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Solicitation Addendum

Addendum No.:	2
Solicitation No.:	20-TA003433SAM
Project No.:	6078070
Solicitation Title:	69 TH Avenue Water Main Loop
Addendum Date:	August 24, 2020
Procurement Contact:	Sherri Meier

IFBC No. 20-TA003433SAM 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 IFBC No. 20-TA003433SAM.

REPLACE:
SECTION B, APPENDIX K, BID PRICING FORM

Replace Section B, Appendix K, Bid Pricing Form with Bid Pricing Form Revised as an attachment to this Addendum No. 2.

REPLACE:
BID PRICING FORM (FILLABLE)

Replace Bid Pricing Form (Fillable) Form with the Bid Pricing Form (Fillable) Revised as a separate attachment to this Addendum No. 2.

REPLACE:
SECTION C, BID ATTACHMENTS, BID ATTACHMENT 2 – TECHNICAL SPECIFICATIONS, SECTION 01150 MEASUREMENT AND PAYMENT, PAGES 31 THROUGH 41

Replace Section C, Bid Attachments, Bid Attachment 2 – Technical Specifications, Section 01150 Measurement and Payment, Pages 31 through 41 as attached to this Addendum No. 2.

REPLACE:
SECTION C, BID ATTACHMENTS, BID ATTACHMENT 2 – TECHNICAL SPECIFICATIONS, SECTION 02800 TRACER WIRE SYSTEM, PAGES 189 & 190

Replace Section C, Bid Attachments, Bid Attachment 2 – Technical Specifications, Section 02800 Tracer Wire System, Pages 189 & 190 as attached to this Addendum No. 2.

REPLACE:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 3 – PLANS/DRAWINGS, PLAN SHEET #12

Replace Section C, Bid Attachments, Bid Attachment 3- Plans/Drawings, Plan Sheet #12 as a separate attachment to this Addendum No. 2.

ADD:

SECTION C, BID ATTACHMENTS, BID ATTACHMENT 5 – GEOTECH REPORT

Add Section C, Bid Attachments, Bid Attachment 5 – GeoTech Report as a separate attachment to this Addendum No. 2.

QUESTIONS AND RESPONSES:

Q1. Please confirm whether or not there are GTE/Frontier lines installed down the center lane of US 41 on Sheet 6.

R1. Available as-built information show the Frontier lines were installed on the east lane of US 41 as shown on Plan Sheet 6.

Q2. Please show roadway restoration associated with the required hard locates on all utilities within US 41 for the directional drill on Sheet 6.

R2. Hard locates shall be performed outside of US 41 travel lanes. The hard locate pits shall be restored with 2 inches of Type S-I Structural Course patches. No milling will be required. Payment for roadway asphalt patch restoration associated with the required hard locates shall be included in horizontal directional drilling bid items 14 and 15. Refer to revised Specification Section 01150 Measurement and Payment.

Q3. Please clarify the clearing and grubbing pay item. Will mature trees with 6+ inch diameter be expected for removal? If yes, please clarify if a tree permit will be required. Also, if yes, please clarify if a new tree will be required for replacement.

R3. The Contractor will be responsible for determining what trees will need to be removed. Trees within the right-of-way will not have to be replaced. Trees within private property that are injured will have to be replaced and the cost of replacement shall be borne by the Contractor. No tree permits are required for CIP projects.

Q4. It appears irrigation repairs within the ROW will likely be required at several residences. Please add a pay item to account for this work.

R4. All irrigation system repairs due to the pipeline installation shall be included under pipeline installation bid items 9 – 16. All irrigation system repairs due to the water meter box relocations shall be included under water service bid items 44 – 49. Refer to revised Specification Section 01150 Measurement and Payment.

Q5. Please confirm whether or not landscaping within the ROW will be required for replacement.

R5. Landscaping replacement within the ROW due to pipeline installation will not be required. Landscaping replacement within the ROW due to water meter box relocation is required and included under water service bid items 44 – 49.

Q6. What work, if any, will be required by a licensed plumber?

