

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 hydromulching.
16. As-built Record Drawings.

BID ITEM NO. 1 - MOBILIZATION/ DEMOBILIZATION

Measurement and payment for the Mobilization 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 any permits not already obtained by the County. This may include those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site and for the establishment of temporary offices, safety equipment and first aid supplies, and sanitary and other facilities/utilities. The mobilization pay item also includes demobilization of all equipment, personnel, supplies and incidentals from the project site upon final completion. 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%). The basis of payment for all work associated with Mobilization shall be paid for under the Lump Sum Pay Item and 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 - MISCELLANEOUS WORK AND CLEANUP

Payment for all work included under this Bid Item shall be made at the Contract lump sum price bid listed in the Bid Form and shall represent full compensation for all labor, materials and equipment required to perform all the work as shown on the Contract Drawings and specified herein and any other miscellaneous work not specifically included for payment under other Bid Items obviously necessary to complete the Contract. Partial payments will be based on the breakdown of the Bid Item in accordance with the Schedule of Values submitted by the Contractor and approved by the County. Payment shall also include full compensation for project photographs, as-builts record drawings, project signs, traffic control, rubbish and spoil removal, repair, replacement or relocation of all signs, walls, irrigation systems and related items and any and all other items required to complete the project in accordance with Contract Documents.

BID ITEM NO. 3 - DEMOLITION

Payment for all work included under this Bid Item shall be made at the Contract lump sum price bid listed in the Bid Form and shall represent full compensation for all labor, materials and equipment required to perform all the demolition work as shown on the Contract Drawings and specified herein, including any other miscellaneous work associated with removal of aboveground and below ground structures, piping, equipment, conduit, wire, valve pads, valve boxes, fencing, signs, concrete slabs, asphalt, and any other items required to be removed from the project. Excavation, including rock, unsuitable soils, bedding, backfill, dewatering, sheeting, testing and proper disposal of any items demolished as part of this project as necessary for a completed system in accordance with the Contract Documents shall be included. This pay item also includes proper disposal of all items to be demolished. Partial payments will be based on the breakdown of the Bid Item in accordance with the Schedule of Values submitted by the Contractor and approved by the County. Any equipment in working condition shall be salvaged as requested by the County.

BID ITEM NO. 4 - SITE WORK & SITE PREPARATION

Payment for all work included under this Bid Item shall be made at the Contract lump sum price listed in the Bid Form and shall represent full compensation for all labor, materials and equipment required to perform all grading, drainage, and stormwater

structures associated with the site work and site preparation as shown on the Contract Drawings and specified herein. Partial payments will be based on the breakdown of the Bid Item in accordance with the Schedule of Values submitted by the Contractor and approved by the County. Any equipment in working condition shall be salvaged as requested by the City.

BID ITEM NO. 5 - 1.0 MG GLASS-FUSED EQUALIZATION TANKS

Payment for all work included under this Bid Item shall be made at the applicable Contract unit price bid listed in the Bid Form and shall represent full compensation for all labor, materials and equipment required for the construction and erection of three (3) 1.0 MG glass fused steel equalization tanks with a nominal diameter of 86.72-ft and a sidewall height of 25.25-ft, tank foundations, stairways, walkways, platforms, pipe supports attached to the tanks, including all appurtenances as shown in the Contract Documents.

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

BID ITEM NO. 6 - EQUALIZATION TANK MIXING SYSTEM

Payment for all work includes, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the purchase and installation of a compressed gas mixing system to be installed in the Equalization Basins. Equipment, labor, and materials shall include compressors, control panels, air main, header supply piping, nozzles, auxiliary equipment and accessories as shown in the Contract Documents, and all other materials and equipment necessary for a complete and fully operable system, including testing and start-up, all as shown on the Contract Drawings and/or called for in the Contract Specifications, ready for approval and acceptance by the County.

