



NORTH MARCO WATER MAIN IMPROVEMENTS

SUPPLEMENTAL REQUIREMENTS ISSUED FOR CONSTRUCTION WATER MAIN REPLACEMENT

DECEMBER 2024

Bowman

Bowman Project No. 340545-01-001/2023.126

**CITY OF MARCO ISLAND PUBLIC WORKS AND
WATER AND SEWER DEPARTMENT**

NORTH MARCO WATER MAIN REPLACEMENT

SUPPLEMENTAL PROJECT REQUIREMENTS

The following Supplemental Project Requirements have been provided for the North Marco Water Main Replacement project. These Project Requirements are intended to supplement the existing City of Marco Island Construction Standards Handbook for Work Within the Public Right of Way (latest edition) and the Water & Sewer Department Manual of Standards and Specifications (Latest Edition) Technical Specifications. The Construction Standards Handbook and the Water & Sewer Department Manual of Standards and Specifications. In case of conflict, the most stringent shall apply.

CITY OF MARCO ISLAND

NORTH MARCO WATER MAIN REPLACEMENT SUPPLEMENTAL REQUIREMENTS

DIVISION 1 – GENERAL REQUIREMENTS

Section 01110 – Summary of Work
Section 01130 – Measurement and Payment
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FDOT LAP AGREEMENT SPECIFICATION PACKAGE

ADDITIONAL ITEMS

Item No. 1 – FDEP Water General Permit
Item No. 2 – Summary of Roadway & Utility Trench Testing Requirements
Item No. 3 – City of Marco Island Asbestos Work Plan

SECTION 01110
SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

General description of the Work required under this Contract. All work shall be completed in accordance with the construction plans, City of Marco Island Construction Standards Handbook for Work Within the Public Right of Way and Water & Sewer Department Manual of Standards and Specifications and the Supplemental Project Requirements.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work for this Contract shall include, but not be limited to, new water main construction, connection to existing mains, water main abandonment in place by grouting, abandonment by removal, testing and clearance. The proposed work shall be conducted to minimize disruption to the community and residents. Water service shall be maintained throughout construction, except as coordinated and scheduled with the City. This shall include the installation of a temporary watermain with service connections in the alley way.
- B. The Contract Amount shall be determined utilizing the Bid Form as provided. All materials, labor and equipment shall be provided by the Contractor.
- C. All excavation shall be unclassified with no additional payment for excavation of rock, muck or other unsuitable materials. No additional payment shall be made for dewatering. Contractor shall be responsible for the determination of all field conditions.
- D. The Contractor shall organize, coordinate schedule and execute the Contract Work so as to be in strict compliance with the following:
 - 1. Special Project Requirements as noted on Contract Drawings
 - 2. Section 01140 with special attention to the requirements for written shut-down plans.
- E. The Work also includes temporary measures as may be required to shut-off or control the flows affecting execution of the Work. Before proceeding with such temporary measures, the Contractor shall submit details for approval. Refer to Section 01140 for additional information and requirements.
- F. Execution of the Work will require coordination and planning with the City's Water & Sewer Department and the City's Project Manager. The Work shall be executed in a manner and schedule that does not interfere with the on-going normal operations of the City water system.

1.03 SITE ACCESS AND STORAGE

- A. Site access shall be limited to the existing right of ways and shall be coordinated with the water main replacement project. All temporary roadway detours, road closures and maintenance of traffic shall be coordinated, reviewed, and approved by the City. Contractor shall minimize disruption of driveway accesses and shall notify the residents by personal contact and door hanger 24 hours prior to the work..
- B. The Contractor shall be responsible for all material and equipment storage. Storage shall be limited in the roadway right of way to that equipment in active use and materials (two-week inventory). Any storage on private property shall be coordinated with individual property owners with a signed agreement. A copy shall be provided to the City for verification. All storage areas shall be returned to their pre-construction condition. All storage areas shall be permitted and fenced in accordance with local regulations.
- C. All areas utilized for storage of removed AC pipe shall meet with the City of Marco Island requirements. Those sites shall be fenced and secured with all AC material properly stored in containers until final disposal.

1.04 WORK BY OTHERS

During the construction period for this project, the Owner (either with his own forces or under a separate contract) may be performing other work that will require the cooperation of the Contractor in scheduling and his coordination to avoid conflicts. This coordination shall include submitting weekly schedules and cooperating with other contractors.

END OF SECTION

SECTION 01130

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. Payment for the various items in the Schedule of Payment as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, taxes, materials, commissions, transportation and handling, bonds, permit fees, insurance, overhead and profit, and incidentals appurtenant to the items of Work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). Such compensation shall also include payment for any loss or damages arising directly or indirectly from the Work.
- B. The Contractor's attention is called to the fact that the quotations for the various items of Work are intended to establish a total price for completing the Work in its entirety. Should the Contractor feel that the cost for any item of Work has not been established by the Schedule of Payment items or this Section, it shall include the cost for that Work in some other applicable bid item, so that its proposal for the project does reflect its total price for completing the Work in its entirety.

1.02 PAYMENT ITEMS

- A. The Contractor shall submit a Schedule of Payment Values for review with the return of the executed Agreement to the Owner. The schedule shall contain the installed value of the component parts of Work broken down into labor and material categories for the purpose of making progress payments during the construction period.
- B. The schedule shall be given in sufficient detail for proper identification of Work accomplished. The Schedule of Payment Values shall coincide with the activities of work detailed in the construction progress schedule and the construction network analysis to accurately relate construction progress to the requested payment. Each item shall include its proportional share of all costs including the Contractor's overhead, contingencies, and profit. The sum of all scheduled items shall equal the total value of the Contract.
- C. If the Contractor anticipates the need for payment of materials stored on the project site, it shall also submit a separate list covering the cost of materials, delivered, and unloaded with taxes paid. This list shall include a beginning amount received during the period, the amount installed during the period, and the end quantity and cost in a spreadsheet. As well as supporting invoices at the time they are included in the pay applications and paid invoices no later than the second pay application thereafter.

