



**Public Utilities Department  
Engineering and Project Management Division**

**U.S. 41 WATER MAIN REPLACEMENT**

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## **SECTION I**

### **PROJECT DESCRIPTION**

#### **U.S. 41 Water Main Replacement**

The Collier County Water Distribution Department is replacing the water main located along the western right-of way (ROW) of U.S. 41 between 91st Avenue North and 111th Avenue North in Naples Park. The existing cast iron 8-inch water main provides potable water services to the Naples Park community and businesses along the west side of US 41 and provides a looping point for water supply in northwest Collier County. The County reserves the right to award all or any portion of each Phase.

The project includes the replacement of the 8-inch water main located along the western ROW of U.S. 41 between 91st Avenue North and 111th Avenue North.

The work includes, but is not limited to the following:

- Relocation of four (4) sewer laterals to the adjacent Avenues.
- Open Cut Installation of 8" PVC and 10" HDPE Water Main utilizing traditional open cut, hand digging, and slot trenching methods.
- Installation of 10" HDPE utilizing the out of service, existing gravity sewer main (pipe bursting or open cut sanitary sewer removal and water main installation).
- Installation via HDD of 10" HDPE.
- Installation of approximately seven (7) Precast Polymer Concrete Manhole, and connection to the existing gravity sewer system.
- Abandonment/grouting of the existing water main, manholes, and sewer pipe located within the US 41 water main.
- Abandonment of two monitoring wells per FDEP and SFWMD standards.
- Restoration of grass, sod, shrubs, pavement, driveways, culverts and storm sewers, and sidewalks.
- Night work for work all work in the Avenue intersections per State of Florida Department of Transportation (FDOT) requirements, and areas where anticipated commercial business service interruptions and/or access to businesses will be impacted by construction activities in order to avoid interruptions during working hours.

All construction shall be in accordance with the construction plans, Roadway and Traffic Standards (latest edition), Collier County Development Standards and Specifications, Collier County Water-Sewer District Utilities Standards Manual, and the State FDOT standards (latest edition). In the event of conflict between and/or these specifications and drawings, the more stringent requirement shall apply.

### **SCHEDULE**

Time is of the essence for this project and disruption to property owners and businesses must be kept minimal. The project will commence upon notice to proceed (NTP) from the County and be in effect until completion of the project as follows.

- Substantial completion must be reached for all aspects of the project no later than one hundred and seventy (170) days from the issued Notice to Proceed.
- Final completion must be reached for all aspects of the project no later than two hundred days from the issued NTP.



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## SCHEDULE OF VALUES

**Collier County EPMD PROJECT No.: 70123.5.1**

**U.S. 41 WATER MAIN REPLACEMENT**

Item No.	Item Description	QTY	Unit	Unit Price	Bid Total
<b>SECTION 1: GENERAL</b>					
1.1	Mobilization/Demobilization (Max 10% of Phase 2 Base)	1	LS		
1.2	Maintenance of Traffic	1	LS		
1.3	Survey Layout & Record Drawings	1	LS		
1.4	Erosion and Sedimentation Control	1	LS		
1.5	Pre-Construction Video & Photographs	1	LS		
<b>SECTION 1 SUBTOTAL:</b>					
<b>SECTION 2: WATER</b>					
2.1	<b>Water Main Installation</b>				
a.	8" C900 PVC Open Cut	300	LF		
b.	10" PVC Slot Trench/Open Cut/Hand Dig	720	LF		
c.	10" HDPE Slot Trench/Open Cut/Hand Dig	2530	LF		
d.	10" HDPE Pipe Bursting	2530	LF		
e.	10" HDPE Directional Drill	1150	LF		
2.2	<b>Gate Valves and Boxes</b>				
a.	6--inch Gate Valve	11	EA		
b.	8-inch Gate Valve	11	EA		
c.	10-inch Gate Valve	15	EA		
d.	6" Insert Valve	13	EA		
e.	8" Insert Valve	3	EA		
f.	12" Insert Valve	2	EA		
2.3	<b>Line Stop</b>				
a.	6" Line Stop	11	EA		
b.	8" Line Stop	3	EA		
2.4	<b>Air Release Valves</b>	11	EA		
2.5	<b>Fire Hydrant Assemblies</b>	15	EA		
2.6	<b>Temporary Bacteriological Sample Points</b>	17	EA		
2.7	<b>Connection to Existing Water Main</b>	22	EA		
2.8	<b>Grout/Abandon Existing Water Main</b>	7,250	LF		
<b>SECTION 2 SUBTOTAL:</b>					
<b>SECTION 3: WASTEWATER</b>					
3.1	<b>Sewer Lateral Relocation</b>				
a.	Lateral Relocation 1 (Milan Center - 9465 Tamiami Trail N)	1	LS		
b.	Lateral Relocation 2 (North Naples Car Wash - 10101 Tamiami Trail N)	1	LS		
c.	Lateral Relocation 3 (7-Eleven - 10795 Tamiami Trail N)	1	LS		
d.	Lateral Relocation 4 (North Collier Animal Clinic - 10895 Tamiami Trail N)	1	LS		
3.2	<b>Precast Polymer Concrete Manhole</b>	7	EA		
3.3	<b>Abandon Existing Conflict Box</b>	1	EA		
3.4	<b>Abandon/Dispose Manhole</b>	7	EA		
3.5	<b>Abandon/Dispose Existing Gravity Main</b>	2000	LF		
<b>SECTION 3 SUBTOTAL:</b>					
<b>SECTION 4: ROAD RESTORATION</b>					
4.1	<b>Remove, Dispose, and Replace Driveway</b>				
a.	Asphalt Driveway (Remove, Dispose, Replace)	60	SY		
b.	Reinforced Concrete Driveway (Remove, Dispose, Replace)	125	SY		
4.2	<b>Remove, Dispose, and Replace Sidewalk</b>	75	SY		
4.3	<b>Remove, Dispose, and Replace Concrete Curb and Gutter</b>	1400	LF		
4.4	<b>Road Restoration - Stabilized Subgrade</b>	1600	SY		
4.5	<b>Road Restoration - Limerock Base</b>	1200	SY		
4.6	<b>Road Restoration - Flowable Fill</b>	1200	SY		
4.7	<b>Road Restoration 2-1/2" Asphalt (Two Lifts)</b>	1100	SY		
4.8	<b>Milling &amp; Resurfacing</b>	1150	SY		
<b>SECTION 4 SUBTOTAL:</b>					
<b>SECTION 5: ALLOWANCES</b>					
5.1	<b>Owner Directed Allowance</b>	1	TBD	\$ 200,000.00	\$ 200,000.00
<b>TOTAL</b>					
The County reserves the right to award all or any portion of the project.					