Measurement for periodic payments of this unit price 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 - DRY PIT SUBMERSIBLE PUMPS

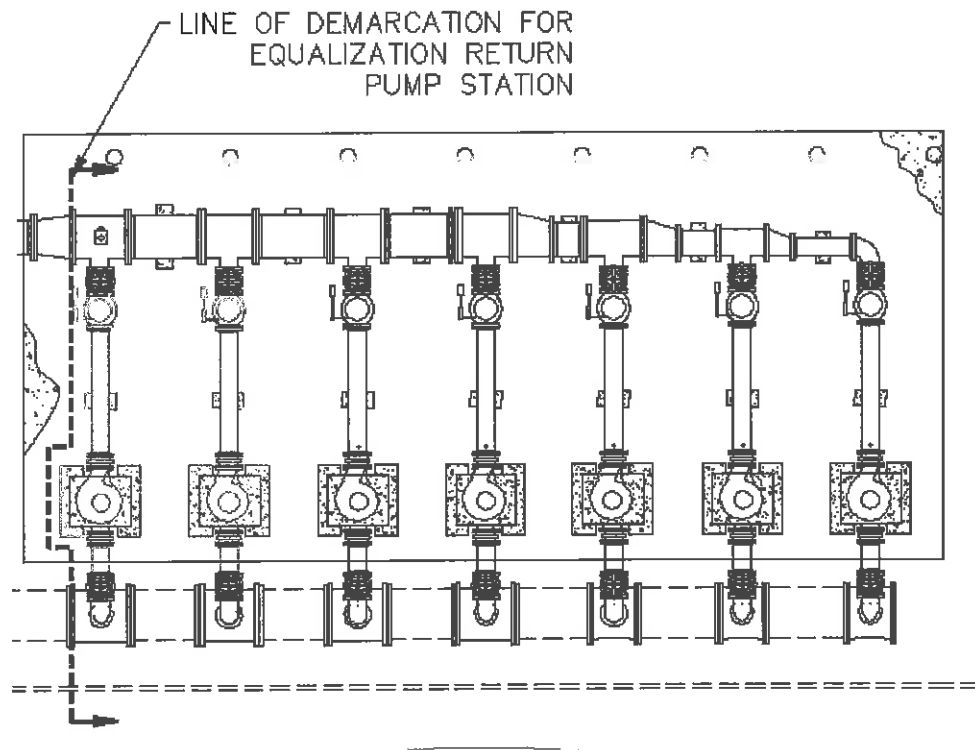
Payment for all work included under this Bid Item shall be made at the applicable Contract unit price bid per each of the five (5) dry pit submersible pump, including suction elbow with inspection port, base plate, cable, variable speed electric motor, spare parts, and all other materials and equipment necessary for a complete and fully operable system, including testing and start-up, all as shown on the Contract Drawings and/or called for in the Contract Specifications, ready for approval and acceptance by the County.

Measurement for periodic payments of this unit price 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 - EQUALIZATION RETURN PUMP STATION PIPING, ASSEMBLIES, AND MECHANICAL ADJUSTMENTS

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for labor, materials, tools, and equipment necessary to construct the equalization return pump station. Work shall include all below ground and aboveground suction and discharge piping associated with the equalization return pump station (from the western most 24"x8" tee on the suction header to the western most 24"x8" tee on the discharge header - see picture below), valves, assemblies, and mechanical adjustments. This item includes pipe support assemblies, fittings, valves, piping, restraints, adapters, concrete, bollards, stripping, painting, trenching, backfilling, compaction, and any mechanical adjustments needed.

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.



PAY ITEM NO. 9 - PREFABRICATED BUILDING AND FOUNDATION

Payment for all work included, but is not limited to, under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the purchase and installation of the prefabricated building with HVAC and foundation as shown in the Construction Drawings and Specifications. Payment includes any required excavation, including rock as necessary, bedding, backfill, dewatering, sheeting,

testing and any and all other items necessary to complete work.

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. 10 - ADJUSTABLE WEIR GATES

Payment for all work included under this Bid Item shall be made at the applicable Contract unit price bid per each of the three (3) adjustable weir gates. Furnishing all labor, materials, tools and equipment necessary to install and test all weir gates, consisting of, but not limited to frames, discs, seals, stems, operators, floor stands, stem guides, anchorage, and all other appurtenances, in place and complete.