This list shall also include the installed value of the item with coded reference to the Work items in the Schedule of Payment Values. Similar procedures shall be employed for undelivered specifically manufactured equipment and materials as specified herein.

- D. Payment will not be made for materials stored offsite, except in designated storage area.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. Make payment on the basis of work actually 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 shall be completed in accordance with the following. Payment for each item includes compensation for cleanup and restorations. Cost of cleanup and surface restorations (including pavement replacement) will be considered as the percentage retained in accordance with the Contract Documents, and complete payment will not be made until cleanup, restorations and as-builts are completed.
 - 1. 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 for that work. The work shall include, but not be limited to, field measuring, those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities. The cost of bonds, insurance, and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials, shall be included. Mobilization shall not exceed 60% of the bid item.
 - 2. Pre-Construction Video: Measurement and Payment shall be Lump Sum for the Project. If the Pre-Construction Video is taken in Phases, payment will be prorated during construction based upon the work completed. Pre-Construction Video shall be completed in accordance with the City of Marco Island Utility Standards. The Pre-Construction Video shall be supplemental with still photographs as needed.
 - 3. Record Survey/Record Drawings: Measurement and Payment shall be Lump Sum for the Project. The Record Survey shall be ongoing with the construction and Record Drawings shall be completed within fifteen days of Substantial Completion.
 - 4. Stormwater Pollution Control: Measurement and Payment shall be Lump Sum for the project and shall be prorated during construction. The work shall include, but

not be limited to, providing and installing stormwater pollution control devices, inspection and maintenance, and removal upon completion of work.

5. Water Main: Measurement and Payment shall be by horizontal lineal foot for each size and type. Work shall include all labor, material, and equipment as necessary to excavate, provide, install water main and miscellaneous fittings, markers, backfill, compact, provide testing, flushing, connections and provide surface restoration for a complete installation.
6. Gate Valves: Measurement and Payment shall be per each per size identified. Work shall include all labor, material, and equipment as necessary to provide and install all valves, valve boxes, pads and markers as identified.
7. Temporary Flushing Port/TBSV/Connection: Measurement and Payment shall be per each size as required. Work shall include all labor, material, and equipment necessary to install a full bore blow off assembly to be utilized during flushing of water mains. It shall include a temporary bacterial sample valve. Upon completion and acceptance, the blow off assembly shall be removed and disposed of and final connection made with all necessary pipe and fittings.
8. Temporary Water Main Jumper/Final Connection: Measurement and Payment shall be per each as required. Work shall include all labor, material, and equipment as necessary to install a temporary water main connection including fittings, backflow device, TBSV, and miscellaneous testing. Upon final acceptance, the temporary jumper shall be removed, and final connection made with all necessary pipe and fittings.
9. Water Service: Measurement and Payment shall be per each water service. Work shall include all labor, material, and equipment necessary for utility coordination, excavation, and installation of new water service under roadways to the right of way line, connection to new water main and coordination for service transfer, backfilling, compacting and surface restoration.
10. Additional Water Main Deflection: Measurement and Payment shall be per each additional water main deflection that may be required due to unforeseen conditions. It shall include all labor, material, and equipment necessary for the deflection including excavation, installation of extra fitting, pipe and pipe restraints, backfilling, compacting and surface restoration.
11. Water Main Pipe Removal (AC): Measurement and Payment shall be per lineal foot of pipe removed by size. It shall include all labor, material, and equipment necessary to excavate, remove the existing pipe, backfill, compact, and provide surface restoration. Contractor shall be responsible for all existing utility coordination and proper disposal of all removed materials.
12. Water Main Pipe Grouting: Measurement and Payment shall be per lineal foot of pipe grouting in place. It shall include all labor, material, and equipment necessary to grout the existing pipe in place. It shall include, but not be limited to, establishment of access port for grouting and verification of complete grouting.

13. Water Main Miscellaneous Abandonment: Measurement and Payment shall be lump sum for the miscellaneous abandonment of the existing water system. This shall include all labor, material, and equipment necessary for disabling of valves, removal of valves, valve pads, blow offs, existing meter boxes, fire hydrants, capping of existing mains, and other miscellaneous items.
14. Temporary Water Main: Measurement and Payment shall be Lump Sum for the installation of a temporary 2" water main in the alley way to provide water service during the construction of the new main. It shall include temporary connection at both ends, connection to the existing service, flushing, bacteriological clearance prior to being placed into temporary service. Upon clearance of the new main, the existing water service shall be transferred, and the temporary water main removed from service.
15. Fire Hydrant Assembly: Measurement and Payment shall be per each, and type as required. Work shall include all labor, material, and equipment as necessary to install all fittings, tees, miscellaneous piping, isolation valve, fire hydrant assembly, pads, and pavement markers. As specifically identified, pipe bollards by be required.
16. Owner Directed Contingency: Measurement and Payment shall be on a time and material basis or determined lump sum prior to work being performed. A work directive with the associated backup materials shall be issued by the City Project Manager prior to the work being completed by the Contractor. This shall be for unanticipated work only due to unforeseen conditions.

