs – it’s one, or the other - not both

- A) All valves shall have a factory applied, holiday free, fusion bonded epoxy coating on the interior and exterior unless otherwise noted in the plans or the following specification. All other painted items exposed to sunlight, including field painted box lids, etc., shall be painted the appropriate color with an epoxy type paint.
- B) Plug valves shall be coated inside with Protecto 401 or amine-cured novolac ceramic epoxy or another two-part epoxy suitable for sanitary sewer service which has been approved by Manatee County.

**R24. The Plug Valve coating shall follow Section 02640, 2.05(H). Additionally, all valves shall be holiday free, with proper certification upon shipping.**

Q25. Advise the county the 10-year warranty for the linings is not available – 1 year on the linings “The lining shall have a minimum ten year warranty covering failure of the lining and bond failure between liner and pipe.”

**R25. The warranty for the lining shall be one year.**

Q26. Confirm 1 wire is approved on directional drills – per; “Direct buried or horizontal directional drilled non-metallic pipe shall also have tracer wire installed along the pipe alignment. The tracer wire to be used shall be a solid,10 gauge, high strength, copper clad steel wire with a polyethylene jacket of appropriate color manufactured by Copperhead Industries or Manatee County approved equal.

**R26. Only one (1) wire is required for directional drills. However, per Section 02619, 3.08(N), if the wire breaks as part of the installation process, the Contractor shall repair or place the wire at no additional cost to the County.**

Q27. Confirm the County will accept an electrofusion coupling to connect to the existing 6” wet well pipe to the proposed 6” HDPE – see sheet 17 – if not, how are we to connect – manatee in the past does not prefer electro-fusion connections – only other method would be to use a mechanical connection (MJ sleeve)

**R27. Refer to the Plan Sheet 17 revised per this Addendum 2.**

Q28. There are several caps, with no specific pay items. Should we place those under the respective pipe size? Or should we ask for a pay item?

**R28. The caps shown in the plans are associated with the abandonment of the existing force main and are included in Bid Item 27.**

#### **INSTRUCTIONS:**

Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

**End of Addendum**

AUTHORIZED FOR RELEASE: \_\_\_\_\_

**BID FORM**  
**(Submit in Triplicate)**  
**FORCE MAIN 11 REPLACEMENT**  
**BID "A" 313 CALENDAR DAYS COMPLETION**

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS		
2	Maintenance of Traffic	1	LS		
3	Erosion and Sediment Control	1	LS		
4	Clearing and Grubbing	1	LS		
5	Utility Locates	1	LS		
6	Record Drawings	1	LS		
7	Preconstruction Video	1	LS		
8	Project Signs	1	LS		
9	12" PVC DR 18 Pipe (Open-Cut)	1900	LF		
10	10" PVC DR 18 Pipe (Open-Cut)	350	LF		
11	12" HDPE DR 11 Pipe (HDD)	2055	LF		
12	12" DI Fitting - Wye	1	EA		
13	12"x10" DI Fitting - Wye	1	EA		
14	12" DI Fitting - 45 deg	8	EA		
15	12" DI Fitting - 11.25deg	10	EA		
16	12" DI Fitting - Sleeve Coupling	10	EA		
17	10" DI Fitting - 45 deg	4	EA		
18	12" Bell Joint Pipe Restraint	51	EA		
19	10" Bell Joint Pipe Restraint	17	EA		
20	16" x 12" Tapping Sleeve and Valve	1	EA		
21	16" Line Stop	1	EA		
22	12" Plug Valve	5	EA		
23	10" Plug Valve	2	EA		
24	2" ARV	4	EA		
25	Aboveground Piping and Mag Meter Assembly	1	LS		
26	Bypass Pumping for Lift Station Modifications	1	LS		
27	Grout Fill Abandoned Existing Force Main	210	CY		

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

28	<b>Soil Subgrade</b>	1050	CY		
29	Crushed Concrete Base	530	SY		
30	Structural Course Asphalt Base - SP 12.5	60	TN		
31	Friction Course Overlay - FC 12.5	145	TN		
32	Milling	1725	SY		
33	Tree Removal	26	EA		
34	Sodding	950	SY		
35	Lift Station Shrub Replacement	35	EA		
36	Replacement/Relocation of Signs	1	LS		
37	<b>Right-of-Way Restoration</b>	<b>1900</b>	SY		
38	Sidewalk Repair	10	SY		
39	Pigging and Pressure Testing	1	LS		
40	Removal and Replacement of Infiltration Trench	1	LS		
41	Removal and Replacement of Stormwater Inlet and Piping	1	LS		
42	<b>Removal and Replacement of Unsuitable Material</b>	<b>36</b>	<b>CY</b>		
	SUBTOTAL (above items)				
	Contingency		10% of Subtotal		
<b>TOTAL OFFER BID "A"</b>					

