



MANATEE COUNTY

December 20, 2012

All Interested Bidders:

SUBJECT: Invitation for Bid #12-2151-OV
Force Main Replacement Project (1A, 2A and 16A)
Project No.: 60522.80

ADDENDUM #2

Bidders are hereby notified that this Addendum shall be acknowledged on page 00300-1 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

Bidders Note: The deadline for clarification requests has been **extended to January 4, 2013.**

Bidders Note:

Bid Item Nos. 2B, 2D, 2F, 2H and 7A have been revised. The attached Revised Bid Form(s), Bid "A" and Bid "B" (page nos. 00300-3 through and including page no. 00300-8) shall be utilized by the Bidders when submitting your Bid. Bidders must fully complete all pages of the Bid Forms for Both Bid A and Bid B. Bid forms must be executed by an authorized signatory who has legal authority to make the offer and bind the company. (6 Total Pages)

Reference Contract Documents, Technical Specifications for Force Main 1A, 2A and 16A Replacement Project.

Replace Measurement and Payment pages 45 of 239, 46 of 239, 48 of 239 and 49 of 239 with the revised pages which are made a part of this Addendum No. 2. (4 Total Pages)

Financial Management Department – Purchasing Division
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205
Phone: 941-749-3055 – Fax: 941-749-3034
www.mymanatee.org

LARRY BUSTLE * MICHAEL GALLAN * JOHN R. CHAPPIE * ROBIN DISABATINO * VANESSA BAUGH * CAROL WHITMORE * BETSY BENAC
District 1 District 2 District 3 District 4 District 5 District 6 District 7

Addendum No. 2 is issued to provide replies and to clarify questions received at the Information Conference which was held on December 12, 2012 and emails received from contractors through December 17, 2012.

Q1) Can contractors use C900 PVC for closer between directional bores of HDPE pipe.

A1) C900 PVC may be used for closers and must be fully restrained to the HDPE pipe using County approved restraint systems. HDPE pipe must be terminated with an HDPE flange adapter suitable to affect a fully restrained joint when connecting to valves or fittings. Fittings will be ductile iron with fusion epoxy lining per the specifications.

Q2) A question was raised asking if C900 PVC pipe could be used for open cut construction in the Magellan Drive area where the pipeline alignment curves from approximate station 15+20 to station 23+50? The question also included a comment on the need to install the force main at the depth shown which approaches in some cases 10 feet.

A2) Open cut construction was specified for this location because of the curvature of the roadway in this area and the potential difficulty of maintaining horizontal alignment during direction drilling. During the Information Conference, the Engineer indicated that the design shown on the drawings was based upon an analysis of potential frac-out potential for the soils in question for HDD construction. The Engineer indicated that they would consider revising the depth of cover for pipeline based upon the contractor submitting their specific HDD plan with calculations verifying that construction conducted at the elevations proposed by the contract could be accomplished without frac-out and would be consistent with the need to maintain regulatory clearance between the new force main and other utility infrastructure. C900 PVC may be used for this open cut construction portion of the project.

Q3 A question was raised regarding the timing of connections to existing lift station.

A3 The contract documents stipulate the timing and cost for effecting shut-down of lift stations to interconnect the new force mains. Note 36 on sheet G2 stipulate these requirements. The bidder(s) shall comply with the project specifications regarding the project requirements and special procedure.

Q4 A question was raised regarding the use of "crushed concrete road-base" for restoration.

A4 The definition of "crushed concrete road-base" was not specified in the question. The contractor shall utilize backfill and restoration materials as stipulated in the contract documents and in accordance with County standards. All materials utilized on the project shall be reviewed by the Engineer during the submittal period of the project.

Q5 A question was raised related to the payment for Traffic Control required for the project. Is there a separate pay item for Traffic Control?

A5 No separate pay item is provided for Traffic Control. The cost for Traffic Control shall be included in the pay items for the individual construction items associated with the project. FDOT traffic control guidelines are provided with the drawings. The contractor is responsible for developing specific Traffic Control plans for the means and methods of construction that is planned. The contractor shall retain a Florida registered Professional Engineer to develop specific control plans for approval by the Engineer in accordance with Note 21 on sheet G2 and G4 along with the requirements of the technical specifications.