R6. The Contractor shall hire a Florida licensed plumber to perform work associated with the backflow preventer installation and water service reconnection, which will occur on private property. The water meter boxes will be relocated to the right-of-way line.

Q7. Please consider separating out relocation of backflow prevention devices from the water services.

R7. Please bid the project as shown in the plans and on the bid form

Q8. Please confirm the requirements for replacing ornamental and/or concrete post type mailboxes.

R8. Ornamental and/or concrete type mailboxes shall be temporarily removed and reinstalled in order to avoid damage. Each temporary relocation shall be paid for under bid item 51 “Mailbox Removal and Replacement”.

Q9. Please reference approximate STA 83+00 on Sheet 16. It appears new power poles have been recently installed in conflict with the work. Please review and provide clarification on design, as necessary.

R9. Contractor shall protect and support power/light poles during the installation of water main as necessary to prevent undermining of structure. Payment for this shall be included in pipeline installation bid items 9-16. Refer to revised Specification Section 01150 Measurement and Payment.

Q10. Will a construction field office be required?

R10. A construction field office will not be required.

Q11. Please provide a geotechnical report, if available.

R11. See attached available geotechnical report for the project.

Q12. Please confirm which permits are expected to be provided by the Contractor and provide their associated costs.

R12. Contractor is responsible for identifying permits required for the project.

Q13. Please provide existing pipe type at all tie-in and grouting locations.

R13. Existing pipe types at all tie-in and grouting locations are unknown. Contractor will be responsible for field verifying existing pipe prior to ordering material.

Q14. Reference plans, sheet 2, GENERAL, Note 3, will this be the Edition of the Standards that require the well point holes be filled with non-shrink grout or concrete? Please confirm.

R14. Yes, the latest edition of the Manatee County Utility standards will apply for this project.

Q15. Reference specifications, APPENDIX A, MINIMUM QUALIFICATIONS, par. 4, the July 31, 2017 time constraint is too tight and should be expanded to accommodate ten (10) years not three (3), please relax the time constraint.

R15. Please bid the project as shown in the plans and on the bid form with the posted time constraint.

Q16. Reference specifications, SECTION 01590, COUNTY'S FIELD OFFICE, is this really necessary, it is a waste of taxpayer's money and should be eliminated from the specifications. Please remove.

R16. County's field office will not be required.

Q17. Reference specifications, Section 02617, page 146/256, PART 3, EXECUTION, par. 3.03, SURVEY MARKINGS, sub-paragraphs A – D, are all these 2" PVC pipe or 2"x4" markers necessary for this job, as these markers are ideally suited for site development work at new subdivisions, please clarify.

R17. Yes, survey markers will be required for this project.

Q18. Reference specifications, Section 02800, TRACER WIRE SYSTEM, page 190/256, par. 2.04, GROUNDING ANODE, please provide a detail for this and specify manufacturers components as this material is not available on the County's "UTILITY APPROVED PRODUCT LIST".

R18. Grounding anode will not be required for this project. Please see revised Specification Section 02800 Tracer Wire System.

Q19. Reference specifications, Section 02800, TRACER WIRE SYSTEM, page 190/256, PART 3, EXECUTION, par. 3.01, GENERAL, sub-par. E., according to this paragraph we are now to include installing a “trace wire access box” at the end of each water service is this correct? If so, please provide a detail that will show the proximity of the “trace wire access box” to the meter box and will a grounding anode be required?

R19. Tracer wire shall terminate at the end of each water service as shown on Plan Sheet 24, County Detail UW-24. No access box and grounding anode will be required for water service laterals. Please see revised Specification Section 02800.

Q20. Reference specifications, Section 02617, page 150/256, par. 3.07, DETECTION, sub-par. A, are we to include installing both the 6-inch wide marking tape and the Tracer Wire System described in Section 02800?

R20. Correct, both marking tape and tracer wire shall be installed for the water main installation.

Q21. With regard to the 6-inch wide marking path tape, will the Contractor have to demonstrate to the inspector that the markers embedded in the tape are functional after placement of backfill and surface restoration? If so, please provide a bid item to compensate Contractor for the cost to purchase the equipment from 3M to perform this test.