END OF SECTION

SECTION 01135
CONTINGENCY FUND

PART 1 – GENERAL

1.01 SECTION INCLUDES

1.02 CONTRACT CONTINGENCY

- A. The Contractor shall include in its Contract Price an amount equal to Contingency Fund shown in the bid schedule for additional work required due to unforeseen conditions.
- B. The price negotiated (between Contractor and Owner) for any work falling under this category shall be compensation in full for all labor, materials and equipment necessary. Prior to work commencing, the Contractor shall submit their standard labor and equipment rates for City review. Upon review and acceptance, these standard labor and equipment rates shall serve as the basis of compensation for allowance work.
- C. The provisions for the Contingency Fund are not a guarantee the Contractor will be paid any portion of the full amount of such Contingency Fund.

1.03 CONTINGENCY FUND

- A. Refer to the Bid Schedule for the Contingency Fund amount.

END OF SECTION

SECTION 01140

MAINTENANCE OF UTILITY OPERATIONS

PART 1 - GENERAL

1.01 THE REQUIREMENT

- A. The existing water systems will be maintained in continuous operation by the Owner during the entire construction period of the Contract as hereinafter specified. The intent of this Section is to outline the minimum requirements necessary to provide continuous wastewater service throughout the construction period.
- B. Work shall be scheduled and conducted by the Contractor so as not to impede any water distribution or transmission system, except as explicitly permitted hereinafter. In performing the work shown and specified, the Contractor shall plan and schedule his work to meet the system operating requirements, and the constraints and construction requirements as outlined in this Section. No discharge of raw or inadequately treated wastewater shall be allowed. The Contractor shall pay all civil penalties, costs, assessments, etc., associated with any discharge of raw or inadequately treated wastewater associated with the Contractor's work.

1.02 GENERAL CONSTRAINTS

- A. The Contractor shall schedule the Work so that the facilities are maintained in continuous operation. All processes shall be maintained in continuous operation during the construction period. Several items of work require connections of new piping and/or utilities to existing piping, utilities, or modifications to existing piping, utilities or facilities. The City will not allow shutdowns of any of its systems (in part or in its entirety) to facilitate these connections and/or modifications without prior written approval. The Contractor shall submit a written plan to the Owner and Engineer describing the process shut-down and a detailed schedule along with all planned resources. The plan for each process shut-down must be submitted at least ten working days prior to the scheduled shut-down. The Contractor shall be responsible for, and include in its contract bid amount, all costs associated with necessary work to isolate the existing piping, utilities or facilities to complete the required connections and/or modifications. Necessary work required by the Contractor shall include, but shall not be limited to, temporary bypass pumping and piping, wet taps, line stops, line plugs, and temporary bulkheads.
- B. The Contractor shall review all bidding documents and shall be responsible to determine all such connections or modifications, and the scope and cost of all temporary measures required to isolate the work area without the need for a shutdown of the affected facility, process area, piping or utility.
- C. The Owner shall have the authority to order Work postponed, stopped or prohibited that would, in his opinion, unreasonably result in interrupting the necessary functions of the plant operations.

- D. The Contractor shall include in his cost to complete the connections outside normal working hours (midnight to 8:00 am). This shall include, but not be limited to, overtime temporary lighting and special maintenance of traffic.
- E. The Contractor shall provide the services of emergency repair crews on call 24-hours per day at no additional cost to the Owner.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01150

PROTECTION OF EXISTING FACILITIES

PART 1 – GENERAL

1.01 SECTION INCLUDES

Requirements for protection of existing facilities and completed construction.

1.02 GENERAL

- A. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The Contractor shall verify the exact locations and depths of all utilities shown and the Contractor shall make exploratory hand excavations of all utilities that may interfere with the Work. All such exploratory hand excavations shall be performed as soon as practicable after award of Contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's Work. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Engineer.
- C. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

1.03 RIGHTS-OF-WAY

- A. The Contractor shall not do any Work that would affect any oil, gas, sewer or water pipeline, any telephone, telegraph or electric transmission line, any fence or any other structure nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the Owner has secured authority therefor from the proper party. After authority has been obtained, the Contractor shall give said party due notice of its intention to begin Work.
- B. When two or more contracts are being executed at one time on the same or adjacent land in such manner that Work on one contract may interfere with that of another, the Owner shall determine the sequence and order of the Work.
- C. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, in the manner, and at the times permitted.
- D. No such decision as to the method or time of conducting the Work or the use of territory shall be made the basis of any claim for delay or damage.

- E. The Owner's Right of Access is reserved to the Owner and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property.

1.05 PROTECTION OF SURVEY STREET OR ROADWAY MARKERS

The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration. It shall be the Contractor's responsibility to notify the Owner of the time and location that Work will be done. Such notification shall be sufficiently in advance of construction so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration.

1.06 EXISTING UTILITIES AND IMPROVEMENTS

- A. Maintaining in Service: All oil and gasoline pipelines, power, and telephone or other communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, wire or cable.
- B. The Contractor shall protect all underground utilities and other improvements which may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.
- C. Where the proper completion of the Work requires the temporary or permanent removal, or relocation of an existing utility or other improvement which is shown, the Contractor shall contact the utility owner and proceed as specified in the Contract Documents.
- D. Unrecorded Underground Utilities or Improvements
 - 1. Plans show features of topography and underground utilities, but do not purport to show in complete detail all such lines or obstructions.
 - 2. Existing utilities shown on Drawings are based upon available records. Data regarding existing utilities is presented for Contractor's convenience only and shall not be used as a basis for claims of extra compensation.
 - 3. Examine available records and make exploratory excavations whenever necessary to determine locations of existing pipes, valves, or other underground improvements.
 - 4. Take prudent precautions not to damage unrecorded underground utilities and improvements.