Q6 A question was raised regarding the note on Drawing C6 calling for a 36 inch casing and the notes on Drawing C13 calling for a 30 inch casing for the crossing of US 41 at 69th Avenue.

A6 The casing size at this location should be 30 inch.

Q7 A question was raised regarding the use of HDPE or PVC fittings at closures.

A7 The project design is based upon using Ductile Iron Fittings with a factory applied fusion epoxy lining per the specifications. **PVC fittings shall not be allowed.**

Q8 A discussion took place on soil testing for the project.

A8 The County will pay for all passing soils testing for compliance with the drawings and specifications. Successful contractor shall coordinate closely with the County during construction to schedule testing per the requirements of the contract documents for all construction.

Q9 A question was raised regarding payment for water for pressure testing.

A9 Successful contractor shall pay for water used during testing. Contractor shall refer to County Standards Detail UW-21 and shall fabricate approved temporary jumpers at locations required and shall pay for water metered and used. Cost to be included in unit price for Pipe Construction.

Q10 Bid Item No. 7, Gravity Sewer Manhole: Bid form and bid item description call out a 4 foot diameter manhole. Plan page C11 calls out a 5 foot diameter manhole. Please advise.

A10 Provide a 5 foot diameter turbulent flow manhole. Bid Item No. 7A shall be revised to read "Furnish and Install 5 foot diameter turbulent flow manhole.

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Q11 Bid Item No. 11, Demolition Force Main Bowlees Creek Crossing: Bid item description conveys a requirement to repaint the existing water line as well as the safety grills on each side. Is there a spec that defines the criteria for this?

A11 Revise the requirements for painting the existing water main located adjacent to the force main being removed at Bowlees Creek Crossing. Coat the existing water main to remain in service per the requirements defined in Attachment 1 to this addendum. Furnish and install two (2) new safety grills on the existing water main to remain in service at the Bowlees Creek crossing per Attachment 2 of this addendum.

Q12 Regarding grouting of existing force main lines, what is the condition of the existing lines and are there any known pressure loss or leakage issues that would hinder the process at 100 psi?

A12 The existing force mains do not have any known leaks. When grouting to fill the existing force main lines, the grouting pressure shall be monitored at all times. As required, contractor shall install relief taps on the existing force mains to demonstrate complete grouting and relieve excessive pressure.

Q13 Can the project Engineer provide specific information pertaining to the vertical locations of the existing force mains throughout the proposed running lines?

A13 The elevations of the existing force mains along the route of construction are shown at select points where the new line is crossing under the existing line. See examples on Sheets C2 and C3.

Q14 Operator Wage Rates: Please provide information pertaining to the specific criteria that classifies equipment type and differentiates between "backhoe/Excavator" and "Trackhoe". Please provide required wage rates and equipment classification criteria for directional bore operations to include Operator, Locator and support personnel.

A14 The Wage Decision Table, General Decision Number FL 120165 (updated 09/29/2012) for Heavy Construction, which includes Sewer and Water Lines, is provided by the Department of Labor. An email has been forwarded to the Department of Labor in order to determine if this information is available for Manatee County.

Q15 Item 7A (Furnish and Install 4 foot Diameter Turbulent Flow Manhole.....I assume this is located at Station 12+12 on plan sheet C11. If in fact that is the one in question, the plan sheet calls for a 5 foot diameter manhole.

A15 See response to question 10 above.

Q16 May Fusible PVC™ be another pipe option available to Bidding Contractors for Bid Items 2A through 2H on the Bid Form?

A16 Fusible PVC will not be allowed as a substitute material for this project.

If you have submitted a bid prior to receiving this addendum, you may request in writing that your original, sealed bid be returned to your firm. All sealed bids received will be opened on the date stated.