All by-pass pumping, including coordination with County staff and engineer, shall be included as part of this pay item. Cost includes all equipment and manpower necessary to comply with the specifications, including cost to run power.

Measurement for periodic payments of this unit price 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. 11 - SITE PIPING

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for labor, materials, tools, and equipment necessary to construct the site piping shown in the Contract Documents. Work shall include all below grade and above grade ductile iron and PVC piping not associated with the equalization return pump station, including all fittings with Protecto 401 epoxy lining, fire hydrant assemblies, supports, connections, hose bibs, assemblies, stripping, painting, locate wire, tape, trenching, backfilling, compaction, concrete encasement, testing, cleaning, and any mechanical adjustments necessary to install the pipe as shown in the Contract Documents.

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. 12 -15 - 8" THROUGH 24" PLUG 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, pipe adaptor, and concrete pad as shown on the Contract Drawings and listed on the Bid Form. All Plug Valves shall be Holiday free and "true" 100% port eccentric plug valves. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, testing and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
12	24" Plug Valve	EA
13	20" Plug Valve	EA
14	12" Plug Valve	EA
15	8" Plug Valve	EA

BID ITEM NO. 16 - 17 - 4" & 20" GATE VALVE

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 and concrete pad as shown on the Contract Drawings and listed on the Bid Form. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, testing and disinfection and equipment required to complete these Bid Items.

BID ITEM	DESCRIPTION	UNITS
16	20" Gate Valve	EA
17	4" Gate Valve	EA

BID ITEM NO. 18 - 16" METER ASSEMBLY

Payment for all work included in this Bid Item shall be made at the applicable Contract unit price bid per each furnished and installed meter assembly as shown on the Contract Drawings and listed on the Bid Form. Work shall include all aboveground piping, including all fittings and air release valves associated with each meter assembly and mechanical adjustments. This item includes pipe support assemblies, restraints, adapters, concrete, bollards, stripping, painting, trenching, backfilling, compaction, and any mechanical adjustments needed. Payment shall represent full compensation for all labor, material, excavation, including rock as necessary, bedding, backfill, compaction, testing and disinfection and equipment required to complete these Bid Items.

BID ITEM NO. 19 - GRAVITY SEWER SYSTEM/ODOR CONTROL DRAINS

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for labor, materials, tools, and equipment necessary to construct the gravity sewer system, manholes, cleanout and 12" gravity sewer piping, and the 6" drain piping from the odor control system. All connections shown or called for on the Contract Drawings shall be included in the lump sum price bid for the gravity sewer system. Also included shall be the installation of all wyes and/or tees as required for service connections and the recording of their location by station and offset method and all other appurtenances and incidentals required or specified to complete the gravity sewer main. No additional compensation will be made by the County for excavation performed below the bottom of the pipe, for rock removal or materials or for repair of any trench settlement. Excavation, including rock as necessary, bedding, backfill, dewatering, sheeting, testing and any and all other items necessary for a completed system in accordance with the Contract Documents shall be included.

BID ITEM NO. 20 - HEADWORKS STAIRS

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for labor, materials, tools, and equipment necessary to construct/erect all aluminum stairs, walkways, and platforms. Work shall include all aluminum post, beams, supports, grating, handrails, toe plate, connections, and reinforced concrete foundations.

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.

PAY ITEM NO. 21 - RELOCATE SECURITY GATE/FENCE

Payment for all work included, but is not limited to, under this Pay Item shall represent full compensation in accordance with the lump sum price bid for the relocation or reconstruction of the existing security gate at the entrance of the facility, as detailed in the Construction Drawings and Specifications. If the gate cannot be relocated, Contractor shall reconstruct the gate and supports to fit in the proposed location illustrated in the Contract Drawings. Also included under this pay item is relocation and reconnection of the key pad, gate operator, camera, wiring, conduit, bedding, backfill, dewatering, sheeting, testing and any and all other items necessary to complete work.

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

PAY ITEM NO. 22 - STANDARD ACCESS GATE & FENCE

Payment for all work included, but is not limited to, under this Pay Item shall represent full compensation in accordance with the lump sum price bid for the purchase and installation of the fence and gate in accordance with the Construction Drawings and Specifications. Also included under this pay item is barbed wire, bedding, backfill, dewatering, sheeting, testing and any and all other items necessary to complete work.