5. If unrecorded underground utilities or other improvements are encountered, immediately notify the Engineer, and inform the Engineer of the conditions encountered. Include written report of conditions encountered with Progress Schedule covering period in which unrecorded underground utilities or improvements were encountered. Provide unscheduled impact on CPM schedule for each occurrence. If unrecorded underground utilities or improvements conflict with Work, changes shall be made under the terms of the Agreement. Changes to the Work shall be as approved by the Owner.
6. The Contractor shall contact the affected utility owner and proceed as specified in the Contract Documents.

1.07 TREES WITHIN STREET RIGHTS-OF-WAY AND PROJECT LIMITS

- A. The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs; and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency or owner.
- B. All existing trees and shrubs which are damaged during construction shall be repaired or replaced by the Contractor as specified in the Contract Documents.

1.08 NOTIFICATION BY THE CONTRACTOR

Prior to any excavation in the vicinity of any existing underground facilities including all water, sewer, storm drain, gas, petroleum products or other pipelines; all buried electric power, communications or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way, the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owners or agencies can locate their facilities or be present during such work if they so desire.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01200
PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRECONSTRUCTION MEETING

- A. A preconstruction meeting will be held after Award of Contract, but prior to starting work at the site. The City Representative shall prepare and distribute the meeting agenda and shall preside at the meeting. The City Representative shall record and distribute minutes of the proceedings and decisions.
- B. Attendance:
 - 1. Owner
 - 2. Engineer of Record
 - 3. Construction Engineer/Inspector
 - 5. Contractor
 - 6. Major subcontractors
- C. Minimum Agenda:
 - 1. Tentative construction and submittal schedules
 - 2. Critical work sequencing
 - 3. Designation of responsible personnel
 - 4. Processing of Field Decisions and Change Orders
 - 5. Adequacy of distribution of Contract Documents
 - 6. Submittal of Shop Drawings and samples
 - 7. Procedures for maintaining record documents
 - 8. Use of site and Owner's requirements
 - 9. Major equipment deliveries and priorities
 - 10. Safety and first aid procedures
 - 11. Security procedures
 - 12. Housekeeping procedures
 - 13. Processing of Partial Payment Requests

14. General regard for community relations

1.02 PROGRESS MEETING

- A. Progress meetings will be held biweekly or as needed at a site to be determined during the performance of the field work of this Contract. Additional meetings may be called as progress of work dictates.
- B. The City Representative will prepare and distribute agenda, preside at meetings and record minutes of proceedings and decisions. The City Representative will distribute copies of minutes to participants.
- C. Attendance:
 - 1. Owner
 - 2. Engineer
 - 3. Construction Engineer/Inspector
 - 4. Contractor
 - 5. Subcontractors, only with Engineer's approval or request, as pertinent to the agenda
- D. Minimum Agenda:
 - 1. Review and approve minutes of previous meetings.
 - 2. Review progress of Work since last meeting.
 - 3. Review proposed 2 and 4 week construction schedule.
 - 4. Note and identify problems which impede planned progress.
 - 5. Develop corrective measures and procedures to regain planned schedule.
 - 6. Revise construction schedule as indicated and plan progress during next work period.
 - 7. Maintaining of quality and work standards.
 - 8. Complete other current business.
 - 9. Schedule next progress meeting.

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION (not used)

END OF SECTION

SECTION 01330

SUBMITTALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for submittals.

1.02 SCHEDULE

- A. Transmit submittals in accordance with approved Progress Schedule, and in such sequence to avoid delay in the Work or work of other contracts.
- B. Do not fabricate products or begin work that requires submittals until return of submittal with Engineer acceptance.
- C. Identify the appropriate specification sections and parts on each submittal.

1.03 CONTRACTOR REVIEW

- A. Review submittals prior to transmittal; determine and verify field measurements, field construction criteria, manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
- B. Contractor's submittal review shall include coordination as described in other Sections.
- C. Sign each sheet of shop drawings and product data, and each sample; label to certify compliance with requirements of Contract Documents. **Notify Engineer of any deviations from requirements of Contract Documents in writing at time of submittal.**
- D. Identify the relevant specification sections and parts on each submittal.

1.04 SUBMITTAL REQUIREMENTS

- A. Apply Contractor's stamp, signed certifying to review and approval, verification of products, field dimensions and field construction criteria, and coordination of information with requirements of Work and Contract Documents.
- B. Number each submittal sequentially beginning with 001. Each submittal shall describe only one product or equipment. Re-submittals shall use the same number identifier with a letter suffix; e.g. 001A. Submittals shall identify the relevant Specifications Section(s).
- C. Coordinate submittals into logical groupings to facilitate interrelation of the several items:
 - 1. Finishes that involve Engineer selection of colors, textures, or patterns.

2. Associated items that require correlation for efficient function or for installation.
- D. Submit under transmittal letter. Identify Project by title and number.
 - E. If any submittal requires more than three reviews (normally an original and two re-submittals), the Engineer may charge the Contractor for additional review time based on his actual incurred time and expenses. These charges shall be summarized for the Contractor and deducted from the Contractor's next pay request.
 - F. The Contractor may expect most submittals to be reviewed within 21 calendar days following receipt of the submittal. Certain submittals such as Owner color selection or instrumentation may require a longer review time.
 - G. The submission of submittals will be by email subject to the requirements noted below. Before the first electronic submittal, the Contractor must meet with the Engineer to review the format and protocols for such submittals.