END OF ADDENDUM #2

Bids will be received at the **Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205** until **2:00 P.M. on January 24, 2013.**

Sincerely,



Melissa M. Wendel, CPPO, Purchasing Official
Manatee County Purchasing Division

Ov (14 Total Pages Attached)

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District 1 District 2 District 3 District 4 District 5 District 6 District 7

BID FORM
(Submit in Triplicate) (Addendum #2)
Section 00300 (IFB #12-2151-OV)

IFB# 12-2151-OV

BID "A"

FORCE MAIN REPLACEMENT PROJECT (1A, 2A, and 16A) Bradenton, FL
BID "A" Based on Completion time of 365 Calendar Days (Project No.60522.80)

ITEM #	DESCRIPTION	U/M	QTY.	BID PRICE PER UNIT	TOTAL BID PRICE
1	Mobilization - Demobilization	LS	1	\$	\$
2	FURNISH AND INSTALL PIPE				
2A	10 Inch HDPE Pipe - HDD	LF	2362	\$	\$
*2B	10 Inch PVC Pipe - Open Cut (Addendum #2)	LF	502	\$	\$
2C	12 Inch HDPE Pipe - HDD	LF	929	\$	\$
*2D	12 Inch PVC Pipe - Open Cut (Addendum #2)	LF	1104	\$	\$
2E	14 Inch HDPE Pipe - HDD	LF	963	\$	\$
*2F	14 Inch PVC Pipe - Open Cut (Addendum #2)	LF	64	\$	\$
2G	16 Inch HDPE Pipe - HDD	LF	770	\$	\$
*2H	16 Inch PVC Pipe - Open Cut (Addendum #2)	LF	353	\$	\$
3	Furnish and Install Pipe Fittings - Ductile Iron	TON	4.98	\$	\$
4	FURNISH AND INSTALL VALVES				
4A	Furnish and Install 10 Inch Plug Valve	EA	6	\$	\$
4B	Furnish and Install 12 Inch Plug Valve	EA	2	\$	\$
4C	Furnish and Install 14 Inch Plug Valve	EA	3	\$	\$
4D	Furnish and Install 16 Inch Plug Valve	EA	1	\$	\$

Bidder: _____

Authorized
Signature: _____

Bid "A"

00300-3
Add #2

BID FORM
(Submit in Triplicate) (Addendum #2)
Section 00300 (IFB #12-2151-OV)

IFB# 12-2151-OV

BID "A"

FORCE MAIN REPLACEMENT PROJECT (1A, 2A, and 16A) Bradenton, FL
BID "A" Based on Completion time of 365 Calendar Days (Project No.60522.80)

ITEM #	DESCRIPTION	U/M	QTY.	BID PRICE PER UNIT	TOTAL BID PRICE
5	FURNISH AND INSTALL FORCE MAIN CONNECTIONS				
5A	Furnish and Install Connections PS 1A	EA	1	\$	\$
5B	Furnish and Install Connection PS 2A	EA	1	\$	\$
5C	Furnish and Install Connections PS 16A	EA	1	\$	\$
5D	Furnish and Install Connections New Discharge Manhole	EA	1	\$	\$
6	FURNISH AND INSTALL GRAVITY SEWER PIPE				
6A	Furnish and Install 24 Inch PVC Pipe	LS	40	\$	\$
7	FURNISH AND INSTALL GRAVITY SEWER MANHOLE				
*7A	Furnish and Install 5 Foot Diameter Turbulent Flow Manhole (Addendum #2)	LS	1	\$	\$
8	FURNISH AND INSTALL AUGER BORING ROAD CROSSING				
8A	Auger Bore 20" Casing w/10" Carrier Pipe - Pearl Street At US 41	EA	142	\$	\$
8B	Auger Bore 30" Casing w/ 16" Carrier Pipe - 69th Avenue West at US 41	EA	150	\$	\$
9	FURNISH AND INSTALL AIR RELEASE ASSEMBLY	EA	10	\$	\$
10	GROUT ABANDONED PIPELINES				
10A	Grout and Abandon 10 Inch Force Main	LF	2,915	\$	\$

Bidder: _____

Authorized
Signature: _____

Bid "A"