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

**BID FORM**  
**(Submit in Triplicate)**  
**FORCE MAIN 11 REPLACEMENT**  
**BID "B" 253 CALENDAR DAYS COMPLETION**

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS		
2	Maintenance of Traffic	1	LS		
3	Erosion and Sediment Control	1	LS		
4	Clearing and Grubbing	1	LS		
5	Utility Locates	1	LS		
6	Record Drawings	1	LS		
7	Preconstruction Video	1	LS		
8	Project Signs	1	LS		
9	12" PVC DR 18 Pipe (Open-Cut)	1900	LF		
10	10" PVC DR 18 Pipe (Open-Cut)	350	LF		
11	12" HDPE DR 11 Pipe (HDD)	2055	LF		
12	12" DI Fitting - Wye	1	EA		
13	12"x10" DI Fitting - Wye	1	EA		
14	12" DI Fitting - 45 deg	8	EA		
15	12" DI Fitting - 11.25deg	10	EA		
16	12" DI Fitting - Sleeve Coupling	10	EA		
17	10" DI Fitting - 45 deg	4	EA		
18	12" Bell Joint Pipe Restraint	51	EA		
19	10" Bell Joint Pipe Restraint	17	EA		
20	16" x 12" Tapping Sleeve and Valve	1	EA		
21	16" Line Stop	1	EA		
22	12" Plug Valve	5	EA		
23	10" Plug Valve	2	EA		
24	2" ARV	4	EA		
25	Aboveground Piping and Mag Meter Assembly	1	LS		
26	Bypass Pumping for Lift Station Modifications	1	LS		
27	Grout Fill Abandoned Existing Force Main	210	CY		

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

28	<b>Soil Subgrade</b>	1050	CY		
29	Crushed Concrete Base	530	SY		
30	Structural Course Asphalt Base - SP 12.5	60	TN		
31	Friction Course Overlay - FC 12.5	145	TN		
32	Milling	1725	SY		
33	Tree Removal	26	EA		
34	Sodding	950	SY		
35	Lift Station Shrub Replacement	35	EA		
36	Replacement/Relocation of Signs	1	LS		
37	<b>Right-of-Way Restoration</b>	<b>1900</b>	SY		
38	Sidewalk Repair	10	SY		
39	Pigging and Pressure Testing	1	LS		
40	Removal and Replacement of Infiltration Trench	1	LS		
41	Removal and Replacement of Stormwater Inlet and Piping	1	LS		
42	<b>Removal and Replacement of Unsuitable Material</b>	<b>36</b>	<b>CY</b>		
	SUBTOTAL (above items)				
	Contingency		10% of Subtotal		
<b>TOTAL OFFER BID "B"</b>					

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

## SECTION 01150

### MEASUREMENT AND PAYMENT

#### **PART 1 GENERAL**

#### **1.01 SCOPE**

- A. The scope of this section of the Contract Documents is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.
- B. All contract prices included in the Bid Form section will be full compensation for all shop drawings, working drawings, labor, materials, tools, equipment and incidentals necessary to complete the construction as shown on the Drawings and/or as specified in the Contract Documents to be performed under this Contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work shown and/or specified to be performed under this Contract.

#### **1.02 ESTIMATED QUANTITIES**

The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The County does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.

#### **1.03 WORK OUTSIDE AUTHORIZED LIMITS**

No payment will be made for work constructed outside the authorized limits of work.

#### **1.04 MEASUREMENT STANDARDS**

Unless otherwise specified for the particular items involved, all measurements of distance shall be taken horizontally or vertically.

#### **1.05 AREA MEASUREMENTS**

In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

#### **1.06 LUMP SUM ITEMS**

Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall be complete, tested and fully operable prior to request for final payment. Contractor may be required to provide a break-down of the lump sum totals.

## 1.07

### UNIT PRICE ITEM

Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.

No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the County until as-built (record) drawings have been submitted and approved by the County.

1. Shop Drawings, Working Drawings.
2. Clearing, grubbing and grading except as hereinafter specified.
3. Trench excavation, including necessary pavement removal and rock removal, except as otherwise specified.
4. Dewatering and disposal of surplus water.
5. Structural fill, backfill, and grading.
6. Replacement of unpaved roadways, and shrubbery plots.
7. Cleanup and miscellaneous work.
8. Foundation and borrow materials, except as hereinafter specified.
9. Testing and placing system in operation.
10. Any material and equipment required to be installed and utilized for the tests.
11. Pipe, structures, pavement replacement, asphalt and shell driveways and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
12. Maintaining the existing quality of service during construction.
13. Maintaining or detouring of traffic.
14. Appurtenant work as required for a complete and operable system.
15. Seeding and hydro mulching.

## **BID ITEM NO. 1 - MOBILIZATION**

Measurement and payment for this Bid Item shall include full compensation for the required 100 percent (100%) Performance Bond, 100 Percent (100%) Payment Bond, all required insurance for the project and the Contractor's mobilization and demobilization costs as shown in the Bid Form. Mobilization includes, but it not limited to: preparation and movement of personnel, equipment, supplies and incidentals such as safety and sanitary supplies/ facilities.

Payment for mobilization shall not exceed 10 percent (10%) of the total Contract cost unless the Contractor can prove to the County that his actual mobilization cost exceeds 10 percent (10%).

Partial payments for this Bid Item will be made in accordance with the following schedule:

Percent of Original Contract Amount:	Percent Allowable Payment of Mobilization/Demobilization Bid Item Price:
5	25
10	35
25	45
50	50
75	75
100	100

These payments will be subject to the standard retainage provided in the Contract. Payment of the retainage will be made after completion of the work and demobilization.