Measurement for periodic payments of this lump sum Pay 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. 23 - MISCELLANEOUS CONCRETE

Payment for all work under this Bid Item shall be made at the applicable Contract unit price bid per cubic yard of concrete as shown on the Bid Form for furnishing, placing and installing the miscellaneous reinforced concrete pads and sidewalks, within the lines and grades as shown on the Contract Drawings and as described in the Specifications. All concrete placed outside these lines and grades to fill unauthorized excavation and all concrete for replacing defective work shall be at the expense of the Contractor. Concrete specifically included under any other Bid Item will not be measured or paid for under this Bid Item.

Measurement for miscellaneous concrete shall be per actual cubic yard of concrete

furnished, placed and installed as shown on the Contract Drawings or as ordered by the County in writing. This Bid Item includes encasements, pipe cradles/saddles, and like work. Payment shall represent full compensation for all labor, materials, and equipment for mixing, placing, forming and curing of the concrete and all incidentals necessary to complete the concrete work, ready for approval and acceptance by the County.

BID ITEM NO. 24 - PAVEMENT AND ROAD RESTORATION

Payment for all work included under this Bid Item will be made at the contract lump sum price for base, subbase, concrete, tonnage of asphalt for furnishing, installing and testing the asphalt drives, concrete curb/gutter and road restoration pavement sections as listed on the Bid Form. Measurement will be based on the driveways and road restoration installed, tested, completed and approved. The measurement will be from face of curb to face of curb or as specified, but not greater than the width of the existing roadway prior to construction. Payment shall include complete installation and restoration of the roadway section in accordance with the applicable details on the Contract Drawings, but not less than 1-1/2 inches of FDOT Type III asphaltic concrete, the necessary base, subbase or compacted suitable excavation material all in accordance with these Specifications. Payment shall include all items and incidentals necessary to complete the road restoration in accordance with the requirements of Manatee County ready for approval and acceptance by the County.

Measurement for periodic payments of this lump sum bid item will be in accordance with the percentage of work completed and approved as supplied by the Contractor in accordance with the Contract Documents.

BID ITEM NO. 25 - RESTORATION

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the for restoration of all disturbed areas within the project. All disturbed areas are to be sodded. 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. 26 - HEADWORKS DRAIN SYSTEM

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for labor, materials, tools, and equipment necessary to construct and new 6" drain line for the existing headworks. Work includes all site preparation, concrete cutting, trench drains, piping, fittings, connections, core drill, decommission/demolition of existing headworks lift station, removal of all lift station components, conduits, wiring, including proper termination, bollards, and light pole removal/reinstallation. Excavation, including rock as necessary, bedding, backfill, dewatering, sheeting, testing and any and all other items necessary for a completed system in accordance with the Contract Documents shall be included.

BID ITEM NO. 27 - ELECTRICAL AND INSTRUMENTATION

Payment for all work included under this Bid Item shall represent full compensation in accordance with the lump sum price bid for the Electrical and Instrumentation work including demolition/relocation of existing MCC's (motor control centers), relocation of instruments, transmitters, transducers, panelboards, transformer, manual transfer switch and other miscellaneous electrical equipment; new conduit and wiring with any stripping, trenching, compaction, backfill and re sodding required; new MCC's (motor control centers), new panelboards, new screen control panels and HMI's, new instruments, new conduit, duct bank, pull boxes, junction boxes and wiring; testing of power and control wiring to each of the new components; and all other materials and equipment necessary for a complete and fully operable system, including testing and start-up, all as shown on the Contract Documents, ready for approval by the Engineer and acceptance by the Owner.

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. 28 - PERMIT ALLOWANCE

The County is allowing for a Manatee County Building Permit allowance of \$10,000. Contractor shall include this allowance in his bid. Payment will only be made for the actual Manatee County Building Permit Fee. Contractor shall provide justification for payment at time of billing.

BID ITEM NO. 29 - 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