00300-4
Add #2

BID FORM
(Submit in Triplicate) (Addendum #2)
Section 00300 (IFB #12-2151-OV)

IFB# 12-2151-OV

BID "A"

FORCE MAIN REPLACEMENT PROJECT (1A, 2A, and 16A) Bradenton, FL
BID "A" Based on Completion time of 365 Calendar Days (Project No.60522.80)

ITEM #	DESCRIPTION	U/M	QTY.	BID PRICE PER UNIT	TOTAL BID PRICE
10B	Grout and Abandon 12 Inch Force Main	LF	2,050	\$	\$
10C	Grout and Abandon 14 Inch Force Main	LF	4,460	\$	\$
11	Demolition Force Main - Bowless Creek Crossing	LS	1	\$	\$
12	Pavement Restoration	SY	2,458	\$	\$
13	Pavement Restoration - Milling and Overlay	SY	4,350	\$	\$
14	Curb Restoration	LF	3,600	\$	\$
15	DRIVEWAY RESTORATION				
15A	Driveway Restoration - Concrete Driveway	SY	50	\$	\$
15B	Driveway Restoration - Asphalt Driveway	SY	58	\$	\$
15C	Driveway Restoration - Shell Driveway	SY	20	\$	\$
15D	Driveway Restoration - Stone Driveway	SY	20	\$	\$
16	Sidewalk Restoration	SY	71	\$	\$
17	DISCRETIONARY WORK	LS	1		\$160,000.00
	TOTAL BID PRICE "A"- Based On Completion Time of 365 Calendar Days (Addendum #2)				\$

Bidder: _____

Authorized
Signature: _____

Bid "A"

00300-5
Add #2

BID FORM
(Submit in Triplicate) (Addendum # 2)
Section 00300 (IFB #12-2151-OV)

IFB# 12-2151-OV

BID "B"

FORCE MAIN REPLACEMENT PROJECT (1A, 2A, and 16A) Bradenton, FL
BID "B" Based on Completion time of 300 Calendar Days (Project No.60522.80)

ITEM #	DESCRIPTION	U/M	QTY.	BID PRICE PER UNIT	TOTAL BID PRICE
1	Mobilization - Demobilization	LS	1	\$	\$
2	FURNISH AND INSTALL PIPE				
2A	10 Inch HDPE Pipe - HDD	LF	2362	\$	\$
*2B	10 Inch PVC Pipe - Open Cut (Addendum #2)	LF	502	\$	\$
2C	12 Inch HDPE Pipe - HDD	LF	929	\$	\$
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2G	16 Inch HDPE Pipe - HDD	LF	770	\$	\$
*2H	16 Inch PVC Pipe - Open Cut (Addendum #2)	LF	353	\$	\$
3	Furnish and Install Pipe Fittings - Ductile Iron	TON	4.98	\$	\$
4	FURNISH AND INSTALL VALVES				
4A	Furnish and Install 10 Inch Plug Valve	EA	6	\$	\$
4B	Furnish and Install 12 Inch Plug Valve	EA	2	\$	\$
4C	Furnish and Install 14 Inch Plug Valve	EA	3	\$	\$
4D	Furnish and Install 16 Inch Plug Valve	EA	1	\$	\$

Bidder: _____

Authorized
Signature: _____

Bid "B"

00300-6
Add. #2

BID FORM
(Submit in Triplicate) (Addendum # 2)
Section 00300 (IFB #12-2151-OV)

IFB# 12-2151-OV

BID "B"

FORCE MAIN REPLACEMENT PROJECT (1A, 2A, and 16A) Bradenton, FL
BID "B" Based on Completion time of 300 Calendar Days (Project No.60522.80)