## **BID ITEM NO. 2 - MAINTENANCE OF TRAFFIC**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for all maintenance of traffic, including coordination with FDOT, including all other local agencies and municipalities, and all equipment and manpower necessary to comply with the FDOT Design Standards 600 Series.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

## **BID ITEM NO. 3 - EROSION AND SEDIMENT CONTROL**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for erosion and sediment control, including permitting if required, coordination with federal, state and local agencies and all equipment and manpower necessary to comply with necessary agencies.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

#### **BID ITEM NO. 4 - CLEARING AND GRUBBING**

Payment for all work included under this Bid Item shall be quantified by the Contractor per acre and paid for as a lump sum amount for all of the areas that will require clearing and grubbing for the pipe installation and in accordance with the plans and specifications. Clearing and grubbing shall include the removal and disposal of trees, tree roots, rock, abandoned pipe and other features not part of the proposed improvements. The Contractor shall include the cost of any and all permitting required for the burning or disposal of removed trees and vegetation.

Unless otherwise indicated herein these documents or in the construction plans, clearing and grubbing includes a ten (10) foot strip along the pipeline route. The contractor will be responsible for making their own determination as to the acreage and quantity of clearing and grubbing.

#### **BID ITEM NO. 5 - UTILITY LOCATES**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the location of existing utilities in the project area. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM NO. 6 - RECORD DRAWINGS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for as-built record drawings or any other required certifications to put proposed project into service. All items are subject to approval by the Engineer and the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM NO. 7 - PRECONSTRUCTION VIDEO**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the preconstruction video of the existing site conditions. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

## BID ITEM NO. 8 - PROJECT SIGNS

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the necessary signage required during construction. At least two (2) project signs should be used per project. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

## BID ITEM - PVC DR 18 PIPE

Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter PVC force main (AWWA C-900, CL-150 or C-905, CL-235) pipe as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe and installed and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, for repair of any trench settlement, or for extensive dewatering.

BID ITEM	DESCRIPTION	UNITS
9	12" PVC DR 18 Pipe (Open-Cut)	LF
10	10" PVC DR 18 Pipe (Open-Cut)	LF

## BID ITEM - HDPE DR 11 PIPE (HDD)

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter HDPE DR 11 pipe by directional drill and associated connection pipe sections as shown on the Contract Drawings and listed on the Bid Form. As part of the testing methods for the HDPE pipe installation, the Contractor shall televise or pull a mandrill through the installed HDPE pipe to verify sound installation

Measurement and Payment shall be made for the actual length of the listed diameter pipe directional drilled and installed, and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing, pipe restraints (including HDPE x PVC adapter), dual tracer wires, mud trailer, removal of drilling mud, and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, for repair of any trench settlement, or for extensive dewatering.

BID ITEM	DESCRIPTION	UNITS
11	12" HDPE DR 11 Pipe (HDD)	LF

## BID ITEM - DI FITTINGS

Payment for all work included in these Bid Items will be made at the applicable Contract unit price bid for furnishing and installing each listed ductile iron fitting (Protecto 401 epoxy lined) as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, mechanical joint restraint or adapter, testing and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
12	12" DI Fittings - Wye	EA
13	12" x 10" DI Fittings - Wye	EA
14	12" DI Fittings - 45 Degree	EA
15	12" DI Fitting - 11.25 Degree	EA
16	12" DI Fittings - Sleeve Coupling	EA
17	10" DI Fittings - 45 Degree	EA

## BID ITEM - BELL JOINT PIPE RESTRAINTS

Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per each restraint required to restrain the piping required by the Contract Drawings. Measurement will be based on each complete restraint furnished and installed except where specifically included in another pay item. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, and testing required to complete this Bid Item. This Bid Item includes the installation of restraints used in restraining PVC and ductile iron pipe of the specified type acceptably furnished and installed as shown on the drawings or where directed by the Project Representative and in accordance with the pipe and restraint manufacturer's requirements. The work shall include, but is not limited to, all bolts, nuts, washers, gaskets, and all other related and necessary materials, work and equipment required or associated with this item.

BID ITEM	DESCRIPTION	UNITS
18	12" Bell Joint Pipe Restraint	EA
19	10" Bell Joint Pipe Restraint	EA

## BID ITEM NO. 20 - 16" x 12" TAPPING SLEEVE AND VALVE

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing each listed 16" x 12" Tapping Sleeve and Valve as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

**BID ITEM NO. 21 - 16" LINE STOP**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing each listed 16" Line Stop as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

**BID ITEM - PLUG VALVES**

Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per each valve for furnishing and installing the listed diameter valve, box, cover, pipe adaptor, and concrete pad as shown on the Contract Drawings and listed on the Bid Form. All Plug Valves shall be "true" full 100% port eccentric plug valves. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
22	12" Plug Valves	EA
23	10" Plug Valves	EA

**BID ITEM - AIR RELEASE VALVES**

Payment for all work included in this Bid Item shall be at the applicable Contract unit price bid per each air release valve for furnishing and installing the listed diameter air release valve, box, cover and concrete pad as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction testing, disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
24	2" ARV Type 2 (Above Ground)	EA

