# SECTION 01 22 13

# MEASUREMENT AND PAYMENT

### PART 1 GENERAL

- 1.1 SECTION INCLUDES
  - A. Explanation and Definitions
  - B. Measurement
  - C. Payment
  - D. Schedule of Values

## 1.2 EXPLANATION AND DEFINITIONS

A. The following explanation of the Measurement and Payment for the bid form items is made for information and guidance. The omission of reference to any item in this description shall not, however, alter the intent of the bid form or relieve the CONTRACTOR of the necessity of furnishing such as a part of the Contract.

### 1.3 MEASUREMENT

A. The quantities set forth in the bid form are approximate and are given to establish a uniform basis for the comparison of bids. The OWNER reserves the right to increase or decrease the quantity of any class or portion of the work during the progress of construction in accord with the terms of the Contract.

### 1.4 PAYMENT

- A. Payment shall be made for the items listed on the Bid Form on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, clean up, restoration of disturbed areas, and all other appurtenances to complete the construction and installation of the work as shown on the drawings and described in the specifications.
- B. Unit prices are used as a means of computing the final figures for bid and Contract purposes, for periodic payments for work performed, for determining value of additions or deletions and wherever else reasonable.

# 1.5 SCHEDULE OF VALUES

- A. Approval of Schedule: Submit for approval a preliminary schedule of values, in duplicate, for all of the Work. Prepare preliminary schedule in accordance with the General Conditions. Submit preliminary schedule of values within 10 calendar days after the Effective Date of the Agreement. Submit final schedule of values in accordance with the General Conditions.
- B. Format: Utilize a format similar to the Table of Contents of the Project Specifications. Identify each line item with number and title of the major specification. Identify site mobilization, bonds and insurance. Include within each line item, a direct proportional amount of CONTRACTOR's overhead profit.
- C. Revisions: With each Application for Payment, revise schedule to list approved Change Orders.

## PART 2 EXECUTION

### 2.1 MEASUREMENT AND PAYMENT

A. Payment shall be made on the basis of work actually performed completing each item in the Bid, such work including, but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, cleanup, and all other appurtenances to complete the construction and installation of the work to the configuration and extent as shown on the drawings and described in the specifications. Payment for each item includes compensation for cleanup and restorations. Cleanup and surface restorations (including pavement replacement) will be considered as ten percent (10%) of each pay item and complete payment will not be made until cleanup, restorations and as-builts are completed.

### GENERAL

1. <u>Mobilization/Demobilization</u>: Payment for mobilization will be made at the Contract lump sum price for the contractor's cost for mobilization, demobilization, insurance, identifying and securing a staging area and other applicable administrative charges as outlined in the Contract Documents and specified herein. Mobilization lump sum price shall not exceed two percent (2%) of the total Bid Amount. Payment for mobilization will be twenty-five percent (25%) of the lump sum amount to be included with the final payment request.

- 2. <u>Maintenance of Traffic</u>: Payment for maintenance of traffic will be made at the Contract lump sum price and includes the furnishing and installation of labor, equipment and materials to provide temporary traffic control, temporary surfaces and pavements, preparation of maintenance of traffic Drawings, and other such cost that may be necessary to properly maintain traffic throughout the entire construction site including provisions for emergency vehicles. This item includes the traffic control devices, flag men to direct traffic and the preparation and submittal of the Maintenance of Traffic plan for approval. All maintenance of traffic shall be in accordance with applicable FDOT/LCDOT standard Indexes. It also includes road/lane closures of local streets with minimal delay to traffic. All emergency services shall be notified well in advance of road closures.
- Survey Layout & Record Drawings: The cost for preparation of the survey layout 3. and record drawings shall be made at the Contract lump sum price. This item includes material, labor and certification to prepare the "Record Drawing", field verification of existing underground facilities, construction stakeout of the proposed pipe and to survey the new pipe after it has been installed. Prior to acceptance, the Contractor shall submit two prints, and one set of electronic copies of AutoCAD formatted drawings marked as "Drawings of Record" which include the original design and all deviations that occurred during construction in accordance with Lee County regulations. The record drawings shall include vertical and horizontal alignment of all water mains, valves, tees, bends, reducers, air release valves and other pertinent structures. Pipe runs in excess of 500 feet without fittings shall include vertical alignment and grade information. Record drawings shall be certified by a Professional Land surveyor licensed in the State of Florida. All elevation to be based on NAVD '88 vertical datum and all horizontal coordinates in Florida West State Plane coordinates.
- 4. <u>Pre-Construction Video</u>: Measurement and payment for pre-construction video recording shall be made at the contract Lump Sum price. The work includes that necessary to document existing conditions on public and private property. The Contractor may be required to restore private properties to conditions better than existing, at no additional cost to the County, if the Contractor fails to sufficiently document existing conditions. The preconstruction video is only good for up to 6 months. Please phase the video properly to meet this requirement.