ITEM #	DESCRIPTION	U/M	QTY.	BID PRICE PER UNIT	TOTAL BID PRICE
5	FURNISH AND INSTALL FORCE MAIN CONNECTIONS				
5A	Furnish and Install Connections PS 1A	EA	1	\$	\$
5B	Furnish and Install Connection PS 2A	EA	1	\$	\$
5C	Furnish and Install Connections PS 16A	EA	1	\$	\$
5D	Furnish and Install Connections New Discharge Manhole	EA	1	\$	\$
6	FURNISH AND INSTALL GRAVITY SEWER PIPE				
6A	Furnish and Install 24 Inch PVC Pipe	LS	40	\$	\$
7	FURNISH AND INSTALL GRAVITY SEWER MANHOLE				
*7A	Furnish and Install 5 Foot Diameter Turbulent Flow Manhole (Addendum #2)	LS	1	\$	\$
8	FURNISH AND INSTALL AUGER BORING ROAD CROSSING				
8A	Auger Bore 20" Casing w/10" Carrier Pipe - Pearl Street At US 41	EA	142	\$	\$
8B	Auger Bore 30" Casing w/ 16" Carrier Pipe - 69th Avenue West at US 41	EA	150	\$	\$
9	FURNISH AND INSTALL AIR RELEASE ASSEMBLY	EA	10	\$	\$
10	GROUT ABANDONED PIPELINES				
10A	Grout and Abandon 10 Inch Force Main	LF	2,915	\$	\$

Bidder: _____

Authorized
Signature: _____

Bid "B"

00300-7
Add. #2

BID FORM
(Submit in Triplicate) (Addendum # 2)
Section 00300 (IFB #12-2151-OV)

IFB# 12-2151-OV

BID "B"

FORCE MAIN REPLACEMENT PROJECT (1A, 2A, and 16A) Bradenton, FL
BID "B" Based on Completion time of 300 Calendar Days (Project No.60522.80)

ITEM #	DESCRIPTION	U/M	QTY.	BID PRICE PER UNIT	TOTAL BID PRICE
10B	Grout and Abandon 12 Inch Force Main	LF	2,050	\$	\$
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15	DRIVEWAY RESTORATION				
15A	Driveway Restoration - Concrete Driveway	SY	50	\$	\$
15B	Driveway Restoration - Asphalt Driveway	SY	58	\$	\$
15C	Driveway Restoration - Shell Driveway	SY	20	\$	\$
15D	Driveway Restoration - Stone Driveway	SY	20	\$	\$
16	Sidewalk Restoration	SY	71	\$	\$
17	DISCRETIONARY WORK	LS	1		\$160,000.00
	TOTAL BID PRICE "B"- Based On Completion Time of 300 Calendar Days (Addendum #2)				\$

Bidder: _____

Authorized
Signature: _____

Bid "B"

00300-8
Add. #2

1.09

BID ITEM DESCRIPTIONS

The following bid items establish a breakdown of the work to be performed under this project. The bid item description, method of measurement and basis for payment are listed below for each of the bid items that are a part of this project:

- A. Bid Item 1: MOBILIZATION-DEMobilIZATION.
1. Description: The Contractor shall furnish all labor, materials, equipment and services to perform those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site. Also include the costs of bonds, maintenance of traffic for pipe installation and other pre-construction and post-construction expenses necessary for the start and conclusion of the Work under this Contract Item. The cost of all other work as shown, specified, directed or required for the expressed intent of the project that is not specifically included under other Contract Items shall also be included under this Contract Item. The value of Bid Item 1 shall not exceed 10% of the total value of the project.
 2. Measurement and Payment for Mobilization/Demobilization: Shall be made at the Contract Lump Sum Bid Price in accordance with the following schedule:

Table No.1

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum bid price for Mobilization/Demobilization
5	25
10	30
25	40
50	60
75	80
100	100

- B. Bid Item 2A THROUGH 2H: FURNISH AND INSTALL PIPE
1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for installing pipe of the various kinds and sizes called for on the project. Pipe material to be furnished and installed will include high density polyethylene pipe (HDPE) and PVC pipe. Installation shall be by horizontal direction drill (HDD) and open-cut as required by the drawings. The unit price shall include all costs necessary for: piping system construction installation design analysis and submittals: survey layout; pipe materials; pipe joint restraint accessories when required by the location of the pipeline; pipe installation equipment: excavating and backfilling; de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; polyethylene encasement for ductile iron system components (and adjoining valves and fittings) ; tracer wires and appurtenances for non-metallic pipes; locator tape; flushing; testing; restoration of non-paved ground surfaces including grassing; connections to other sanitary force main and pumping station system components; record documentation and all other work necessary, complete.
 2. Measurement: The quantities of pipe to be paid for under this item shall be the length in linear feet of pipe measured horizontally along the centerline of the pipe through valves and fittings in place, complete and accepted by the Owner.