Any digital file submittal or re-submittal must be complete in every respect. Any digital file submittal must include only one piece of material or equipment.
 - H. In the event that digital transmission of submittals is not used or allowed, then email shall not be used for transmission of the following submittals: (a) construction schedules, (b) electrical submittals, (c) instrumentation submittals, (d) structural submittals, (e) any submittal over one page in length and (f) any submittal in color. For non-digital submittals, provide the hard copies as noted in Article 1.05 below.
 - I. Provide submittals on the following items and as required by the Contract Documents:
 1. Piping, valves, fittings, flange adapters, pipe supports and pipe appurtenances.
 2. Asbestos concrete pipe and material qualifications, plans, permits, etc.
 3. Other permits and test results.
 4. Temporary water main measures and shut-down plans; refer to Sections 01110 and 01140.

1.05 SCHEDULE OF SUBMITTALS

- A. Submit copies of Preliminary Schedule of Submittals prior to the Preconstruction Conference.
- B. Within 10 days after Preconstruction Conference, submit the revised copies of Schedule of Submittals.

1.06 PROGRESS SCHEDULES

Submit progress schedules in accordance with Contract documents.

1.07 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Title each drawing with Project name and number. Transmittal letter shall reference item as listed on Submittal Schedule.
- B. Identify each element of drawings by reference to sheet number and specification section of Contract Documents.
- C. Identify field dimensions; show relation to adjacent or critical features or Work or products.
- D. Submit outline of manufacturer's representative services with Shop Drawings. Outline of manufacturer's representative services shall include man-hours or man-days of service to be provided for each of the following:
 - 1. Minimum man-hours or man-days of service to be provided for installation inspection, assistance, and certification.
 - 2. Minimum man-hours or man-days of service to be provided for functional testing and start-up.
 - 3. Minimum man-hours or man-days of service to be provided for training Owner's operation and maintenance personnel.
 - 4. Outline of manufacturer's representative services shall identify services and minimum man-hours, or minimum man-days, to be provided by factory representative and by equipment supplier, or distributor.
- E. Provide a Spare Parts List including both the spare parts recommended by the equipment manufacturer for the first year of service and any spare parts specified in the individual specification sections.

1.08 PRODUCT DATA

- A. Submit only pages that are pertinent. Mark or highlight each copy of standard printed data to identify pertinent products. Show reference standards, performance characteristics, and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the Work. Delete information not applicable.

1.09 SAMPLES

- A. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures, and patterns, for Owner selection.
- B. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- C. Approved samples that may be used in the Work are indicated in the Specification section.

- D. Label each sample with identification required for transmittal letter.
- E. Provide field samples of finishes at Project, at location acceptable to Engineer, as required by individual Specifications section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.
- F. Accepted samples shall establish the standards by which the completed Work will be judged.

1.10 TEST REPORTS

Submit test reports as specified in Section 01430 – Materials Testing

1.11 REQUESTS

If there are any questions about interpretations of plans, specifications or Contract Documents, the Contractor may submit a written request for information or a request for clarification to the Engineer.

1.12 RESUBMITTAL

- A. Make resubmittals under procedures specified for initial submittals; identify changes made since previous submittal.
- B. Identify resubmittal as a resubmittal and reference previous submittal.
- C. Identify changes made since previous submittal.

1.13 DISTRIBUTION

- A. Distribute reproductions of shop drawings, copies of product data, samples, substitutions and other submittals which bear Engineer's review stamp, to job site file, Record Documents file, subcontractors, suppliers, and other entities requiring information.
- B. Instruct recipients to promptly report any inability to comply with provisions.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

SECTION 01410

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for obtaining permits and complying with permits.

1.02 PERMITS

- A. Contractor will obtain City, State and Federal permits not obtained by City, including but not limited to, South Florida Water Management District dewatering permits, right-of-way permits, burning permits, tree removal permits, excavation permits, demolition permits and Florida Dept. of Environmental Protection NPDES Stormwater Pollution Prevention Plan.
- B. The Contractor must file a minimum of 48 hours prior to start of construction a Notice of Intent with the DEP.
- C. Contractor shall schedule and document all inspections and re-inspections (if needed) required by permitting agencies.
- D. City will obtain the DEP engineering approvals including AC pipe and material disposal permits.
- E. Documents:
 - 1. City will furnish signed and sealed sets of Contract Documents for permit applications.
 - 2. City will furnish copies of permits obtained by City and required to be posted on the job site. Copies of permits will be forwarded to Contractor prior to start of construction.
 - 3. Contractor shall furnish copies of permits obtained by the Contractor. Forward copies of permits to the City prior to commencement of work requiring permits.

1.03 CODES AND ORDINANCES

- A. Codes applicable to this project include, but are not necessarily limited to, the following:
 - 1. Standard building codes as applicable.
 - 2. Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

3. Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
 4. Accessibility Requirements Manual, Department of Community Affairs, Florida Board of Building Codes and Standards.
 5. The Americans with Disabilities Act (ADA) 1990 36 CFR Part 1191 Architectural and Transportation Barriers Compliance Requirements.
 6. NFPA 101 Life Safety Code, Latest Edition.
 7. Standard Fire Prevention Code, Latest Edition.
 8. State Fire Marshal's Uniform Fire Safety Rules.
- B. All materials and workmanship shall conform to local city or county ordinances.
- C. If there is a conflict in regulations, codes, or regulations and codes, the more stringent requirements shall govern.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION

3.01 VERIFICATION AND CONFORMANCE

- A. Conform to all requirements of all permits.

END OF SECTION

SECTION 01420

REFERENCE STANDARDS

PART 1 - GENERAL

1.01 SECTION INCLUDES

Description of reference standards and requirements relative to reference standards.

1.02 QUALITY CONTROL

For products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

1.03 REFERENCE PUBLICATIONS

- A. The date of reference publications shall be the latest in effect at the time of the award of Contract.
- B. Reporting and resolving discrepancies relative to reference publications shall be as specified in the General Conditions and Division 1 of the specifications.
- C. Document precedence shall be as specified in the General Conditions.

