



## **Saturnia Lakes Water Main Looping**

### **PROJECT DESCRIPTION**

The proposed Saturnia Lakes Water Main Looping project is located on the east side of Logan Boulevard approximately one mile south of the intersection of Immokalee Road and Logan Boulevard. The north terminus point of the project is located at the west end of Triangle Palm Terrace within the Saturnia Lakes Community. The water main will extend west through the landscape area and perimeter berm and into the Logan Boulevard right-of-way. The main will then head south on the east side of Logan Boulevard for approximately 350' before entering into the Island Walk Community. The south terminus point will be on the east side of Island Walk Circle on the southeast corner of Maupiti Way and Island Walk Circle.

The project will consist of installing approximately 537 LF of 8" PVC DR14 water main and 41 LF of 8" HDPE DR11 of directional bore water main, a fire hydrant assembly, permanent bacteriological sample point, and small water service reconnection at the north terminus of the project. Air release valves are anticipated at high points of the water main. Other than the directional bore, the project is anticipated to be open cut including work across Island Walk Circle. The County is anticipating to use approximately 400 LF of PVC Certa-Lok pipe.

### **MEASUREMENT AND PAYMENT**

#### **Mobilization/Demobilization:**

Measurement and payment for mobilization/demobilization shall be by lump sum for the project and shall not exceed 10% of the amount of the base bid. The work shall include, but not be limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to and from the project site, establishment of storage/staging areas, safety equipment, and first aid supplies, sanitary and other facilities. The cost of bonds and insurance and any other pre-construction expenses necessary for the start of the work, excluding the cost of construction materials, shall be included. Short-term dewatering permit from agencies having jurisdiction as necessary and the application/transfer of County right-of-way permits is also included where not addressed in other sections. This item shall also include survey stakeout and the pre-construction video which shall be completed in one phase. The pre-construction video shall be completed in accordance with the Collier County Utility Standards. A total of three (3) copies shall be provided. The Pre-Construction video shall be supplemented with still photographs as needed. As part of this line item, the Contractor shall be responsible for implementation, maintenance, and inspection of stormwater pollution prevention control measures in accordance with state and local regulations.

#### **Record Survey/Record Drawings**

Record Survey/Record Drawings: Measurement and payment shall be by lump sum for the project. The record survey shall be on-going with the construction. Record drawings shall be completed at the end of the project. Payment will be provided during construction based upon the work completed in accordance with Collier County Standards. Up to three (3) electronic copies and three (3) hard copies shall be provided as directed by the County.



### **8" PVC DR 14 Water Main**

Measurement and payment shall be by horizontal linear feet installed. Work shall include all labor, material, and equipment as necessary for saw cutting and the removal of existing pavement such as driveway, roadway, curbing, and sidewalk where necessary; excavation; installation of water main, bends, and miscellaneous fittings; joint restraints, including splines for Certa-lok pipe; temporary bacteriological sample points; backfill; compaction; testing, flushing, disinfection and bacteriological cleaning. Surface restoration such as sod and pavement are to be paid under separate items. The County shall provide all PVC pipe, bends, retainer glands, and joint restraints. Contractor shall use flowable fill under roadways and driveways.

### **8" HDPE DR11 Water Main**

Measurement and payment shall be by horizontal linear feet installed. Work shall include all labor material and equipment as necessary for the directional bore of HDPE pipe (following County Right of Way manual requirements). This includes the installation of transition couplings, excavation, backfill, compaction, fusing of pipe, removal of drilling fluid and testing, flushing, disinfection and bacteriological cleaning. County to provide HDPE pipe and transition couplings. Surface restoration to be covered under separate items.

### **Fire Hydrant Assembly**

Measurement and payment shall be per each. Work shall include all labor, material, and equipment as necessary to install all fittings, tees, miscellaneous piping, isolation valves, fire hydrant, valve boxes and pads and pavement markers. The County shall provide fire hydrants, bends, tees, isolation valves and boxes, retainer glands and joint restraints. Contractor shall coordinate with Fire Department on new identification tags for any proposed fire hydrants that are not replacing existing hydrants.

### **8" Gate Valve**

Measurement and payment shall be per each. Work shall include all labor, material, and equipment as necessary to excavate, install valves and restraints, backfill, compaction, installation of valve boxes, pads, and brass markers. The County shall provide all gate valves, valve boxes, and retainer glands.

### **Permanent Bacteriological Sample Point**

Measurement and payment shall be per each. Work shall include all labor, material, and equipment as necessary for the removal and replacement of the existing bacteriological sample point and includes the installation of piping, fittings, permanent bacteriological assembly and enclosure for a complete assembly. The County shall provide bacteriological sample assemblies and enclosures.

### **3/4" Water Service Reconnection**

Measurement and payment shall be per each. Work shall include all labor, material, and equipment as necessary for the reconnection of the existing service connection and includes the installation of piping, fittings, tapping saddle, valves for a complete assembly. The County shall provide miscellaneous parts and polytubing as specified in the parts list.



### **8" Air Release Valve**

Measurement and payment shall be per each. Work shall include all labor, material, and equipment as necessary to install fittings, piping, valves, air release assembly and enclosure for a complete assembly. The County shall provide air release assemblies and enclosures.

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

Measurement and payment shall be by lump sum for the project. Work shall include all labor, material, and equipment as necessary to excavate, installation of all tees, fittings, miscellaneous piping, joint restraints, retainer glands, backfilling, installation of flowable fill, and compaction. Surface restoration such as sod, landscaping, asphalt roadway, curb, driveway, and pavement is to be paid under separate items. The County shall provide tees, retainer glands, and joint restraints.

### **Sod and Landscaping Surface Restoration**

Measurement and payment shall be by lump sum for the project. Contractor and Project Inspector are to determine the percent coverage and type of sod to be installed. Any landscape plantings shall be replaced with like size and type of planting. Work shall include all labor, material, and equipment as necessary for topsoil, fine grade, sod, and maintenance of landscape for a minimum of 30 days or until rooted, whichever occurs last.

### **Pavement Restoration/Sidewalk Restoration**

Measurement and payment shall be by lump sum. It shall include all labor, material, and equipment as necessary for temporary and permanent asphalt patching, pavement preparation including leveling course at patches, pavement overlay to the specified depth, tapering, temporary and permanent striping, restoration of existing curbing to match existing. Sidewalk restoration to include, base rock and subgrade, placement of concrete to match existing. Flowable fill to be covered under separate line item.

Collier County shall provide all tees, PVC pipe (C-900 and SCH 80), HDPE Pipe, bends, transition couplings, retainer glands, joint restraints, fire hydrants, gate valves, valve boxes, poly tube, and necessary fittings.

The Contractor will be responsible for providing necessary fittings, appurtenances, and materials not included in the County's list of pre-purchased materials. Contractor shall provide imported backfill if needed.

County requires a 7-day minimum notice for a shutdown of water mains and service connections. Scheduling of shutdowns is at the discretion of the County due to operational needs and concerns. The Contractor is responsible for repairs/replacement to existing irrigation piping and landscape material in the right-of-way required to be removed as part of the project.



**ALLOWANCE**

This project includes an owner-directed allowance. The allowance funds are to be used to address unforeseen conditions or items. Allowance funds must be approved in advance as required in the contract documents and will be on a time and material, lump sum, or unit price basis. Prior to the proposed work starting, a signed work directive with an accompanying change order and required back up materials shall be issued by the County Project Manager to the Contractor.