3. Payment: Payment for pipe shall be at the unit price bid for each pipe size, method of installation and material. Payment shall be made under the following Bid Items:
 - a. Bid Item 2A – Furnish and Install 10 Inch HDPE Pipe - HDD
 - b. Bid Item 2B – Furnish and Install 10 inch PVC Pipe – Open Cut
 - c. Bid Item 2C – Furnish and Install 12 Inch HDPE Pipe – HDD
 - d. Bid Item 2D – Furnish and Install 12 Inch PVC Pipe – Open Cut
 - e. Bid Item 2E – Furnish and Install 14 Inch HDPE Pipe - HDD
 - f. Bid Item 2F – Furnish and Install 14 inch PVC Pipe – Open Cut
 - g. Bid Item 2G – Furnish and Install 16 Inch HDPE Pipe – HDD
 - h. Bid Item 2H – Furnish and Install 16 Inch PVC Pipe – Open Cut

C. Bid Item 3: FURNISH AND INSTALL PIPE FITTINGS – DUCTILE IRON

1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for installing pipe fittings and accessories made of ductile iron for use with PVC and HDPE pipe of the various kinds and sizes called for on the project. The unit price shall include all costs necessary for: survey layout; fitting materials; fitting joint connection materials including restraining devices; excavating and backfilling; de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; flushing; polyethylene encasement; connections to other sanitary force main system components; record documentation and all other work necessary, complete.
2. Measurement and Payment: The quantities of fittings to be paid for under this item shall be the weight of the fitting required in tons (2,000 pounds) without accessories, measured in place complete and accepted.

D. Bid Item 4A THROUGH 4D: FURNISH AND INSTALL VALVES

1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for installing valves and appurtenances for use with HDPE pipe and connections to existing lift station piping of the various kinds and sizes called for on the project. The unit price shall include all costs necessary for: survey layout; valves; valve joint connection materials including restraining devices; valve boxes in accordance with County Standard detail US-12; excavating and backfilling; de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; flushing; connections to other sanitary force main system components; record documentation and all other work necessary, complete.
2. Measurement and Payment: Payment for valves shall be at the unit price bid for each valve size, measured in place complete and accepted. Payment shall be made under the following Bid Items:
 - a. Bid Item 4A – Furnish and Install 10 Inch Plug Valve
 - b. Bid Item 4B – Furnish and Install 12 Inch Plug Valve
 - c. Bid Item 4C - Furnish and Install 14 Inch Plug Valve
 - d. Bid Item 4D – Furnish and Install 16 Inch Plug Valve

E. Bid Item 5A THROUGH 5D: FURNISH AND INSTALL NEW FORCE MAIN CONNECTIONS TO EXISTING PUMPING STATIONS AND NEW DISCHARGE MAINHOLE

de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; flushing; testing; connections to other sanitary system components; record documentation and all other work necessary, complete.

2. Measurement and Payment: Payment for manholes shall be at the unit price bid for each manhole, measured in place complete and accepted.

- a. Bid Item 7A – Furnish and Install 5 foot diameter turbulent flow manhole.

H. Bid Item 8: FURNISH AND INSTALL AUGER BORING ROAD CROSSING (JACK AND BORE)

1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for installing Auger Bore (Jack and Bore) road crossings of the various kinds and sizes called for on the project. Auger Bore crossings shall be provided at the locations shown on the drawings and as required by the project specifications and the Florida Department of Transportation Utility Accommodation Manual Appendix A, Section 556 Bore and Jack specifications . The unit price shall include all costs necessary for: auger bore construction installation design analysis and submittals; survey layout; auger bore casing materials and jointing; auger bore carrier pipe materials and jointing; carrier pipe spacers; excavating and backfilling; casing appurtenances; de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; flushing; testing; restoration of non-paved ground surfaces including grassing; connections to other sanitary force main system components; record documentation and all other work necessary, complete.