## **SECTION III**

### **MEASUREMENT AND PAYMENT**

#### **U.S. 41 Water Main Replacement**

##### **DESCRIPTION**

- A. This section describes the method used to determine quantities of Work performed or materials supplied for which a price is given in the Bid. It establishes the basis upon which payment will be made for Payment Items.
- B. Subject to the provisions in General Conditions, all Work and payment for the Work is represented by Payment Items and associated unit prices.

##### **PAYMENT**

- A. Subject to all other contract requirements, the Contractor shall be paid for "as built" quantities of Work for which a price is given in the bid.
- B. Quantities on the Bid Schedule are estimated and may be increased or decreased without limit.
- C. No separate payment will be made for one Payment Item as Work incidentally required to complete the Work of another.
- D. Payment for Work performed shall be made in accordance with the unit prices in the Bid.

##### **MEASUREMENT FOR PAYMENT**

- A. Methods of Measurement:
  - 1. Measurements of lengths, widths, slope angles, and depths or elevations shall be made to determine "as-built" quantities of lengths, areas and volumes pertinent to Payment Items.
    - a. Unless otherwise specified, all lengths shall be horizontal distances.
    - b. Slope angles and elevations shall be measured using land surveying equipment.
  - 2. Graphic representations of measured quantities shall be drafted to scale using the Drawings where convenient and appropriate. Additional drawings shall be drafted if required.
    - a. Irregular shapes representing areas and volumes shall be measured using a compensating polar planimeter or a computer digitizer.
    - b. Regular shapes shall be scaled.
  - 3. Use of Drawings:
    - a. Unless otherwise agreed upon between the Contractor and Owner, the Drawings shall be used as the basis to establish existing grades and other existing topographic features.

##### **PAYMENT ITEMS**

- A. No separate payment will be made for the following Work, and its cost shall be included in the Bid Price of the Payment Item to which it is associated:
  - 1. Trench excavation, sheeting, shoring and bracing.
  - 2. Dewatering.
  - 3. Clearing and grubbing.



4. Excavation, fill, backfill, pipe bedding (including 57 stone), compaction, and grading, including furnishing and installing imported material as required.
5. Excavation of all material encountered, including rock, organic, inorganic, and unsuitable material and all material transportation and disposal.
6. Right-of-way, site, and all disturbed area restoration including the removal, replacement and restoration of sod, mulch, plantings, trees, landscape, etc. Sod type shall be determined by the type of sod that constitutes 50% or more of the property to be restored.
7. Removal and temporary replacement of driveways and roadways disturbed during construction to maintain usable condition until permanent restoration is completed.
8. Tree trimming.
9. Temporary restoration.
10. Removal, repair, and replacement of existing irrigation located within the ROW.
11. Removal, replacement, and restoration of mailboxes (including new).
12. Cleanup and daily site dust control.
13. Testing, including all materials, fees, certifications, and equipment.
14. Maintenance of utility service.
15. Appurtenant work.
16. Removal and replacement of fencing and other structures within the ROW.
17. Saw cutting.
18. Coordination with other contractors.
19. All transportation, storage, and labor.
20. Notifications to property and business owners of construction schedule and service interruptions.