1.04 SCHEDULE OF STANDARDS ORGANIZATIONS

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturer's Association
AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AFBMA	Anti-Friction Bearing Manufacturer's Association, Inc.
AGC	Associated General Contractors of America
AGMA	American Gear Manufacturer's Association
AHDGA	American Hot Dip Galvanizers Association
AI	Asphalt Institute
AIA	American Institute of Architects

AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
APHA	American Public Health Association
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASA	Acoustical Society of America
ASAE	American Society of Agricultural Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers
ASMM	Architectural Sheet Metal Manual
ASTM	American Society for Testing and Materials
AWPA	American Wood-Preservers' Association
AWPI	American Wood Preservers Institute
AWWA	American Water Works Association
AWS	American Welding Society
BHMA	Builders Hardware Manufacturer's Association
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
DEP	Florida Department of Environmental Protection

DIPRA	Ductile Iron Pipe Research Association
EIA	Electronic Industries Association
EJCDC	Engineers' Joint Contract Documents Committee
EPA	Environmental Protection Agency
ETL	Electrical Test Laboratories
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FS	Federal Specification General Services Administration Specification and Consumer Information Distribution Section (WFSIS)
HI	Hydraulic Institute
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IMIAC	International Masonry Industry All-Weather Council
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
ISO	International Organization for Standardization
MBMA	Metal Building Manufacturer's Association
MTI	Marine Testing Institute
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electric Code
NEMA	National Electrical Manufacturers' Association
NFPA	National Fire Protection Association
NRCA	National Roofing Contractor's Association
OSHA	Occupational Safety and Health Administration, Federal Department of Labor

PCA	Portland Cement Association
SBC	Standard Building Code
SDI	Steel Door Institute
SJI	Steel Joist Institute
SMACCNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Steel Structures Painting Council
UL	Underwriter's Laboratories, Inc.
WEF	Water Environment Federation

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

SECTION 01430

MATERIALS TESTING

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements and procedures for testing laboratory services.

1.02 REFERENCES

- A. General: as specified in Section 01420 - Reference Standards.
- B. ANSI/ASTM Standards
 - 1. ANSI/ASTM D3740 Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
 - 2. ANSI/ASTM E329 Practice for Inspection and Testing Agencies for Concrete, Steel, Bituminous Materials as Used in Construction
- C. FDOT Standards and Specifications

1.03 SELECTION AND PAYMENT

- A. The Contractor shall employ services of one or more independent testing laboratories to perform specified inspection and testing.
- B. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.

1.04 QUALITY ASSURANCE

- A. Standards: Comply with requirements of ANSI/ASTM E329 and ANSI/ASTM D3740.
- B. Laboratory: Authorized to operate in State in which Project is located.
- C. Laboratory Staff: Maintain a full time Registered Professional Engineer on staff to review services.
- D. Testing Equipment: Calibrated at reasonable intervals with devices of accuracy traceable to either National Bureau of Standards (NBS) Standards or accepted values of natural physical constants.

1.05 LABORATORY RESPONSIBILITIES

- A. Test samples submitted by Contractor.

- B. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
- C. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- E. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
- F. Perform additional inspections and tests required by Engineer.
- G. Attend preconstruction conferences and progress meetings as appropriate.

1.06 LABORATORY REPORTS

- A. After each inspection and test, the laboratory shall promptly submit three (3) copies of laboratory report to Engineer, Contractor and County.
- B. Report shall include:
 - 1. Date issued,
 - 2. Project title and number,
 - 3. Name of inspector or technician,
 - 4. Date and time of sampling or inspection,
 - 5. Identification of product and Specifications section,
 - 6. Location in the Project,
 - 7. Type of inspection or test,
 - 8. Date of test,
 - 9. Results of tests,
 - 10. Conformance with Contract Documents.
- C. When requested by Engineer, provide interpretation of test results.

1.08 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. Laboratory may not approve or accept any portion of the Work.
- C. Laboratory may not assume any duties of Contractor.
- D. Laboratory has no authority to stop the Work.

1.09 CONTRACTOR RESPONSIBILITIES

- A. Deliver to laboratory, at designated location, adequate samples of proposed materials that require testing, along with proposed design data as required.
- B. Cooperate with laboratory personnel, and provide access to the Work.
- C. Provide incidental labor and facilities to provide access to Work to be tested, to obtain and handle samples at the site or at source of Products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- D. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.
- E. Payment for testing and laboratory services.

1.10 SCHEDULE OF INSPECTIONS AND TESTS

As specified in individual Product Specification sections

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

SECTION 01470

COLOR AUDIO-VIDEO PRECONSTRUCTION RECORD

PART 1 - GENERAL

1.01 SCOPE

Prior to commencing overall work, the Contractor shall take a continuous color audio-video digital recording of the Project site to serve as a record of pre-construction conditions. At each stage of construction, additional video recording of specific work areas shall be required.

1.02 APPROVAL

No construction shall begin prior to review and approval by Engineer of the video recording covering overall construction area and specific work areas. The Engineer shall have authority to reject all or any portion of the recording not conforming to specifications and order that it be done again at no additional charge. The Contractor shall reschedule unacceptable coverage within five days after being notified. The Engineer shall designate those areas, if any, to be omitted from or added to the audio-video coverage. Recordings shall not be made more than 60 days prior to construction in any area. All recordings and written records shall become property of the City. Prior to video recording, there will be a meeting between Engineer, Contractor and electrographer.