2. Measurement and Payment: Payment for auger bore crossings shall be the length in feet of auger bore casing and carrier pipe installed measured horizontally along the centerline of the bore at the unit price bid for each location, complete and accepted. Payment shall be made under the following Bid Items:

- a. Bid Item 8A – Auger Bore 20 inch Casing w/10 inch Carrier Pipe - Pearl Street at US 41
 - b. Bid Item 8B – Auger Bore 30 inch Casing w/16 inch Carrier Pipe – 69th Ave West at US41

I. Bid Item 9: AIR RELEASE ASSEMBLY

1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for installing air release assemblies, complete. The unit price shall include all costs necessary for: survey layout; service saddle with corporation stop; piped connection to the air release enclosure; air release valve; air release enclosure; tracer wire and tracer wire test box; excavating and backfilling; de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; flushing; connections to other force main system components; record documentation and all other work necessary, complete. All work shall be in accordance with Manatee County Standard detail US-25.

2. Measurement and Payment: Payment for meter boxes shall be at the unit price bid for each air release assembly, measured in place complete and accepted.
- J. Bid Item 10A THROUGH 10C: GROUT ABANDONED PIPELINES
1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for grouting existing sanitary force main pipelines, complete. The unit price shall include all costs necessary for: survey layout; cutting and plugging existing force mains to be removed from service; removing valves and valve boxes and installing pressure rated plugs and caps as necessary; pumping grout into existing pipelines to be abandoned evacuating air from the pipeline; excavating and backfilling; de-watering; sheeting; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; record documentation on the location of cut and plugged pipelines and pipes grouted and all other work necessary, complete.
 2. Measurement and Payment: Payment for grouting abandoned pipelines shall be at the unit price bid for each size pipe, measured in place complete and accepted. The quantities of grouted pipe to be paid for under this item shall be the length in linear feet of pipe grouted measured horizontally along the centerline of the pipe through valves and fittings in place, complete and accepted by the Owner. Payment shall be made under the following Bid Items:
 - a. Bid Item 10A – Grout 10 Inch Force Main
 - b. Bid Item 10B – Grout 12 Inch Force Main
 - c. Bid Item 10C – Grout 14 inch Force Main
- K. Bid Item 11: DEMOLITION FORCE MAIN – BOWLEES CREEK CROSSING
1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for demolishing the aerial 14 inch ductile iron force main crossing over Bowlees Creek, complete. The lump sum price shall include all costs necessary for: removing pipe, fittings and appurtenances as shown on the drawings; cutting and capping the existing force main on each side of the crossing below grade; removing steel supports and the safety grills located on each side of the crossing; re coating the existing to remain water line crossing the creek and replacing the safety grills on each side of the water main crossing; shoring; bracing; temporary barricades; traffic and pedestrian control; temporary trench covers; right-of-way protection; record documentation and all other work necessary, complete.
 2. Measurement and Payment: Payment for force main demolition shall be at the lump sum price bid for this item, measured in place complete and accepted.
- L. Bid Item 12: TRENCH PAVEMENT RESTORATION
1. Description: Under this contract Pay Item, the contractor shall furnish all labor, equipment and materials required for pavement repair and restoration, associated with the work on the project, complete. The unit price shall include all costs necessary for: survey layout; removing and disposing of existing pavement and sub-base materials; saw cutting existing pavement edges to un-disturbed sub-base; furnishing and placing new sub-base and base material, restoring existing pavement over the full length and width of the impacted area with type S-III asphalt with a thickness equal to the thickness of the pavement removed or 1 ½ inches completed thickness,

Attachment No. 1 – Coating Requirements for Existing Water Main Crossing Bowlees Creek

Manufacturers and Products

Restoration of the piping shall be as prescribed by good industry practices per the Steel Structures Painting Council (SSPC) and the National Association of Corrosion Engineers (NACE) and in accordance with manufacturers' recommendations. Acceptable manufacturers: Carboline; TNE MEC Series 66; or comparable.