R21. The Contractor will have to demonstrate to the inspector that the electronic path marking tape functions after placement of backfill and/or surface restoration. The cost for testing equipment shall be included in the pipeline installation bid items 9 – 16.

Q22. Please provide soil borings at each directional drill location.

R22. See attached available geotechnical report for the project.

Q23. Reference plan sheet 3, UTILITY LOCATION table, DESIGNATION VVH 105 is described as 12” DIP WM, but on plan sheet 6 at approximately station 3+05, VVH 105 is plotted over the existing 10” force main, has this been inaccurately plotted on sheet 6? Please review.

R23. The existing 12” water main and the existing 10” force main have been plotted using the best available as-built information. The location of the utilities shown on the plans (including those designated with VVHs) are based on limited investigation techniques and should be considered approximate only.

Q24. Reference plan sheet 16, the “CUT AND CONNECT TO EXISTING 8” WATER MAIN” at the SE corner of 5th Street West and 67th Avenue West, what kind of pipe material is the existing 8-inch water main?

R24. Pipe material is unknown.

Q25. Reference Bid Form, Pay Item 10, bid quantity shows 70LF, plans show 45LF, please review.

R25. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q26. Reference plan sheet 15, the note that reads, “PAVE AREA FOLLOWING WATER MAIN INSTALLATION (SEE DETAIL ON SHEET 23), there are several details on sheet 23, which one applies to this note?

R26. Contractor shall pave area depicted on Plan Sheet 15 per Local Urban Residential Detail 401.8 on Plan Sheet 23.

Q27. Reference plan sheet 15, the note that reads “PAVE AREA FOLLOWING WATER MAIN INSTALLATION (SEE DETAIL ON SHEET 23), what are the limits of the paving work for this note?

R27. The limits of the paving work are shown on Plan Sheet 15 with a hatch with diagonal lines rotated at a 45 degree angle counterclockwise.

Q28. Reference plan sheet 6, at the west side of U.S.-41 on 69th Avenue West there are existing features found in the field that are not shown on the plans, can the topography at the west side of U.S.-41 be updated to include features such as the fire hydrant, power pole, reclaimed water valve box, water valve box and a sanitary manhole that possibly houses an air relief valve on the 16-inch force main? Having these items plotted on the plan view of sheet 6 will help to better identify the location of where the new 12-inch water main is to be installed.

R28. Contractor shall use available survey and alignments marked by the surveyor once the project is awarded to install the pipeline.

Q29. Reference plan sheet 21, the milling and overlay work at 5th Street West may possibly damage the signalization loops that are not visible in the asphalt surface but are presumed to be there, please tell us what size these loops are so provisions in our bid can be made to cover costs to replace them, unless the County is going to replace them. Please clarify.

R29. As-built information shows signalization loop size to be 1.25” diameter. This loop diameter has not been verified and it is approximate only. The Contractor shall replace any damaged signalization loops at no additional expense to the County, regardless of diameter size encountered.

Q30. Reference plan sheet 12, the note that reads “PROPOSED SINGLE SHORT WATER SERVICE (TYPICAL OF 3)” plan sheet 12 shows one (1) short water service, where are the other two (2)? Please review.

R30. There is only one (1) single short water service on Plan Sheet 12. Please referenced the revised Plan Sheet showing this change.

Q31. Reference bid form, Pay Item 44, Single Short Water Service, bid quantity shows 24-each, plans show 20-each, please review.

R31. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q32. Reference bid form, Pay Item 45, Double Short Water Service, bid quantity shows 8-each, plans show 6-each, please review.

R32. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q33. Reference bid form, Pay Item 46, Single Short Water Service W/Casing, bid quantity shows 7-each, plans show 5-each, please review.

R33. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q34. Reference bid form, Pay Item 47, Single Long Water Service W/Casing, bid quantity shows 34-each, plans show 32-each, please review.

R34. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q35. Reference bid form, Pay Item 48, Double Short Water Service W/Casing, bid quantity shows 3-each, plans show 1-each, please review.

R35. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q36. Reference bid form, Pay Item 49, Double Long Water Service W/Casing, bid quantity shows 12-each, plans show 9-each, please review.