B. Measurement and Payment Items as listed in the Bid Schedule:

## **SECTION 1: GENERAL**

### **1.1 Mobilization/Demobilization**

- A. Measurement for various items covered under Mobilization/Demobilization will not be made for payment, and all items shall be included in the lump sum price.
- B. Payment for Mobilization/Demobilization will be made at the Contract lump sum price. Payment for mobilization shall include all necessary meetings for the project, including, but not limited to: meeting with property/business owners and tenants, and all other interested parties, all meetings deemed necessary by Collier County, and all other public meetings required to complete the project in accordance with the contract documents; preparatory work and operations in mobilizing for beginning work and demobilizing for ending work. The establishment of safety equipment, first aid supplies, sanitary and other facilities, as required by these specifications, State and local laws and any other preconstruction expense necessary for the Work, the cost of field engineering, permits and fees, construction schedules, shop drawings, temporary facilities, lay down storage area, construction aids, work associated with Contractor support during Owner/Engineer testing, reviews and inspection, re-inspection and any rework resulting from same, cleaning, project records documents, operating and maintenance data. The Contractor shall submit invoices substantiating the cost of mobilization with each pay request. Fifteen percent (15%) of the cost for mobilization and demobilization

shall be withheld until substantial completion acceptance. This pay item cannot exceed 10% of the total base bid.

### **1.2 Maintenance of Traffic**

- A. Measurement for various items covered under Maintenance of Traffic will not be made for payment, and all items shall be included in the lump sum price.
- B. Payment for Maintenance of Traffic will be made at the Contract lump sum price for the item, which price and payment shall be full compensation for permitting, construction, and maintenance of any necessary detour facilities; the providing of necessary facilities for access to residences, business, etc., along the project; pedestrian access and detours, night work, the furnishing, installing and maintaining of traffic control, lights as required for night work, barricades, railings, message boards (VMS), flagmen, warning lights, and other safety devices during construction; dust control, temporary “Business Open” signs for each business as access is detoured, providing the services of uniformed off-duty police officers, and other special requirements for the safe and expeditious movements of traffic per County and FDOT standards.

### **1.3 Survey Layout & Record Drawings**

- A. Measurement for various items covered under Survey Layout & Record Drawings will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing all survey and record drawings will be made at the contract lump sum price for the item, which price and payment shall be full compensation for project stake-out, installing and maintaining stakes at all property corners along the ROW within the limits of the project with stationing written on them; completion of an as-built survey, maintaining of up-to-date redline drawings (contractor’s redlines to be kept on-site and presented when requested by the County, CEI, or Engineer of Record and with every pay request), and the delivery of five (5) sets of signed and sealed as-built survey drawing and an electronic copy submitted to the County upon Contract close-out per County standards.

### **1.4 Erosion and Sedimentation Control**

- A. Measurement for various items covered under Erosion and Sedimentation Control will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment of the lump sum amount bid for erosion and sedimentation control shall be full compensation for all erosion and sedimentation control per Collier County, South Florida Water Management District, and FDOT standards and as specified herein. Includes silt fence around entire disturbed area throughout the duration of the project.

### **1.5 Pre-Construction Video & Photographs**

- A. Measurement for various items covered under Pre-Construction Video & Photographs will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing pre-construction videos and photographs will be made at the full lump sum contract price for the item, which price and payment shall be full compensation for a minimum of three pictures per lot to document pre-construction conditions, including, but not limited to, sign location, irrigation location and type, sod type, landscaping, and sidewalk and driveway condition; the completion of the County pre-construction assessment form for each parcel; a wet weather video (in addition to a dry weather video) to document flood conditions that will take place during normal business hours. Additional preconstruction videos and pictures must be provided to the County a maximum of 10 days after receiving the Notice to Proceed.