- a. All materials and equipment required for the work shall be of first class quality and shall be furnished, applied, and finished in every detail and shall comply with recommendations of the paint manufacturer.
- b. Use skilled personnel trained and experienced in the necessary trades and who are familiar with the specified requirements and methods needed for proper performance of the Work.
- c. Comply with the most current codes and regulations of governmental agencies having jurisdiction.

Surface Preparation

- a. Remove all dirt, dust, oil, mold, salts, and other contaminants and loose old coatings by high pressure water blast cleaning (minimum 3000 psi, 3 to 5 gallons per minute, potable water) and hand or power scraping of water lines. Chemical agent may be used to insure complete removal.
- b. Remove all remaining loose coatings and loose rust by either spot blasting (SSPC-SP7) or by hand or power tool cleaning (SSPC-SP2 or SP3). Loose coatings must be contained because of hazardous materials.
- c. All surfaces must be clean and dry prior to the application of any coatings. The test of chloride contamination is needed after surface preparation, before the application of any primer coat, and in between additional coats (10-20 ppm Chlorides as the maximum level). Salt removing products, such as Chlor*rid or equivalent, must be used if chloride is present prior to first coat and between following coats.
- d. Coatings must be applied as soon as possible and always the same day as surface preparation.

Coating System

- a. Spot prime all areas of bare metal with Tnemec Series 135 Chembuild or equivalent at a dry film thickness of 3.0-5.0 mils.
- b. Apply to all surfaces one full coat of Tnemec Series 135 Chembuild or equivalent at a dry fill thickness of 3.0-5.0 mils.
- c. Apply one full finish coat of Tnemec Series 73 Endurashield or equivalent at a dry fill thickness of 2.5-4.0 mils. (Finish coat must be guaranteed against fading and chalking from UV.)

NOTE: If any chlorides are present, salt removing products must be used.

- d. The last 6' of pipe at each side of inter-coastal waterway must be surface prepped as stated above and.
 - 1. Two coats of Macropoxy HSB58-400 or equivalent at a dry fill thickness of 6.0-12.0 mils total.
 - 2. Two coats of Corothane I HS Aliphatic finish coat B65-50 or equivalent at a dry NI thickness of 4.0-6.0 mils total.

Requirements

- a. Vendor shall obtain all primer and paint from one manufacturer and will allow each coat of primer and /or paint to dry per manufacturer's recommended time period.
- b. The paint thickness designated and/or the number of coats to be applied shall not be decreased and shall be increased where required
- c. There shall not be a change to the type of coating specified Manufacturer recommendation as to which finish coat should be used with a particular primer shall be observed. d All paint shall be mildew resistant and non-chalking

REQUIREMENTS (cont'd)

- e. All surfaces to **be** painted shall be prepared in a manner with the objective of a smooth, clean, dry surface upon completion.
- f. All **surfaces to be painted shall be prepared** in a manner with the **objective** of a smooth, clean, dry surface upon completion
- g. Surface preparation for miscellaneous surfaces to be painted, not specifically covered in theses specifications, shall be recommended by manufacturer of **paint selected**.
- h. Preparation and cleaning procedures shall **be** in accordance with coating manufacturer's instructions and proper **implements**.

CLEANUP

The vendor's equipment shall be maintained and removed without damage to the pipe and structures.

The vendor is responsible for the removal and proper disposal of all **debris and** hazardous materials **from the** work area in accordance with local, state, and **federal requirements as outlined** by the Environmental Protection Agency with certification provided by the vendor to the County of such.

PERMITS, LICENSES, AND REGULATIONS

Any permits or **licensing necessary for** the progression of the Work shall be secured and paid for by the vendor. The vendor shall assure compliance with any and all OSHA, EPA, and/or federal, state, or local rules and regulations.

ATTACHMENT 2:

SAFETY GRILL TO BE INSALLTED AT THE NORTH AND SOUTH END OF EXISTING WATER MAIN CROSSING AT BOWLEES CREEK