R36. Additional bid quantities were included in the bid form to mitigate for unknown conditions.

Q37. There is a specification Section 01590 County’s Field Office, but there is no bid form line item for this. Is a field office required for this project? With the area being

built-out and the project being linear there is really not a feasible location for a field office.

R37. County field office will not be required for this project.

Q38. Streets and/or lanes will need occasional closure. Does this project have closure pre-approval or will the contractor have to submit closure requests to the County and FDOT?

R38. Contractor will have to submit road closure requests to the County and FDOT.

Q39. Reference plan sheet 22, there are no pay items in the Bid Form to compensate the Contractor for replacing the different types and thicknesses of asphalt the F.D.O.T. will require for surface restoration and Index 125-001 only tells us to match what is existing. Well, we have no idea what the F.D.O.T. has in U.S.-41 and since there are no pay items how is the Contractor to include costs for restoration work at this location? Please add appropriate bid items for F.D.O.T. asphalt replacement.

R39. Bid form has been revised to include a lump sum bid item for the FDOT asphalt replacement. The closest FDOT core data shows a 4.1 inch pavement layer. The Contractor shall bid the project using 1.5 inch of friction course asphalt type FC 12.5, 3 inches of structural course asphalt type SP 12.5, Optional Base Group 9, and 12" Type-B stabilized subgrade for full road restoration. Milling of adjacent roadway shall include milling and overlaying 1.5 inch of friction course asphalt type FC 12.5.

Q40. Page 93/384 in Specification: Fire Hydrant assembly states to include gate valve, but not clear if to include pipe and tee. Please clarify.

R40. Fire Hydrant assembly includes, but is not limited to, gate valve, pipe, and tee.

Q41. Page 95/384 in Specification: Bid Item #58 Select Common Fill – There are differing descriptions of work between Bid Form, Measurement & Payment, and Section 0221-2.01 (E)). Please clarify.

R41. Road restoration shall use selected common fill per Specification Section 02210, 2.01(E). Refer to the revised measurement and payment section.

Q42. Page 177/384 in Specification: 02513 Asphalt – Section 2.03 Pavement Markings – Please advise if payment markings will be required. If required, please provide a pavement marking plan and a manner in which they will be paid.

R42. Contractor will be responsible for replacing pavement markings to match existing conditions. Pavement markings is considered incidental work to the road restoration and shall be included in the friction course overlay bid item 61.

Q43. Page 189/384 in Specification: 02575 Pavement Repair – Section 2.01 (B); This section indicates asphalt base to be 6”, and crush crete base to be 10”. The Bid Form indicates 8” crush crete base. Please clarify.

R43. Crushed concrete base shall be 8 inches thick per Detail UG-12 in the Contract Plans.

Q44. Typical Plan Sheet – Full Roadway Restoration – Typical of others, Sheet 6 at sta. 4+00 shows partial (trench patch) restoration. Conversely, Sheet 7 at sta. 6+00 shows full lane width restoration. Customary to the industry is typically what is shown on Sheet 6: Patch the pipe trench to get traffic back on it, then when done mill and resurface the whole project. Please clarify the intent of the work.

R44. The intent of road restoration for this project is to restore the roads as promptly as possible after the pipe has been installed and tested while not exceeding the bid quantities. Contractor is to determine the means and methods in order to restore roads per the Detail UG-12 and UG-12B in the Contract Plans.

Q45. There does not appear to be any requirement for subgrade stabilization. Please confirm.

R45. Subgrade shall be compacted to 98% density per AASHTO-180 as shown on detail UG-12 and UG-12B in the Contract Plans. Subgrade stabilization for pipelines installed in roadway shall be paid for under Bid Item 58 Selected Common Fill.

NOTE: Items that are ~~struck through~~ are deleted. Items that are underlined have been added or changed. All other terms and conditions remain as stated in the IFBC.

END OF ADDENDUM

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.