**BID ITEM NO. 25 - ABOVEGROUND PIPING AND MAG METER ASSEMBLY**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the purchase and installation of a 8" magnetic flow meter, HDPE DR11 pipe, ductile iron pipe, flanged and mechanical joint fittings, painting, restraints, taps, pipe supports, abandonment/removal and necessary grouting of existing force main and vaults, reinstallation of existing valves and fittings, removal of landscaping around the lift station, coring of existing wet well, and pipe appurtenances included in the proposed aboveground piping detail shown on sheet 17 of the construction drawings. The mag meter shall be an Ultra Mag Meter UM06. Payment for all work included, but is not limited to, under this Bid Item labor shall include material, excavation, bedding, backfill, compaction, rock as necessary, installation, testing and obtaining approval from the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

**BID ITEM NO. 26 - BYPASS PUMPING FOR LIFT STATION MODIFICATIONS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for proposed connections to existing force mains, proposed force mains, and existing manholes and/or lift stations. Payment for all work included, but is not limited to, under this Bid Item shall also represent full compensation in accordance with the lump sum price bid for all labor, fittings, excavation, dewatering, bedding, backfill, compaction, testing, equipment, temporary line stops and the bypassing of the existing lift station in order to complete the proposed improvements, including any bypass pumping during the construction.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

**BID ITEM NO. 27 - GROUT FILL ABANDONED EXISTING FORCE MAINS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the unit price bid per cubic yard of grout fill that is required to abandon all of the existing 10” and 12” diameter force mains to be deactivated. Payment will include all equipment, labor, fittings and appurtenances required to abandon the existing force mains in accordance with County standards.

**BID ITEM - PAVEMENT REPAIR AND ROAD RESTORATION**

Payment for all work included in these Bid Items will be made at the applicable Contract unit price listed below for soil, crushed concrete, milling and asphaltic concrete, for the roadway restoration related to the subsurface utility exploration as listed on the Bid Form. Payment shall represent full compensation for all labor, materials and equipment for cutting the edges of existing roadway, compacting subgrade, furnishing and installing the crushed concrete, asphaltic concrete and all incidentals necessary to complete the roadway restoration as shown on the Contract Drawings and included in the Specifications, all ready for approval and acceptance by the County.

<b>BID ITEM</b>	<b>DESCRIPTION</b>	<b>UNITS</b>
28	Soil Subgrade	CY
29	Crushed Concrete Base	SY
30	Structural Course Asphalt Base - SP 12.5	TN
31	Friction Course Overlay - FC 12.5	TN
32	Milling	SY

**BID ITEM NO. 33 -TREE REMOVAL**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per each tree to be removed as shown on the Contract Drawings and listed on the Bid Form. Contractor to reference Contract Drawings for tree sizes. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

**BID ITEM NO. 34 - SODDING**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per square yard for furnishing and installing sodding as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

**BID ITEM NO. 35 - LIFT STATION SHRUB REPLACEMENT**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for each tree planted for restoration around the lift station. Contractor shall restore areas back to original or better conditions, with like-for-like vegetation, bedding, and shrubbery. Payment shall represent full compensation for all coordination between the County's representatives, property owners, and local agencies, including all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

**BID ITEM NO. 36 - REPLACEMENT/RELOCATION OF SIGNS**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum price for the relocation or replacement of existing signs or sign posts as shown on the Contract Drawings and any other replacements or relocations necessary during construction. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County

**BID ITEM NO. 37 - RIGHT-OF-WAY RESTORATION**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per square yard of restoration within the City's right-of-way. Measurement of restoration will be per the actual number of square yards of 57 stone or approved alternate installed. Payment shall represent full compensation for all labor, materials and equipment for cutting the edges of existing driveways, compacting subgrade, furnishing and installing the 57 stone or approved alternate, including all incidentals necessary to complete the driveway restoration as shown on the Contract Drawings and included in the Specifications, all ready for approval and acceptance by the County and City.

**BID ITEM NO. 38 - SIDEWALK REPAIR**

Payment for all work included under this Bid Item will be made at the Contract unit price bid per square yard of concrete sidewalk installed as shown in the Contract Drawings and as listed on the Bid Form. Measurement will be based on the actual number of square yards of concrete sidewalk installed, tested, completed and approved. No payment for restoration of a private driveway within or outside the right-of-way shall be made under this Bid Item. Sidewalks shall meet the requirements of the Manatee County Transportation Design Standards.

Q23. The pipeline shows about 125 CY and the valve vault about 15 CY. Where is the balance of 645 CY to be used?

**R23. The quantity of grout fill has been revised to 210 cy per this Addendum 2.**

Q24. Please confirm the plug valve lining specification – specs currently have (2) different specs – it's one, or the other - not both

- A) All valves shall have a factory applied, holiday free, fusion bonded epoxy coating on the interior and exterior unless otherwise noted in the plans or the following specification. All other painted items exposed to sunlight, including field painted box lids, etc., shall be painted the appropriate color with an epoxy type paint.
- B) Plug valves shall be coated inside with Protecto 401 or amine-cured novolac ceramic epoxy or another two-part epoxy suitable for sanitary sewer service which has been approved by Manatee County.

**R24. The Plug Valve coating shall follow Section 02640, 2.05(H). Additionally, all valves shall be holiday free, with proper certification upon shipping.**

Q25. Advise the county the 10-year warranty for the linings is not available – 1 year on the linings “The lining shall have a minimum ten year warranty covering failure of the lining and bond failure between liner and pipe.”