# FORCE MAIN

5. <u>Force Main Pipelines</u>: Payment for furnishing and installing force main pipelines (various sizes and types) will be made at the Contract unit price per lineal foot for the pipe in place. This item includes all necessary fittings, connections to existing mains, labor, equipment and materials for the furnishing and laying of the pipe, silt fence, turbidity barriers, erosion protection, signs, dewatering, compaction, pipe bedding, backfilling, sheeting, restrained joint piping, mylar detectable tape, polyethylene sleeve, clamps, harnessing, plugs and caps, adapters, excavation of all material encountered including rock, backfill, replacement of grass, sod, clearing and grubbing, pavement, driveways, sidewalks, mailboxes, culverts,

storm sewers, and other surface materials not specifically designated in the Bid, clean-up, sterilization, and tests. Measurement of the pipe shall be to the nearest foot along the centerline including the lengths of manholes, valves and fittings. Lineal footage measurement shall be horizontal. Cuts shall be measured from existing grade to the invert elevation of the sewer.

- 6. & 7. <u>Plug Valves</u>: Payment for furnishing and installing plug valves (items 6 and 7) will be made at the appropriate Contract unit price per valve acceptably installed. This item includes the valve, box and all necessary labor, materials and equipment for installation, including valve stem and valve box extensions. This item also includes concrete valve pad, brass plate, and the installation of base material below the valve in accordance with the details shown in the Drawings.
- 8. <u>Air Release Valves</u>: Payment for furnishing and installing automatic air release valves will be made at the appropriate Contract unit price per each unit acceptably installed. This item includes all necessary labor, materials and equipment for installation, including the tapping saddle, corporation stop, polytubing, brass elbows, brass piping, ball valve, schedule 80 PVC pipe, air release valve fixture, vented pedestal housing with stainless steel post, an odor control bio-filter and bedding stone in accordance with the detail shown in the Drawings. When ordered in writing by the Engineer, payment will be made for additional automatic air release valve assemblies installed in the work due to field conditions. All automatic air release valves installed in the work not shown on the Drawings and not ordered by the Engineer in writing will not be measured for payment.

### WATER MAIN

9.-12. Water Main Pipelines: Payment for furnishing and installing water main pipelines (Items 9 thru 12) will be made at the Contract unit price per lineal foot for the pipe in place. This item includes all necessary fittings, connections to existing mains, labor, equipment and materials for the furnishing and laying of the pipe, steel casing, signs, maintenance of traffic, dewatering, compaction, pipe bedding, backfilling, sheeting, restrained joint piping, mylar detectable tape, clamps, harnessing, plugs and caps, adapters, excavation of all material encountered including rock, backfill, replacement of grass, sod, clearing and grubbing, pavement, driveways, sidewalks, mailboxes, culverts, storm sewers, and other surface materials not specifically designated in the Bid, clean-up, sterilization, and tests. Measurement of the pipe shall be to the nearest foot along the centerline including the lengths of manholes, valves, and fittings. Lineal footage measurement shall be horizontal. Cuts shall be measured from existing grade to the invert elevation of the sewer. Contractor is required to hydroseed along flat areas, water and maintain until growth is established. Repair eroded areas as needed. Sod along slopes, pin if needed, and water until established. This item also includes all roadway restoration, pavement removal, repair per the included Details. All required silt fence, turbidity barriers, erosion protection, de-chlorination, and flushing are included. The pipeline must be pigged/swabbed prior to the full