AUTHORIZED FOR RELEASE

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 - 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. 4 - 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. 5 - 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. 6 - 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 NO. 7 - 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. 8 - PIPELINE TESTING

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for test pigging, pressure testing, Bacteriological sampling and testing the proposed water main, and coordination with the Engineer/FDEP for pipeline clearances. 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. No additional payment will be made for additional testing due to faulty work by the Contractor.

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 - DI CLASS 350 PIPE (OPEN CUT)

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 Ductile Iron Pipe (AWWA A21.50 and A21.51, and ANSI C150 and C151) as shown on the Contract Drawings and listed in the Bid Form. The thickness of pipe shall be pressure Class 350. Measurement and Payment shall be made for the actual length of the listed diameter pipe installed and will represent full compensation for all labor, materials including pipe bell joint restraints, tracer wire, marking tape, excavation, including rock, dewatering, bedding, backfill, compaction, polyethylene wrapping, and equipment required to complete these Bid Items, including removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. Payment shall also include locating of existing utilities in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, irrigation systems required to construct the pipeline. No additional compensation will be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill materials, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
9	12" DI Class 350 Pipe (Open Cut)	LF
10	8" DI Class 350 Pipe (Open Cut)	LF
11	6" DI Class 350 Pipe (Open Cut)	LF
12	4" DI Class 350 Pipe (Open Cut)	LF

BID ITEM - PVC DR 18 PIPE

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 PVC water main (AWWA C900-16 DR 18) 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 including pipe bell joint restraints, tracer wire, marking tape, excavation, including rock, dewatering, bedding, backfill, compaction, and equipment required to complete these Bid Items, including removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. Payment shall also include locating of existing utilities in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, and irrigation systems required to construct the pipeline. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
13	12" PVC C900 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 mandrel 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 MJ adapter with ductile iron gland and blue fluoropolymer coated high-strength low alloy steel conforming to AWWA C111 or 316 stainless steel hardware), end seals, grout, dual tracer wires, mud trailer, removal of drilling mud, and equipment required to complete these Bid Items. Payment shall also include locating of existing utilities and restoration in the project area. Included in these bid items are the removal and replacement of existing roadway signs, traffic signalization loops, and irrigation systems required to construct the pipeline. Payment shall also include removal of existing abandoned pipelines and protecting and supporting power/light poles that may be in conflict with the pipeline construction. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM	DESCRIPTION	UNITS
14	12" HDPE DR 11 Pipe (HDD)	LF
15	20" HDPE DR 11 Pipe (HDD)	LF

BID ITEM NO. 16 - 2" PE SDR 9 PIPING (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 PE SDR 9 water main as shown on the Contract Drawings and listed on the Bid Form.

Measurement and Payment shall be made for the actual length of pipe installed, and will represent full compensation for all labor, materials, excavation, including rock, dewatering, bedding, backfill, compaction, testing, appurtenances including adapters, service saddle, corporation stop, tracer wire, and equipment required to complete these Bid Items. Payment shall also include locating of existing utilities in the project area. No additional compensation shall be made for excavation below the bottom of the pipe, for rock removal or bedding and backfill material, or for repair of any trench settlement.

BID ITEM - DUCTILE IRON 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 double-cement lined ductile iron fitting 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. Included under these Bid items are mechanical joint restraints and blue fluoropolymer-coated high-strength low alloy steel conforming to AWWA C111 or uncoated 316 stainless steel hardware, as well as polyethylene wrapping all fittings and restraints.

BID ITEM	DESCRIPTION	UNITS
17	12" DI Fitting - 90 Deg	EA
18	12" DI Fitting - 45 Deg	EA
19	12" DI Fitting - 22.5 Deg	EA
20	12" DI Fitting - Tee	EA
21	12" DI Fitting - MJ Sleeve Adapter	EA
22	12" x 8" DI Fitting - Tee	EA
23	12" x 6" DI Fitting - Tee	EA
24	12" x 6" DI Fitting - Reducer	EA
25	12" x 4" DI Fitting - Tee	EA
26	12" x 4" DI Fitting - Reducer	EA
27	8" DI Fitting - 45 Deg	EA
28	6" DI Fitting - 45 Deg	EA
29	4" DI Fitting - 45 Deg	EA
30	4" DI Fitting - Blind Flange w/ 2" Threaded Port	EA