1.03 PROFESSIONAL ELECTROGRAPHERS

Engage the services of a professional electrographer. The color audio-video recording shall be prepared by a responsible commercial firm known to be skilled and regularly engaged in the business of preconstruction color audio-video documentation. The electrographer shall furnish to Engineer a list of names and addresses of two references that electrographer has performed color audio-video recording for projects of a similar nature.

PART 2 - PRODUCTS

2.01 AUDIO-VIDEO

Audio-video recording shall be electronically transmitted. No flash drive submittals shall be accepted. The Contractor shall submit the recording for review and approval.

2.02 EQUIPMENT

- A. Furnish all equipment, accessories, materials, and labor to perform this service. The total audio-video system shall reproduce bright, sharp, clear pictures with accurate colors and shall be free from distortion, tearing, rolls or any other form of imperfection. The audio portion of the recording shall reproduce the commentary of the camera operator with proper volume, clarity and be free from distortion and interruptions.

- B. The color video camera used in the recording system shall have a horizontal resolution of 300 lines at center, a luminance signal to noise ratio of 45 dB and a minimum illumination requirement of 25 foot-candles.

PART 3 - EXECUTION

3.01 SCHEDULING

No recording shall be done during precipitation, mist, or fog. Recording shall only be done when sufficient sunlight is present to properly illuminate the subjects of recording and to produce bright, sharp video recordings of those subjects.

3.02 RECORDED INFORMATION – AUDIO

Each recording shall begin with current date, project name and Owner and followed by general location, i.e., viewing side and direction of progress. Audio track shall consist of an original live recording. Recording shall contain the narrative commentary of electrographer, recorded simultaneously with his fixed elevation video record of the zone of influence of construction.

3.03 RECORDED INFORMATION - VIDEO

All video recordings must, by electronic means, display continuously and simultaneously generated with the actual taping transparent digital information to include the date and time of recording, and station numbers as shown on the Drawings. Date information shall contain the month, day, and year. Time information shall contain the hour, minutes, and seconds. Additional information shall be displayed periodically. Such information shall include but not be limited to project name, contract number, name of street or structure, direction of travel and view. This transparent information shall appear on the extreme upper left hand third of the screen.

3.04 AREA OF COVERAGE

- A. Recorded coverage shall include all surface features located within the zone of construction supported by appropriate audio coverage. Such coverage shall include special attention to existing driveways, sidewalks, curbs, pavements, structures, exposed piping, electrical and control devices, landscaping, culverts, fences, signs, and headwalls within the area covered.
- B. When a conventional wheeled vehicle is appropriate for use, distance from the camera lens to the ground shall not be less than twelve feet. Rate of speed in the general direction of travel of the vehicle used during recording shall not exceed 15 feet per minute. Panning, zoom-in and zoom-out rates shall be sufficiently controlled to maintain a clear view of the object. Tape coverage may be required in areas not accessible by vehicles. Such coverage shall be obtained by walking or special conveyance approved by the Engineer.

END OF SECTION

SECTION 01510

TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

Requirements for temporary utilities.

1.02 TEMPORARY SERVICES

- A. Each temporary service shall meet the requirements of the utility having authority over the temporary service. Provide metering and isolation to meet requirements of utility authority over temporary service.
- B. Obtain permission of utility having authority over temporary service prior to connecting temporary service.
- C. Remove temporary services after temporary services are no longer needed for construction operations, site security, field offices, or testing. Restore to pre-construction condition.

1.03 APPLICATION AND PAYMENT FOR TEMPORARY SERVICES

- A. Make applications and arrangements and pay all fees and charges for temporary electrical, potable water, non-potable water, sanitary and telephone services.
- B. Provide and pay for temporary generators, pumps, wiring, switches, piping, connections, meters, and appurtenances for temporary utilities.

1.04 ELECTRICITY, LIGHTING

- A. Provide temporary electrical service, or services, for the following:
 - 1. Power tools for construction operations.
 - 2. Construction lighting.
 - 3. Security lighting.
 - 4. Field offices and sheds.
 - 5. Testing specified in individual Sections.
- B. Provide construction lighting as required for the following:
 - 1. Prosecution of Work;
 - 2. Observation of Work by Engineer, Owner, and regulatory authorities;
 - 3. Access to facilities occupied by Owner within project site.

C. Wiring for Temporary Electrical Services

1. Properly install and maintain wiring for temporary lighting and power.
2. Provide separate circuits for temporary lighting and for temporary power.
3. Provide branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords.
4. Securely fasten wiring and electrical devices.
5. Temporary lighting and power facilities shall meet the requirements of OSHA Safety and Health Standards for Construction.

1.05 WATER

A. Provide temporary water services for the following:

1. Potable water or non-potable water for construction operations.
2. Potable water for consumption by Contractor's and subcontractors' personnel.

B. Piping for Temporary Water Services

1. Provide pipe, fittings, valves, and hydrants for temporary water service, or services.
2. Provide temporary pumps, storage tanks, and controls if available water volume, pressure, or volume and pressure are not sufficient for construction operations.
3. Extend branch piping with outlets located so that water is available by use of hoses.
4. Securely anchor and support temporary water piping.
5. Provide warning signs at each temporary non-potable water outlet.

1.06 SANITARY FACILITIES

- A. Provide sanitary facilities (fixed toilets or portable chemical toilets) for Contractor's and subcontractor personnel.
- B. Sanitary Facilities for Contractor's and Subcontractor Personnel shall meet the requirements of OSHA Safety and Health Standards for Construction.
- C. Seclude sanitary facilities from public observation as follows:
 1. Locate sanitary facilities so that sanitary facilities cannot be observed by public, or
 2. Provide screening around sanitary facilities so that public cannot observe sanitary facilities.
- D. Maintain sanitary facilities so that sanitary facilities are clean and dry at all times.
- E. Enforce use of sanitary facilities. Do not commit nuisances on the project site.