**R25. The warranty for the lining shall be one year.**

Q26. Confirm 1 wire is approved on directional drills – per; “Direct buried or horizontal directional drilled non-metallic pipe shall also have tracer wire installed along the pipe alignment. The tracer wire to be used shall be a solid, 10 gauge, high strength, copper clad steel wire with a polyethylene jacket of appropriate color manufactured by Copperhead Industries or Manatee County approved equal.

**R26. Only one (1) wire is required for directional drills. However, per Section 02619, 3.08(N), if the wire breaks as part of the installation process, the Contractor shall repair or place the wire at no additional cost to the County.**

Q27. Confirm the County will accept an electrofusion coupling to connect to the existing 6” wet well pipe to the proposed 6” HDPE – see sheet 17 – if not, how are we to connect – manatee in the past does not prefer electro-fusion connections – only other method would be to use a mechanical connection (MJ sleeve)

**R27. Refer to the Plan Sheet 17 revised per this Addendum 2.**

Q28. There are several caps, with no specific pay items. Should we place those under the respective pipe size? Or should we ask for a pay item?

**R28. The caps shown in the plans are associated with the abandonment of the existing force main and are included in Bid Item 27.**

**INSTRUCTIONS:**

Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

**End of Addendum**

AUTHORIZED FOR RELEASE: 

**BID FORM**  
**(Submit in Triplicate)**  
**FORCE MAIN 11 REPLACEMENT**  
**BID "A" 313 CALENDAR DAYS COMPLETION**

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS		
2	Maintenance of Traffic	1	LS		
3	Erosion and Sediment Control	1	LS		
4	Clearing and Grubbing	1	LS		
5	Utility Locates	1	LS		
6	Record Drawings	1	LS		
7	Preconstruction Video	1	LS		
8	Project Signs	1	LS		
9	12" PVC DR 18 Pipe (Open-Cut)	1900	LF		
10	10" PVC DR 18 Pipe (Open-Cut)	350	LF		
11	12" HDPE DR 11 Pipe (HDD)	2055	LF		
12	12" DI Fitting - Wye	1	EA		
13	12"x10" DI Fitting - Wye	1	EA		
14	12" DI Fitting - 45 deg	8	EA		
15	12" DI Fitting - 11.25deg	10	EA		
16	12" DI Fitting - Sleeve Coupling	10	EA		
17	10" DI Fitting - 45 deg	4	EA		
18	12" Bell Joint Pipe Restraint	51	EA		
19	10" Bell Joint Pipe Restraint	17	EA		
20	16" x 12" Tapping Sleeve and Valve	1	EA		
21	16" Line Stop	1	EA		
22	12" Plug Valve	5	EA		
23	10" Plug Valve	2	EA		
24	2" ARV	4	EA		
25	Aboveground Piping and Mag Meter Assembly	1	LS		
26	Bypass Pumping for Lift Station Modifications	1	LS		
27	Grout Fill Abandoned Existing Force Main	210	CY		

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

28	<b>Soil Subgrade</b>	1050	CY		
29	Crushed Concrete Base	530	SY		
30	Structural Course Asphalt Base - SP 12.5	60	TN		
31	Friction Course Overlay - FC 12.5	145	TN		
32	Milling	1725	SY		
33	Tree Removal	26	EA		
34	Sodding	950	SY		
35	Lift Station Shrub Replacement	35	EA		
36	Replacement/Relocation of Signs	1	LS		
37	<b>Right-of-Way Restoration</b>	<b>1900</b>	SY		
38	Sidewalk Repair	10	SY		
39	Pigging and Pressure Testing	1	LS		
40	Removal and Replacement of Infiltration Trench	1	LS		
41	Removal and Replacement of Stormwater Inlet and Piping	1	LS		
42	<b>Removal and Replacement of Unsuitable Material</b>	<b>36</b>	<b>CY</b>		
	SUBTOTAL (above items)				
	Contingency		10% of Subtotal		
<b>TOTAL OFFER BID "A"</b>					

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

**BID FORM**  
**(Submit in Triplicate)**  
**FORCE MAIN 11 REPLACEMENT**  
**BID "B" 253 CALENDAR DAYS COMPLETION**

ITEM	DESCRIPTION	QUANTITY		UNIT PRICE	AMOUNT
1	Mobilization	1	LS		
2	Maintenance of Traffic	1	LS		
3	Erosion and Sediment Control	1	LS		
4	Clearing and Grubbing	1	LS		
5	Utility Locates	1	LS		
6	Record Drawings	1	LS		
7	Preconstruction Video	1	LS		
8	Project Signs	1	LS		
9	12" PVC DR 18 Pipe (Open-Cut)	1900	LF		
10	10" PVC DR 18 Pipe (Open-Cut)	350	LF		
11	12" HDPE DR 11 Pipe (HDD)	2055	LF		
12	12" DI Fitting - Wye	1	EA		
13	12"x10" DI Fitting - Wye	1	EA		
14	12" DI Fitting - 45 deg	8	EA		
15	12" DI Fitting - 11.25deg	10	EA		
16	12" DI Fitting - Sleeve Coupling	10	EA		
17	10" DI Fitting - 45 deg	4	EA		
18	12" Bell Joint Pipe Restraint	51	EA		
19	10" Bell Joint Pipe Restraint	17	EA		
20	16" x 12" Tapping Sleeve and Valve	1	EA		
21	16" Line Stop	1	EA		
22	12" Plug Valve	5	EA		
23	10" Plug Valve	2	EA		
24	2" ARV	4	EA		
25	Aboveground Piping and Mag Meter Assembly	1	LS		
26	Bypass Pumping for Lift Station Modifications	1	LS		
27	Grout Fill Abandoned Existing Force Main	210	CY		