BID ITEM - GATE VALVES

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each valve for furnishing and installing the listed diameter valve, box, cover, concrete pad, and tracer wire test station box, 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, polyethylene wrapping all valves, testing and disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
31	12" Gate Valve	EA
32	8" Gate Valve	EA
33	6" Gate Valve	EA
34	4" Gate Valve	EA
35	2" Gate Valve	EA

BID ITEM - CUT AND CONNECT TO EXISTING WATER MAIN

Payment for all work included, but is not limited to, under these Bid Items shall represent full compensation in accordance with the unit bid price for each proposed connections to water mains. Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the bid price for all labor, additional necessary ductile iron fittings not shown in the Contract Drawings, thrust blocks, excavation, dewatering, bedding, backfill, compaction, testing, and equipment.

BID ITEM	DESCRIPTION	UNITS
36	Cut and Connect to Existing 12" Water Main	EA
37	Cut and Connect to Existing 8" Water Main	EA
38	Cut and Connect to Existing 6" Water Main	EA
39	Cut and Connect to Existing 4" Water Main	EA

BID ITEM NO. 40 - GROUT FILL & ABANDON EXISTING PIPELINES

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 pipelines to be deactivated. Payment will include all equipment, labor, fittings including ductile iron caps and plugs, restraints, decommissioning valves which include closing the valve and removing the valve boxes, stems, and lids, removal of disconnected pipeline segments or valves as shown in the Contract Drawings, thrust blocks, temporary connections, flushing of existing pipelines, line-stops as necessary, concrete as necessary, and appurtenances required to abandon the existing mains in accordance with County standards.

BID ITEM NO. 41 - FIRE HYDRANT ASSEMBLY

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each hydrant assembly, including 6" hydrant lead including hydrant elbow, ductile iron fitting, gate valve, box cover, concrete pads, restraining rods and/or thrust blocks, as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, polyethylene wrapping all buried pipe, fittings, and valves, testing and disinfection required to complete this Bid Item.

BID ITEM NO. 42 - FIRE HYDRANT ASSEMBLY WITH 90 DEG LOCKED BEND

Payment for all work included in this Bid Item shall be made at the applicable Contract unit

price bid per each hydrant assembly, including 6" hydrant lead including hydrant elbow, ductile iron fitting, ductile iron 90 deg locked bend, gate valve, box cover, concrete pads, restraining rods and/or thrust blocks, as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, polyethylene wrapping all buried pipe, fittings, and valves, testing and disinfection required to complete this Bid Item.

BID ITEM NO. 43 - REMOVAL OF FIRE HYDRANT ASSEMBLY

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each fire hydrant that is inactivated including removal of the fire hydrant, hydrant stand pipe and shoe, box cover, concrete pads, as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, equipment, excavation, including rock, bedding, backfill, compaction, testing and disinfection required to complete this Bid Item.

BID ITEM - SINGLE AND DOUBLE WATER SERVICES

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid for each service type for furnishing and installing the listed blue-coded single and double water service lines, both short and long side, as listed on the Bid Form. Included in this bid item is the removal, relocation, and reconnection of water meter and meter boxes that do not meet the County standards. If the relocated meter was connected to a backflow preventer assembly, the Contractor shall remove, relocate, and reconnect the assembly at the new meter location as well. The assembly removal, relocation, and reconnection shall be paid for under these bid items. The meter and backflow prevention assembly relocations shall be coordinated with the County Inspector and residential homeowner in order to meet County standards. All pipe, fittings, connections, concrete pads, irrigation system and landscape restoration required to perform the complete removal, relocation, and reconnection to the private property service line are included in this pay item.