## SECTION 2: WATER

### 2.1 Water Main Installation

- A. Measurement for pipe, except as otherwise specified, will be based on the laying length of the pipe in linear feet actually placed as measured along the centerline of the completed pipe, including length of fittings and specials measured along the centerlines measured to the nearest foot, between the limits shown on the Drawings and restraint of pipe as required by contract documents.
- B. Payment for furnishing and installing water main pipelines will be made at the Contract unit price per linear foot for the pipe in place, which price and payment shall be full compensation for night work, clearing and disposal of trees, bushes, all pipe fittings, installation by slot trenching/open cut/hand digging, horizontal directional drilling, or pipe bursting in locations indicated on the Contract Documents, all electro-fused or butt-welded fittings and adapters, mechanical joint adapters, locating tone wires, bacteriological testing and sampling assemblies, silt fencing, buoyancy control, flowable fill, excavation, tree trimming, sidewalk removal and replacement, sanitary sewer main/manhole removal and disposal and/or abandonment, existing water main, water service, fire hydrants, and water valve removal and disposal and/or abandonment, asphalt removal and replacement, curb and gutter removal and replacement, sod removal and replacement, and other surface materials not specifically designated as a separate pay item; dewatering, pipe bedding, backfill and compaction, sheeting, restrained joint piping, mechanical joint restraints, detectable tape and marker locating balls, pressure testing, flushing/filling of main, joint restraints, bacteriological testing and sampling assemblies, silt fencing, connections to existing water main including restraint of existing pipe on all sides of the tie in, support of existing main, keeping existing main in service, temporary connections to the existing water main, hiring of power company to support power pole as required, removal and replacement of fences, removal and temporary replacement of driveways and roadways disturbed during construction to maintain usable condition until permanent restoration can be completed, including as a result of pipe bursting operations, site restoration, including landscape and/or sodding not designated in bid as necessary, and all equipment and all other work necessary to complete the installation as specified. Contractor shall provide imported backfill if needed. Also includes coordination with other contractors, stubs and valves for future connections to existing pipes, clean-up, disinfection and sterilization, temporary facilities for blow-offs and testing. All cost to clean, repair new or existing piping and appurtenances will be included under the payment for linear feet of pipe.

### 2.2 Gate Valves and Boxes

- A. Measurement for Gate Valves, except as otherwise specified, will be based on the number of actual gate valves installed and accepted.
- B. Payment for furnishing and installing gate valves will be made at the appropriate contract unit price per gate valve installed which price and payment shall be full compensation for all labor and materials associated with furnishing, installing and testing the valve, insert valve assembly, valve stem, mechanical restraints (not listed in a separate pay item), nut with extension, tie rods, valve box, valve box adjustments or extensions, concrete pad, disk, cover, required marker balls, and surface restoration.

### 2.3 Line Stop

- A. Measurement for Line Stops, except as otherwise specified, will be based on the number of actual line stops installed and accepted.
- B. Payment for furnishing and installing line stops will be made at the appropriate contract unit price per line stop installed which price and payment shall be full compensation for all labor and materials associated with furnishing, installing and testing the line stop, mechanical restraints (not listed in a separate pay item), restraining of existing mains, required marker balls, and surface restoration. This item also includes the

installation of base material below the line stop and the removal and reinstallation of the line stop as required in accordance with Collier County standards.

## **2.4 Air Release Valves**

- A. Measurement for Air Release Valves, except as otherwise specified, will be based on the number of air release valves installed and accepted.
- B. Payment for furnishing and installing air release valves will be made at the appropriate contract unit price per each air release valve installed and accepted which price and payment shall be full compensation to furnish and install the valve, complete with tapping saddle, ballcorp, curb stop, supports, vents, vault, bedding rock, footing, frame, cover, access lid, piping, fitting and bends, enclosures, deflections under/over existing or proposed utilities, swales, or stormwater improvements, and other appurtenances. Air release valves shall be placed at the ROW line unless otherwise directed by the County.

## **2.6 Fire Hydrant Assemblies**

- A. Measurement for Fire Hydrant Assemblies, except as otherwise specified, will be based on the number of fire hydrants installed and accepted.
- B. Payment for furnishing and installing the fire hydrant assemblies will be made at the appropriate contract unit price per fire hydrant assembly installed which price and payment shall be full compensation for all labor and materials required to furnish and install the tee on the utility main, all necessary fittings, joint restraint from the valve to the tee, necessary piping from the tee to the hydrant location with the installation of barrel section to meet finished grade, and deflections under/over existing or proposed utilities, swales, or stormwater improvements; control gate valve, valve box pavement markers, removal and disposal of the existing fire hydrant assemblies, including removal of the valve box and any concrete work. Contractor is responsible to set the hydrant to grade in accordance with the details shown on the Plans and the Collier County specifications.

## **2.7 Temporary Bacteriological Sample Points**

- A. Measurement for furnishing and installing bacteriological sample points will be based on the number of bacteriological sample points installed and accepted.
- B. Payment for furnishing and installing bacteriological sample points will be made at the appropriate contract unit price per each bacteriological sample point installed and accepted which price and payment shall be full compensation to furnish and install all valves, tubing, fittings, enclosure, all concrete, removal of temporary sample points, and incidentals necessary for a complete installation as shown on the drawings and as specified herein.