Signature: \_\_\_\_\_  
Bidder: \_\_\_\_\_

28	<b>Soil Subgrade</b>	1050	CY		
29	Crushed Concrete Base	530	SY		
30	Structural Course Asphalt Base - SP 12.5	60	TN		
31	Friction Course Overlay - FC 12.5	145	TN		
32	Milling	1725	SY		
33	Tree Removal	26	EA		
34	Sodding	950	SY		
35	Lift Station Shrub Replacement	35	EA		
36	Replacement/Relocation of Signs	1	LS		
37	<b>Right-of-Way Restoration</b>	<b>1900</b>	SY		
38	Sidewalk Repair	10	SY		
39	Pigging and Pressure Testing	1	LS		
40	Removal and Replacement of Infiltration Trench	1	LS		
41	Removal and Replacement of Stormwater Inlet and Piping	1	LS		
42	<b>Removal and Replacement of Unsuitable Material</b>	<b>36</b>	<b>CY</b>		
	SUBTOTAL (above items)				
	Contingency	10% of Subtotal			
<b>TOTAL OFFER BID "B"</b>					

Signature: \_\_\_\_\_  
 Bidder: \_\_\_\_\_

## SECTION 01150

### MEASUREMENT AND PAYMENT

#### **PART 1 GENERAL**

##### **1.01 SCOPE**

- A. The scope of this section of the Contract Documents is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.
- B. All contract prices included in the Bid Form section will be full compensation for all shop drawings, working drawings, labor, materials, tools, equipment and incidentals necessary to complete the construction as shown on the Drawings and/or as specified in the Contract Documents to be performed under this Contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work shown and/or specified to be performed under this Contract.

##### **1.02 ESTIMATED QUANTITIES**

The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The County does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.

##### **1.03 WORK OUTSIDE AUTHORIZED LIMITS**

No payment will be made for work constructed outside the authorized limits of work.

##### **1.04 MEASUREMENT STANDARDS**

Unless otherwise specified for the particular items involved, all measurements of distance shall be taken horizontally or vertically.

##### **1.05 AREA MEASUREMENTS**

In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

##### **1.06 LUMP SUM ITEMS**

Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall be complete, tested and fully operable prior to request for final payment. Contractor may be required to provide a break-down of the lump sum totals.

## 1.07

### UNIT PRICE ITEM

Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.

No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the County until as-built (record) drawings have been submitted and approved by the County.

1. Shop Drawings, Working Drawings.
2. Clearing, grubbing and grading except as hereinafter specified.
3. Trench excavation, including necessary pavement removal and rock removal, except as otherwise specified.
4. Dewatering and disposal of surplus water.
5. Structural fill, backfill, and grading.
6. Replacement of unpaved roadways, and shrubbery plots.
7. Cleanup and miscellaneous work.
8. Foundation and borrow materials, except as hereinafter specified.
9. Testing and placing system in operation.
10. Any material and equipment required to be installed and utilized for the tests.
11. Pipe, structures, pavement replacement, asphalt and shell driveways and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
12. Maintaining the existing quality of service during construction.
13. Maintaining or detouring of traffic.
14. Appurtenant work as required for a complete and operable system.
15. Seeding and hydro mulching.

## **BID ITEM NO. 1 - MOBILIZATION**

Measurement and payment for this Bid Item shall include full compensation for the required 100 percent (100%) Performance Bond, 100 Percent (100%) Payment Bond, all required insurance for the project and the Contractor's mobilization and demobilization costs as shown in the Bid Form. Mobilization includes, but it not limited to: preparation and movement of personnel, equipment, supplies and incidentals such as safety and sanitary supplies/ facilities.

Payment for mobilization shall not exceed 10 percent (10%) of the total Contract cost unless the Contractor can prove to the County that his actual mobilization cost exceeds 10 percent (10%).

Partial payments for this Bid Item will be made in accordance with the following schedule:

Percent of Original Contract Amount:	Percent Allowable Payment of Mobilization/Demobilization Bid Item Price:
5	25
10	35
25	45
50	50
75	75
100	100

These payments will be subject to the standard retainage provided in the Contract. Payment of the retainage will be made after completion of the work and demobilization.

## **BID ITEM NO. 2 - MAINTENANCE OF TRAFFIC**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for all maintenance of traffic, including coordination with FDOT, including all other local agencies and municipalities, and all equipment and manpower necessary to comply with the FDOT Design Standards 600 Series.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

## **BID ITEM NO. 3 - EROSION AND SEDIMENT CONTROL**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for erosion and sediment control, including permitting if required, coordination with federal, state and local agencies and all equipment and manpower necessary to comply with necessary agencies.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

#### **BID ITEM NO. 4 - CLEARING AND GRUBBING**

Payment for all work included under this Bid Item shall be quantified by the Contractor per acre and paid for as a lump sum amount for all of the areas that will require clearing and grubbing for the pipe installation and in accordance with the plans and specifications. Clearing and grubbing shall include the removal and disposal of trees, tree roots, rock, abandoned pipe and other features not part of the proposed improvements. The Contractor shall include the cost of any and all permitting required for the burning or disposal of removed trees and vegetation.