Water service casing is required on all roadway crossings and shall extend outside pavement edge per County standard details. These bid items include, but are not limited to, service saddle, corporation stop, piping, casings (if required), and ancillary fittings. Payment shall represent full compensation for all labor, material, excavation, including rock, bedding, backfill, compaction, testing and disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
44	Single Short Water Service	EA
45	Double Short Water Service	EA
46	Single Short Water Service w/ Casing	EA
47	Single Long Water Service w/ Casing	EA
48	Double Short Water Service w/ Casing	EA
49	Double Long Water Service w/ Casing	EA

BID ITEM NO. 50 - 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. 51 - MAILBOX REMOVAL AND REPLACEMENT

Payment for all work included in this Bid Item shall be per each mailbox removed and replaced/relocated as shown in the construction plans. Payment shall represent full compensation for all labor, excavation, compaction, material, preparation, installation and equipment required to complete this Bid Item.

BID ITEM NO. 52 - RESIDENTIAL LIGHTPOLE REMOVAL AND REPLACEMENT

Payment for all work included in this Bid Item shall be per each residential lightpole removed and replaced/relocated as shown in the construction plans. Payment shall represent full compensation for all labor, excavation, compaction, material, preparation, installation and equipment required to complete this Bid Item.

BID ITEM NO. 53 - 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 and the Specifications herein.

BID ITEM - DRIVEWAY RESTORATION

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per square yard of driveway restoration as listed on the Bid Form. Measurement of driveway restoration will be per the actual number of square yards of concrete, asphalt, brick, or shell driveway repaired. Payment shall represent full compensation for all labor, materials and equipment for cutting the edges of existing driveways, compacting subgrade, furnishing and installing the concrete, asphalt, brick, or shell, 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. Driveways shall be repaired to match existing thicknesses or thicknesses specified in the Contract documents, whichever is greater.

BID ITEM	DESCRIPTION	UNITS
54	Concrete Driveway Repair	SY
55	Asphalt Driveway Repair	SY
56	Brick Driveway Repair	SY
57	Shell Driveway Repair	SY

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 selected common fill, crushed concrete, milling and asphaltic concrete, for the roadway restoration related to the subsurface utility construction 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. Contractor will only be paid for the thicknesses specified in these bid items. No additional payment will be made for restorations beyond the specified thicknesses. Contractor shall restore pavement markings to match existing conditions and paid for as part of the friction course overlay bid item.

BID ITEM	DESCRIPTION	UNITS
58	Selected Common Fill	CY
59	Crushed Concrete Base, 8" Thick	SY
60	Asphaltic Concrete Structure Course - Type S-I, 1-1/4" Thick	TN
61	Friction Course Overlay - Type S-III, 3/4" Thick	TN
62	Milling	SY

BID ITEM NO. 63 - SURFACING OF UNPAVED LOCAL URBAN RESIDENTIAL ROAD

Payment for all work included in this Bid Item will be made at the applicable Contract unit bid price per square yard listed for the surfacing of an unpaved local urban residential road as listed on the Bid Form. Payment shall represent full compensation for all labor, materials including stabilized sub-base, base course, asphaltic concrete, and equipment for cutting the edges of existing roadway, compacting subgrade, grading, furnishing and installing the sub-base, base course, and asphaltic concrete and all incidentals necessary to complete the roadway surfacing as shown on the Contract Drawings per detail 401.8 and included in the Specifications, all ready for approval and acceptance by the County.

BID ITEM NO. 64 - REMOVE AND REPLACE CURB

Payment for all work included in this Bid Item will be made at the applicable Contract unit price bid per linear foot for removal of existing curbing and for furnishing and placing the same type of curb. Measurement will be per actual number of linear feet of curbing installed. Payment shall represent full compensation for removal of existing curb and all labor, material and equipment for compacting subgrade, forming, furnishing, placing the concrete, and finishing as specified and all incidentals necessary for completion of this Bid Item, ready for approval and acceptance by the County.

BID ITEM - REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL

Payment for all work included in these Bid Items will be made at the applicable Contract unit price listed below for removal and replacement of unsuitable material encountered during excavation for pipeline installation; including but not limited to muck, debris, stone, concrete, and shell. Payment shall represent full compensation for all labor, materials, equipment, and dewatering for properly removing and disposing of all unsuitable material, including the import of suitable backfill material. Contractor shall notify Owner/Engineer when unsuitable materials are encountered. Contractor shall provide backup documentation (load tickets) to County Inspector at time of export or import of material.