## **2.8 Connection to Existing Water Main**

- A. Measurement for Connections to Existing Water Mains, except as otherwise specified, will be based on the number of connections actually installed and accepted.
- B. Payment for connecting the newly constructed water main to the existing water mains will be made at the appropriate Contract unit price per each connection acceptable installed which price and payment shall be full compensation to furnish and install all fittings, connections, tapping sleeve and valve with valve box, blow-offs, miscellaneous piping not included under a separate bid item; restraining existing and proposed piping, concrete work, field measurements, protection of existing utilities and facilities, existing water main, water service, fire hydrants, and water valve removal and disposal and/or abandonment, excavation, pipe bedding, dewatering, compaction, surface restoration, testing, bacteriological sample point testing, cleanup, restoration, and all other work required for a complete installation.

## **2.9 Grout/Abandon Existing Water Main**

- A. Measurement for grout/abandonment and/or removal and disposal of the existing water main will be based on the length of the pipe in linear feet actually grouted/abandoned/removed and disposed of as measured along the centerline of the pipe, including length of fittings and specials measured along the centerlines, between the limits shown on the Drawings and restraint of pipe as required by contract documents.
- B. Payment for removing and disposing cast iron pipe will be made at the appropriate contract unit price per linear foot in accordance with Collier County Standard and as specified herein. Payment to abandon water main will be made at the Contract linear feet price for the grouting/abandonment/removal of the existing water main as shown on the Contract Drawings. Price and payment shall be full compensation for all cutting, capping, restraint, grouting (full), removal, transportation, disposal of the existing pipe, site restoration, including landscaping and/or sodding as necessary, tree trimmings, vegetation removal, pipe removal and disposal, curb removal and replacement, roadway restoration, sidewalk restoration, and for all equipment and all other work necessary to complete the abandonment/removal as specified.

## SECTION 3: WASTEWATER

### 3.1 Sewer Lateral Relocation

- A. Measurement for relocating each sanitary service lateral will be based on the number of sanitary service laterals relocated to the Avenue gravity sewer main and accepted.
- B. Payment for relocating sanitary service laterals (up to the building cleanout line) will be made at the appropriate Contract unit price per PVC sewer service lateral relocate to the property corner, acceptably installed, including all necessary pipe, fittings, connections, solvent welded sleeves and adaptors, flexible coupling (existing clay to new PVC connections only), cleanouts, concrete pads, two-way cleanouts where specified, protection of existing utilities and facilities, locating existing sewer laterals, maintaining sanitary sewer service at all times, excavation, pipe bedding, sheeting, shoring, dewatering, compaction, service markers, plugs, removal and replacement of landscaping, including private property landscaping and restoration, pavement, sidewalks and other surface materials not specifically designated in the another pay item, cleanup, testing, and all other work required for a complete installation.

### 3.2 Precast Polymer Concrete Manhole

- A. Measurement for installation and furnishing of precast polymer concrete manholes, except as otherwise specified, will be based on the number of precast polymer concrete manholes installed and accepted on the sanitary sewer main.
- B. Payment for furnishing and installing precast polymer manholes will be based on the actual number of manholes installed and accepted, including removal and disposal of all existing concrete manholes unless otherwise specified, all excavation, backfilling, compacted gravel or crushed stone bedding, anti-flotation collars, polymer concrete grade rings, sheeting, shoring, dewatering, sawing, concrete and epoxy work, field adjustments, maintaining the wastewater collection system in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; protection of adjacent utilities and facilities, manhole frames and covers, coatings and linings, manhole joints, bottom channels, and sanitary sewer connections. All precast polymer concrete manholes shall have a buoyancy collar at the manhole base.

### 3.3 Abandon Existing Conflict Box

- A. Measurement for abandoning the existing conflict box, will be based on the number of conflict boxes abandoned and accepted.
- B. Payment to abandon a conflict box will be made at the Contract lump sum price for the abandonment as shown on the Contract Drawings. Price and payment shall be full compensation for all cutting, removal, flowable fill, concrete/epoxy patching, hauling, disposal, cutting, capping, and removal of the existing pipe, site restoration, including landscaping and/or sodding as necessary, tree trimmings, vegetation removal, pipe removal and disposal, and for all equipment and all other work necessary to complete the abandonment as specified with the Engineer of Record and the County and all other incidentals necessary to complete the abandonment as specified.

### 3.4 Abandon/Dispose Manhole

- A. Measurement for abandoning existing manholes will be based on the number of manholes abandoned and accepted.
- B. Payment to abandon each manhole, will be made at the Contract lump sum price for the flowable fill and abandonment or removal of the existing manhole as shown on the Contract Drawings. Price and payment shall be full compensation for all cutting, removal, and disposal of the existing manhole, site restoration, including landscaping and/or sodding as necessary, tree trimmings, vegetation removal, pipe removal and disposal, and for all equipment and all other work necessary to complete the abandonment as



specified with the Engineer of Record and the County and all other incidentals necessary to complete the abandonment as specified.