Unless otherwise indicated herein these documents or in the construction plans, clearing and grubbing includes a ten (10) foot strip along the pipeline route. The contractor will be responsible for making their own determination as to the acreage and quantity of clearing and grubbing.

#### **BID ITEM NO. 5 - UTILITY LOCATES**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the location of existing utilities in the project area. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM NO. 6 - RECORD DRAWINGS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for as-built record drawings or any other required certifications to put proposed project into service. All items are subject to approval by the Engineer and the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

#### **BID ITEM NO. 7 - PRECONSTRUCTION VIDEO**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the preconstruction video of the existing site conditions. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

## BID ITEM NO. 8 - PROJECT SIGNS

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the necessary signage required during construction. At least two (2) project signs should be used per project. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

## BID ITEM - PVC DR 18 PIPE

Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter PVC force main (AWWA C-900, CL-150 or C-905, CL-235) pipe as shown on the Contract Drawings and listed on the Bid Form. Measurement and Payment shall be made for the actual length of the listed diameter pipe and installed and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, for repair of any trench settlement, or for extensive dewatering.

BID ITEM	DESCRIPTION	UNITS
9	12" PVC DR 18 Pipe (Open-Cut)	LF
10	10" PVC DR 18 Pipe (Open-Cut)	LF

## BID ITEM - HDPE DR 11 PIPE (HDD)

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per the schedule of prices for furnishing and installing the listed diameter HDPE DR 11 pipe by directional drill and associated connection pipe sections as shown on the Contract Drawings and listed on the Bid Form. As part of the testing methods for the HDPE pipe installation, the Contractor shall televise or pull a mandrill through the installed HDPE pipe to verify sound installation

Measurement and Payment shall be made for the actual length of the listed diameter pipe directional drilled and installed, and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing, pipe restraints (including HDPE x PVC adapter), dual tracer wires, mud trailer, removal of drilling mud, and equipment required to complete these Bid Items. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, for repair of any trench settlement, or for extensive dewatering.

BID ITEM	DESCRIPTION	UNITS
11	12" HDPE DR 11 Pipe (HDD)	LF

## BID ITEM - DI FITTINGS

Payment for all work included in these Bid Items will be made at the applicable Contract unit price bid for furnishing and installing each listed ductile iron fitting (Protecto 401 epoxy lined) as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, mechanical joint restraint or adapter, testing and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
12	12" DI Fittings - Wye	EA
13	12" x 10" DI Fittings - Wye	EA
14	12" DI Fittings - 45 Degree	EA
15	12" DI Fitting - 11.25 Degree	EA
16	12" DI Fittings - Sleeve Coupling	EA
17	10" DI Fittings - 45 Degree	EA

## BID ITEM - BELL JOINT PIPE RESTRAINTS

Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per each restraint required to restrain the piping required by the Contract Drawings. Measurement will be based on each complete restraint furnished and installed except where specifically included in another pay item. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, and testing required to complete this Bid Item. This Bid Item includes the installation of restraints used in restraining PVC and ductile iron pipe of the specified type acceptably furnished and installed as shown on the drawings or where directed by the Project Representative and in accordance with the pipe and restraint manufacturer's requirements. The work shall include, but is not limited to, all bolts, nuts, washers, gaskets, and all other related and necessary materials, work and equipment required or associated with this item.

BID ITEM	DESCRIPTION	UNITS
18	12" Bell Joint Pipe Restraint	EA
19	10" Bell Joint Pipe Restraint	EA

## BID ITEM NO. 20 - 16" x 12" TAPPING SLEEVE AND VALVE

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing each listed 16" x 12" Tapping Sleeve and Valve as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

**BID ITEM NO. 21 - 16" LINE STOP**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for furnishing and installing each listed 16" Line Stop as shown on the Contract Drawings and listed on the Bid Form. Payment will be made for each fitting installed and will represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

**BID ITEM - PLUG VALVES**

Payment for all work included in these Bid Items shall be made at the applicable Contract unit price bid per each valve for furnishing and installing the listed diameter valve, box, cover, pipe adaptor, and concrete pad as shown on the Contract Drawings and listed on the Bid Form. All Plug Valves shall be "true" full 100% port eccentric plug valves. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
22	12" Plug Valves	EA
23	10" Plug Valves	EA

**BID ITEM - AIR RELEASE VALVES**

Payment for all work included in this Bid Item shall be at the applicable Contract unit price bid per each air release valve for furnishing and installing the listed diameter air release valve, box, cover and concrete pad as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction testing, disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
24	2" ARV Type 2 (Above Ground)	EA