BID ITEM	DESCRIPTION	UNITS
65	Removal of Unsuitable Material	CY
66	Import of Suitable Backfill	CY

BID ITEM NO. 67 - FDOT ROAD RESTORATION

Payment for all work included in this Bid Item will be made at the applicable Contract lump sum bid for the restoration of FDOT road as listed on the Bid Form and shown in the Contract Drawings. Payment shall represent full compensation for all labor, materials including 12" Type B stabilized sub-base, Optional Base Group 9, 3" of structural course asphalt type SP-12.5, 1.5" of friction course asphalt type FC-12.5, and equipment for cutting the edges of existing roadway, compacting subgrade, grading, furnishing and installing the sub-base, base course, and asphaltic concrete, matching pavement markings to existing conditions, and all incidentals necessary to complete the roadway surfacing as shown on the Contract Drawings per FDOT Index 125-001 and included in the Specifications, all 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. 68 - CONTRACT CONTINGENCY

Payment for all work under this Bid Item shall be made only at the County's discretion. This Bid Item shall not exceed 10% of the Bidders Total Base Bid. The Bidder shall calculate and enter a dollar amount for this Bid Item.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 02800 TRACER WIRE SYSTEM

PART 1 GENERAL

1.01 SCOPE

The Contractor shall furnish all labor, materials, equipment and incidentals required to install a complete tracer wire system as specified in this section.

PART 2 PRODUCTS

2.01 TRACER WIRE

- A. Open trench pipeline construction shall require the installation of minimum #10 AWG Copper Clad, High Strength Steel tracer wire with minimum 448 lb break load, with a minimum 30 mil HDPE insulation thickness.
- B. Directional Drilling/Boring pipeline construction shall require the installation of minimum #10 AWG Copper Clad, Extra High Strength Steel tracer wire with minimum 1,940 lb break load, with a minimum 45 mil HDPE insulation thickness.
- C. Tracer wire products shall be per the latest edition of the County's Approved Products List

2.02 CONNECTORS

- A. All mainline trace wires must be interconnected in intersections, at mainline tees and mainline crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At crosses, the four wires shall be joined using a 4-way connector. Use of two 3-way connectors with a short jumper wire between them is an acceptable alternative.
- B. Direct bury wire connectors shall include 3-way lockable connectors and mainline to lateral lug connectors specifically manufactured for use in underground trace wire installation. Connectors shall be dielectric silicon filled to seal out moisture and corrosion, and shall be installed in a manner so as to prevent any uninsulated wire exposure.
- C. Non-locking friction fit, twist on, or taped connectors are prohibited.
- D. Connector products shall be per the latest edition of the County's Approved Products List

2.03 TRACER WIRE BOXES

- A. All tracer wire termination points must utilize an approved trace wire access box per the latest edition of the County's Approved Products List.
- B. All grade level/access boxes shall be appropriately identified with "sewer", "reclaimed" or "water" cast into the cap and be color coded.
- C. A minimum of 2 ft. of excess/slack wire is required in all trace wire access boxes after meeting final elevation.

PART 3 EXECUTION

3.01 GENERAL

- A. Trace wire systems must be installed as a single continuous wire, except where using approved connectors.
- B. Any damage occurring during installation of the trace wire must be immediately repaired by removing the damaged wire, and installing a new section of wire with approved connectors. Taping and/or spray coating shall not be allowed.
- C. Trace wire shall be installed at the top of the pipe and secured (taped/tied) at 5' intervals.
- D. Trace wire on all water service laterals/stubs must terminate at the meter box per County standards
- E. All service lateral trace wires shall be a single wire, connected to the mainline trace wire using a mainline to lateral lug connector, installed without cutting/splicing the mainline trace wire. If service lateral is a conductive pipe, tracer wire shall be installed 6" above the pipe to avoid contact.
- F. In occurrences where an existing trace wire is encountered on an existing utility that is being extended or tied into, the new trace wire and existing trace wire shall be connected using approved splice connectors, and shall be properly grounded at the splice location as specified.
- G. Lay mainline trace wire continuously, by-passing around the outside of appurtenances or valves.

END OF SECTION