### **3.5 Abandon/Dispose Existing Gravity Main**

- A. Measurement for abandonment and/or removal and disposal of the existing gravity sewer main will be based on the length of the pipe in linear feet actually abandoned/removed and disposed of as measured along the centerline of the pipe, including length of fittings measured along the centerlines, between the limits shown on the Drawings.
- B. Payment to abandon the gravity sewer main will be made at the Contract lump sum price for the grout and abandonment or removal and disposal of the existing piping as shown on the Contract Drawings. Price and payment shall be full compensation for all cutting, removal, and disposal of the existing pipe, flowable fill, cutting, capping, restraint, and grouting of the existing pipe, removal of associated cleanouts, site restoration, including landscaping and/or sodding as necessary, tree trimmings, vegetation removal, pipe removal and disposal, and for all equipment and all other work necessary to complete the installation as specified with the Engineer of Record and the County and all other incidentals necessary to complete the installation as specified.

## **SECTION 4: ROAD RESTORATION**

### **4.1 Remove, Dispose, and Replace Driveway**

- A. Measurement for removing, disposal, and replacing driveway (concrete or asphalt) will be based on the area of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing driveway (concrete or asphalt) will be made at the appropriate Contract Unit price per square yard of concrete or asphalt driveway actually removed and replaced for construction. Contractor to replace all concrete driveways with reinforcement as specified herein. Contractor shall confirm the limits and dimensions of all driveway removal and replacements in the field with the County prior to removal and replacement. Replace driveways to match existing elevations and materials of construction (unless shown otherwise on the Drawings or approved by the County). Include surface restoration required for driveway removal and replacement and reinforcement of driveway flares in this item. Should the Contractor choose to jack and bore or directionally drill under driveways, the measurement shall be to the edge of the right of way in these locations. All jack and bores and directional drills must be pre-approved in writing by the County (special circumstances only). No additional measurement or payment will be made for varying driveway thicknesses, subsurface preparation, subgrade, base, limerock, and stabilizing material. All driveways shall be constructed per FDOT Right of Way Standards and per the contract documents.

### **4.2 Remove, Dispose, and Replace Sidewalk**

- A. Measurement for removing, disposal, and replacing concrete sidewalks will be based on the total square yard of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposal, and replacing concrete sidewalks shall be made at the appropriate Contract unit price which price and payment shall be full compensation for removal and disposal of existing material, adjustment, furnishing subgrade and stabilizing material, furnishing and installing of concrete sidewalk per FDOT Standard Index 310 or the Flexible Pavement Design Manual for bike lanes, per ADA requirements, ADA mats, and testing as specified herein. A minimum length of 20 feet shall be required to transition from replaced concrete sections to existing sidewalk sections that do not meet ADA cross slope requirements (2% max). Pedestrian access and transit shall be provided at all times during construction.

#### **4.3 Remove, Dispose, and Replace Concrete Curb and Gutter**

- A. Measurement for removing, disposal, and replacing concrete curb and gutter will be based on the total linear feet of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposal, and replacing concrete curb and gutter shall be made at the appropriate Contract unit price which price and payment shall be full compensation for removal and disposal of existing material, adjustment, furnishing subgrade and stabilizing material, furnishing and installing of concrete curb and gutter to match the current conditions per FDOT Standards, and testing as specified herein. Existing stormwater patterns shall be maintained at all times during construction.

#### **4.4 Road Restoration – Stabilized Subgrade**

- A. Measurement for removing and replacing FDOT certified stabilized subgrade will be based on the area of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing stabilized subgrade will be made at the appropriate contract unit price per square yard installed including furnishing all material, equipment, testing, vibration monitoring during compaction activities, and disposal of old material. All activities should be in accordance with the FDOT ROW Standards and as detailed on the Plans.

#### **4.3 Road Restoration - Limerock Base**

- A. Measurement for removing and replacing street base will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing street base will be made at the appropriate Contract unit price per square yard for FDOT certified base installed including furnishing all material, equipment, testing, vibration monitoring during compaction activities, and disposal of old material. Replace all base in accordance with the FDOT ROW Standards and as detailed on the Plans.

#### **4.4 Road Restoration – 2-1/2” Asphalt (Two Lifts)**

- A. Measurement for removing and replacing street pavement surface will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposing and replacing street pavement surface will be made at the appropriate Contract unit price per square yard for pavement surface installed in the work. Replace all pavement surface in accordance with the FDOT ROW Standards and as detailed on the Plans. This payment item shall be all encompassing for all asphalt, sign removal and replacements, vibration monitoring during compaction activities, reflective pavement markers, and temporary and final (thermoplastic) striping placed. This payment item shall cover both lifts of asphalt. Contractor may apply for fifty percent (50%) payment at the completion of the first lift of asphalt, and the remaining fifty percent (50%) shall be paid at the completion of the second lift.