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bore flush. Contractor to test section by test section as show in the Drawings.

- 13. & 14. <u>Gate Valves</u>: Payment for furnishing and installing gate valves (Items 13 and 14) will be made at the appropriate Contract unit price per each gate valve acceptably installed. This item includes the gate valve, valve stem, ID Tags, valve box, and all necessary labor, all necessary restoration to equal or better conditions, materials, and equipment for installation, including valve stem and valve box extensions, joints, and concrete pads. This item also includes the installation of base material below the valve in accordance with the detail shown in the Drawings.
  - 15. <u>Connect to Existing 8" Water Main</u>: Payment for furnishing and installing connections to the 8" water main will be made at the Contract price for each interconnection acceptably installed. This item includes all labor, equipment and materials to install all necessary pipe, fittings, connections, tapping sleeve and valve with valve box, field measurements, protection of existing facilities, excavation, pipe bedding, dewatering, compaction, surface restoration, testing, cleanup and all other work for a complete installation.
  - 16. <u>Sample Point</u>: Payment for furnishing and installing sample point will be made at the Contract unit price for each assembly acceptably installed. This item includes labor to install the sample point, and all necessary fittings and piping.
  - 17. <u>Abandon/Capping 8" Water Main</u>: Payment for abandoning capping the existing water main will be made at the appropriate Contract lump sum price to take the water main out of service. This includes all thrust blocks, restraining, fittings, excavation to remove the water main from service. The intent is to leave the existing water main empty and cap all ends of it.
  - 18. <u>Air Release Valves Water Main</u>: Payment for furnishing and installing automatic air release valves will be made at the appropriate Contract unit price per each unit acceptably installed. This item includes all necessary labor, materials and equipment for installation, including the tapping saddle, corporation stop, polytubing, brass elbows, brass piping, ball valve, schedule 80 PVC pipe, air release valve fixture, vented pedestal housing with stainless steel post, an odor control bio-filter and bedding stone in accordance with the details shown in the project Drawings. When ordered in writing by the Engineer, payment will be made for additional automatic air release valve assemblies installed in the work due to field conditions. All automatic air release valves installed in the work not shown on the Drawings and not ordered by the Engineer in writing will not be measured for payment.

19. <u>Fire Hydrant Assembly</u>: Payment for the furnishing and installing fire hydrant assembly will be made at the Contract unit price for each fire hydrant assembly acceptably installed. This item includes the tee installed on the utility main, all necessary fittings, joint restraint from the valve to the tee and necessary piping from the tee to the hydrant location with the installation of barrel section to meet finished grade. All piping shall be six-inch (6") ductile iron pipe from the tee to hydrant. The CONTRACTOR shall be responsible to set the hydrant to grade in accordance with the detail shown on the Plans.

# **RESTORATION AND CONDUITS**

- 20. <u>Trench Restoration</u>: Payment for trench restoration will be made at the Contract price per square yard. This item includes all necessary materials and labor to complete the trench restoration in accordance with the project Drawings and technical specifications.
- 21. <u>Additional Fill</u>: Payment for additional fill will be made at the Contract price per cubic yard. This item includes the necessary fill to cover the water main and force main to obtain the required depths shown on the plans. This includes all required compaction, density testing, materials and equipment. This item also includes the temporary routing of any surface drainage that is impeded because of this fill.

END OF SECTION

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