**BID ITEM NO. 25 - ABOVEGROUND PIPING AND MAG METER ASSEMBLY**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the purchase and installation of a 8" magnetic flow meter, HDPE DR11 pipe, ductile iron pipe, flanged and mechanical joint fittings, painting, restraints, taps, pipe supports, abandonment/removal and necessary grouting of existing force main and vaults, reinstallation of existing valves and fittings, removal of landscaping around the lift station, coring of existing wet well, and pipe appurtenances included in the proposed aboveground piping detail shown on sheet 17 of the construction drawings. The mag meter shall be an Ultra Mag Meter UM06. Payment for all work included, but is not limited to, under this Bid Item labor shall include material, excavation, bedding, backfill, compaction, rock as necessary, installation, testing and obtaining approval from the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

**BID ITEM NO. 26 - BYPASS PUMPING FOR LIFT STATION MODIFICATIONS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for proposed connections to existing force mains, proposed force mains, and existing manholes and/or lift stations. Payment for all work included, but is not limited to, under this Bid Item shall also represent full compensation in accordance with the lump sum price bid for all labor, fittings, excavation, dewatering, bedding, backfill, compaction, testing, equipment, temporary line stops and the bypassing of the existing lift station in order to complete the proposed improvements, including any bypass pumping during the construction.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor in accordance with the Contract Documents.

**BID ITEM NO. 27 - GROUT FILL ABANDONED EXISTING FORCE MAINS**

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the unit price bid per cubic yard of grout fill that is required to abandon all of the existing 10” and 12” diameter force mains to be deactivated. Payment will include all equipment, labor, fittings and appurtenances required to abandon the existing force mains in accordance with County standards.

**BID ITEM - PAVEMENT REPAIR AND ROAD RESTORATION**

Payment for all work included in these Bid Items will be made at the applicable Contract unit price listed below for soil, crushed concrete, milling and asphaltic concrete, for the roadway restoration related to the subsurface utility exploration as listed on the Bid Form. Payment shall represent full compensation for all labor, materials and equipment for cutting the edges of existing roadway, compacting subgrade, furnishing and installing the crushed concrete, asphaltic concrete and all incidentals necessary to complete the roadway restoration as shown on the Contract Drawings and included in the Specifications, all ready for approval and acceptance by the County.

<b>BID ITEM</b>	<b>DESCRIPTION</b>	<b>UNITS</b>
28	Soil Subgrade	CY
29	Crushed Concrete Base	SY
30	Structural Course Asphalt Base - SP 12.5	TN
31	Friction Course Overlay - FC 12.5	TN
32	Milling	SY

**BID ITEM NO. 33 -TREE REMOVAL**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per each tree to be removed as shown on the Contract Drawings and listed on the Bid Form. Contractor to reference Contract Drawings for tree sizes. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

**BID ITEM NO. 34 - SODDING**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per square yard for furnishing and installing sodding as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

**BID ITEM NO. 35 - LIFT STATION SHRUB REPLACEMENT**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid for each tree planted for restoration around the lift station. Contractor shall restore areas back to original or better conditions, with like-for-like vegetation, bedding, and shrubbery. Payment shall represent full compensation for all coordination between the County's representatives, property owners, and local agencies, including all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

**BID ITEM NO. 36 - REPLACEMENT/RELOCATION OF SIGNS**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum price for the relocation or replacement of existing signs or sign posts as shown on the Contract Drawings and any other replacements or relocations necessary during construction. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County

**BID ITEM NO. 37 - RIGHT-OF-WAY RESTORATION**

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per square yard of restoration within the City's right-of-way. Measurement of restoration will be per the actual number of square yards of 57 stone or approved alternate installed. Payment shall represent full compensation for all labor, materials and equipment for cutting the edges of existing driveways, compacting subgrade, furnishing and installing the 57 stone or approved alternate, including all incidentals necessary to complete the driveway restoration as shown on the Contract Drawings and included in the Specifications, all ready for approval and acceptance by the County and City.

**BID ITEM NO. 38 - SIDEWALK REPAIR**

Payment for all work included under this Bid Item will be made at the Contract unit price bid per square yard of concrete sidewalk installed as shown in the Contract Drawings and as listed on the Bid Form. Measurement will be based on the actual number of square yards of concrete sidewalk installed, tested, completed and approved. No payment for restoration of a private driveway within or outside the right-of-way shall be made under this Bid Item. Sidewalks shall meet the requirements of the Manatee County Transportation Design Standards.

**BID ITEM NO. 39 - PIGGING AND PRESSURE TESTING**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for test pigging and pressure testing the proposed force main. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

**BID ITEM NO. 40 - REMOVAL AND REPLACEMENT OF INFILTRATION TRENCH**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the necessary removal and replacement of infiltration trench per City of Bradenton Beach detail. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

**BID ITEM NO. 41 - REMOVAL AND REPLACEMENT OF STORMWATER INLET AND PIPING**

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the necessary removal and replacement of stormwater inlets and piping. Payment shall represent full compensation for all labor, materials, necessary equipment, and incidentals necessary to complete the work, ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the approved Schedule of Values, to be supplied by the Contractor In accordance with the Contract Documents.

**BID ITEM NO. 42 - REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL**

Payment for all work included in this Bid Item will be made at the applicable cubic yard cost to remove and replace unsuitable soils are other material encountered during construction. Payment shall represent full compensation for all labor, materials, equipment, and incidentals necessary to remove the unsuitable material and import clean fill to complete the work as approved by the County.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**