#### **4.5 Milling & Resurfacing**

- A. Measurement for milling and resurfacing surface will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposing and replacing street pavement surface will be made at the appropriate Contract unit price per square yard for pavement milled and resurfaced. Mill and resurface all pavement surface in accordance with the FDOT ROW Standards and as detailed on the Plans. This payment item shall be all encompassing for all asphalt, sign removal and replacements, vibration monitoring during compaction activities, reflective pavement markers, and temporary and final (thermoplastic) striping placed. This





payment item shall include 1-inch minimum milling with Type SP-9.5 asphalt (1-inch minimum) placed with the final lift of asphalt.

## **SECTION 5: ALLOWANCES**

### **5.1 Owner Directed Allowance**

- A. An allowance is established to cover unanticipated costs including, but not limited to, un-located utilities and unforeseen site conditions. (No additional payment shall be made for rock excavation, replacement of fill material or dewatering). Use of Allowance must be approved by the Collier County prior to the execution of the work. All work must be billed on a time and material, lump sum, or unit price basis.

**END OF SECTION**



## **SECTION IV**

### **SUPPLEMENTAL PROJECT REQUIREMENTS**

#### **U.S. 41 Water Main Replacement**

1. Normal work shall be limited to 7:00 AM to 7:00 PM Monday through Saturday. No work shall be permitted on Sundays and County Holidays without prior approval. Please see the following link for Collier County's Holidays: <https://www.collierclerk.com/clerks-office/holidays>.
2. Night work shall be required during all scheduled interruptions of water services to commercial businesses, and work requiring the closing (partial or fully) of access to an Avenue. Scheduled water service shutdowns shall be coordinated between the contractor and the business owner to occur during off-business hours. Night work shall be limited to 7:00 PM to 6:00 AM Monday through Friday.
3. Contractor shall comply with all conditions listed in the FDEP's Environmental Resource Permit as defined in F.A.C. 62-330.453 General Permit for Installation, Maintenance, Repair, and Removal of Utility Lines.
4. All utility construction shall be supplied and completed in accordance with the Collier County Water-Sewer District, Utilities Standards Manual, available at the following link: <http://www.colliergov.net/index.aspx?page=389>

In the event of a conflict between the County Utility Standards and these specifications and drawings, the more stringent requirement shall apply.

5. Clearing and grubbing shall be limited to work areas only. Contractor shall be responsible for restoring all areas disturbed by his work. All disturbed areas shall be restored to pre-construction conditions. Contractor shall be required to water vegetation replaced until established/rooted.
6. Trees and shrubs within the work area that require removal shall be replaced in kind and as directed by Collier County and the FDOT.
7. Contractor shall be responsible for all construction layout and preparation of Record Drawings in accordance with County requirements. This shall include but not be limited to water mains, valves, and services.
8. Contractor shall field verify the location (horizontal and vertical), size, and material of all utility mains in which connections are to be made. Contractor shall conduct pot-holing of all areas a minimum of ten (10) days prior to any work in an area. The existing private and public utilities shall be pot-holed to verify location (horizontal and vertical). This shall be reviewed with the County and Engineer to allow adjustment of mains as required to minimize conflicts.
9. Notification of road closures must be provided in writing to the Collier County Sheriff's Office

and the North Collier Fire Rescue District at least 72 hours in advance of the road closures and a Road Alert Notification submitted to the Collier County Growth Management Department weekly. Access to each residence and business shall be maintained for emergency vehicles at all times.

10. Access to businesses shall be maintained at all times with access from either US41 or an adjacent Avenue from US41. At no time may access to a business be blocked completely. When an access drive to a business is closed, the Contractor shall provide, place, and maintain a "Business Open" sign at the closed access (24"x24" min). Contractor must provide a road closure plan and schedule for review by the County, City, and EOR 7 days prior to all proposed road closures.
11. Contractor shall contact all utility suppliers, including Collier County, TECO People's Gas, FPL, Crown Castle Fiber, Comcast, Summit Broadband, Inc., and CenturyLink for locating of these facilities. Contractor shall coordinate with these utilities for protection and adjustment of their facilities as needed. All costs shall be included in individual bid items.
12. In addition to all requirements set forth by the Collier County Utilities Standards Manual, directional drilling and pipe installation shall be performed by an experienced contractor specializing in directional drilling. Key personnel must have at least five (5) years' experience with directional drilling on projects equal in size and scope. The operator shall have performed at least five (5) directional bores of 10" minimum pipe diameter, greater than 1,500-foot in length, and in similar soil conditions. The operator shall have performed a directional drill in similar crowded right-of-way conditions. Proof of which shall be submitted with the Contractor's bid.
13. In addition to all requirements set forth by the Collier County Utilities Standards Manual, pipe bursting and pipe installation shall be performed by an experienced contractor specializing in pipe bursting. Key personnel must have at least five (5) years' experience with pipe bursting on projects equal in size, carrier material, and scope. The operator shall have performed at least five (5) pipe bursting projects of 10" minimum pipe diameter, greater than 1,500-foot in length, with similar carrier pipe material, and in similar crowded right-of-way conditions. Proof of which shall be submitted with the Contractor's bid.
14. The contractor is responsible for providing a third-party independent consultant to perform vibration monitoring adjacent to existing homes and structures during all construction activities. The monitoring equipment shall be located within the equipment manufacturers allowable tolerance distance from construction activities at all times. All monitoring shall be done at the limits of the right-of-way. Payment shall be incidental to the project. Reports shall include location of the equipment, time, and maximum PPV, either once per day, if the vibration monitor is not relocated, or upon each relocation of the vibration monitoring device. Upon either detecting vibration levels reaching 0.5 inches per second or damage to the structure, immediately stop the source of vibrations, backfill any open excavations, notify the Engineer and provide a corrective action plan for acceptance by the Engineer. Vibration monitoring and reporting shall follow the U.S. Bureau of Mines standards and reports shall be signed and sealed by a State of Florida Professional Engineer and delivered weekly to the County, EOR, and CEI. The Contractor's qualified subcontractor shall be the only party allowed to determine the proper location for

monitoring and setting up the vibration monitoring equipment..

15. Reinforced polymer concrete manholes shall be used for each manhole installation of this project. All reinforced polymer concrete structures must be supplied by a qualified company with a minimum of 5 years' experience manufacturing polymer concrete. All reinforced polymer concrete structures shall be manufactured and installed with the applicable requirements of ASTM C76, C478, C443, D6783, C267, A82, A165, A496, A497, A615, and A615M. In no cases shall the wall thickness be less than 3" for 48" diameter manholes. Internal protection (coating) is not required with this material. All precast polymer concrete manholes shall have a buoyancy collar at the manhole base with buoyancy calculations signed and sealed by a State of Florida Professional Engineer for each manhole submitted with the shop drawings to the Engineer of Record.
16. The Contractor shall notify Collier County Public Utilities Department (CCPUD) at least ten (10) calendar days in advance of all planned service interruptions, and receive County Project Manager's approval before proceeding with planned interruptions.
17. Contractor's site superintendent(s) must attend all meetings relating to the project, including, but not limited to: progress meetings, neighborhood information meetings, on-site meetings, and any other meeting deemed necessary by Collier County.
18. Contractor shall be responsible for all inspection and testing unless otherwise specified. For tests to be made by the Contractor, the testing personnel shall make the necessary inspections, furnish all material and equipment to properly perform the testing, and furnish all results to Collier County for acceptance of all equipment and installation as required. Contractor shall be responsible for the cost of all testing as required.
19. Contractor to pre-test all pressure piping and meet AWWA C600-17 (or current edition) allowable loss standards for a minimum of one hour before requesting a pressure test.
20. Contractor shall be responsible for all Maintenance of Traffic for the project. Maintenance of Traffic shall be in accordance with the FDOT Standard Index and the Manual of Uniform Traffic Control Devices (MUTCD, Part VI). Existing traffic conditions may warrant night work. If night work is required, the Contractor will be responsible for proper MOT.
21. Contractors will be responsible for storing all materials for the project, including all materials purchased by Collier County in a secured, fenced in storage area. Contractor is to provide lease agreement with property owner, Right-of-way permits, and temporary use permits to the Engineer and County within ten (10) days of the issued Notice to Proceed. No material may be stored within the right-of-way. All material stored shall be covered, per the Manufacturer's recommendations and County Specifications. The Contractor shall be responsible for maintaining all work areas in a safe and clean manner as identified in the County Utilities Standards Manual. This shall include but not be limited to daily sweeping of roadway and sidewalk surfaces.

22. All storage lots used for the project must be maintained daily including, but not limited to; mowing and weeding, litter removal, fence repair as needed, daily sweeping and dust control, and permit renewal as required.
  
23. All excavation shall be unclassified with no additional payment to be made for rock or dewatering. The Contractor shall be responsible for making his own site observations and exploration to determine site conditions prior to bidding.
  
24. The Contractor shall prepare a Safety Program/Risk Management Program. This Program in conjunction with the list items shall include a Plan for Tropical Storms and Hurricanes.