1.07 HEAT, VENTILATION, AND AIR CONDITIONING

- A. Provide temporary heat, ventilation, and air conditioning for the following:
 - 1. Construction operations.
 - 2. Protection, drying, and curing of materials and finishes.
 - 3. Field offices and sheds.
- B. Temporary heat and ventilation for construction operations shall meet the requirements of OSHA Safety and Health Standards for Construction.

1.08 TELEPHONE SERVICE

- A. Provide temporary, land line or cellular telephone service for the following:
 - 1. Communications regarding construction operations.
 - 2. Emergency services.
 - 3. Field offices.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION (not used)

END OF SECTION

SECTION 01541

FIELD ENGINEERING

PART 1 - GENERAL

1.01 SECTION INCLUDES

Surveying services required for proper layout of work and record information.

1.02 QUALITY CONTROL

A Land Surveyor: Registered in the State of Florida and acceptable to Engineer shall be used for layout of all process piping, layout of building footprints and all Record Drawing information. Refer to Section 01781 – Project Record Documents.

1.03 SUBMITTALS

- A. Submit name, address, and telephone number of Registered Land Surveyor to the Engineer before starting work.
- B. On request, submit documentation verifying accuracy of survey work for project boundary and vertical and horizontal control.
- C. Submit certificate signed by Surveyor with Project Record Documents certifying that elevations and locations of improvements are in conformance, or non-conformance, with Contract Documents.

1.04 PROJECT RECORD DOCUMENTS

- A. Maintain complete, accurate log of control and survey work as it progresses.
- B. Maintain one set of plans that all record drawing information is kept on. These plans shall show the record information within one week of installation of work or information being made available. Record Drawings will be available for review by the Engineer at any time during the normal work day.
- C. Submit Record Documents and Drawings as specified in the City of Marco Island Utilities Department Manual of Standards and Specifications.

PART 2 - PRODUCTS (not used)

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Engineer of any discrepancies discovered.

3.02 SURVEY REFERENCE POINTS

- A. Protect survey control points prior to starting site work; preserve permanent reference points during construction. Make no changes without prior written notice to Engineer.
- B. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons. Replace dislocated survey control points based on original survey control.

3.03 SURVEY REQUIREMENTS

- A. Engineer shall provide one bench mark for vertical control and horizontal control during construction. Contractor shall be responsible for laying out the work, shall protect and preserve the established bench mark and shall make no changes or relocations without prior approval of Owner. Contractor shall report to Engineer whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.
- B. Contractor shall establish line and levels, locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements, including pavements, stakes for grading, fill and topsoil placement, utility locations, slopes, and invert, or centerline, elevations. Submit cut sheets for gravity sewers to Engineer three days prior to construction.
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, and ground floor elevations.
 - 4. Piping locations, slopes, and invert, or centerline, elevations.
- C. Periodically verify layouts by same means.
- D. Contractor shall provide horizontal and vertical record locations of improvements as specified in Section 001781 – Project Record Documents and shall include the following:
 - 1. Corner coordinates of rectangular or square buildings, structures, and tanks.
 - 2. Center coordinates of circular buildings, structures, and tanks.

3. Building floor elevations.
 4. Floor elevations of structures and tanks as required to define floor slope.
 5. Top elevations of structures and tanks.
 6. Channel floor elevations at each change in slope.
 7. Channel top elevations.
 8. Manhole center coordinates for sanitary sewers, storm sewers, and electrical duct banks.
 9. Pipe coordinates at changes in direction.
 10. Coordinates of buried valves, tees and fittings.
 11. All underground piping invert or centerline elevations including at changes in slope. (Maximum of 50 feet on center.)
 12. All underground pipe invert or centerline elevations at tees and crosses.
 13. Pipe invert, or centerline, elevations at crossing with other pipe.
 14. Invert, or centerline, elevations and coordinates of existing pipe at crossing with underground pipe installed under this project.
 15. Invert elevations of manhole pipe inlets and outlets.
 16. Duct bank coordinates at changes in direction.
 17. Top and bottom elevations of duct banks at manholes and handholes.
 18. Other horizontal and vertical record data pertinent to completed Work.
- E. Ground surface record/information shall include the following:
1. Spot elevations should be shown at a minimum 100-foot rectangular grid, sufficient to show all the important topographic features.
 2. Drainage swales.
 3. All elevations shown on the construction drawings shall be confirmed or amended on the Project Record Drawings if finished elevations are different.

END OF SECTION

SECTION 01781

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 SECTION INCLUDES

Requirements for preparation, maintenance and submittal of project record documents. **The Contractor's attention is specifically directed to Part 3.02.B of this Section.**

1.02 SUBMITTALS

- A. General: as specified in Section 1330 - Submittals
- B. At Contract close out, deliver one copy of record documents to Engineer.

1.03 REQUIREMENTS

Contractor shall maintain at the site for the Owner one record copy of:

- A. Drawings
- B. Specifications
- C. Addenda
- D. Change orders and other modifications to the Contract
- E. Engineer's field orders or written instructions
- F. Approved shop drawings, working drawings and samples
- G. Field test records
- H. Construction photographs
- I. Detailed Progress Schedule

PART 2 – PRODUCTS (not used)

PART 3 – EXECUTION

3.01 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Project record documents shall be stored in Contractor's field office or other location approved by the OWNER apart from documents used for construction
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.

- C. Make documents and samples available at all times for inspection by the Engineer and/or Owner.

3.02 RECORDING

A. General

1. Label each document "PROJECT RECORD" in neat, large printed letters.
2. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
3. Record information in red ink.

B. Record Drawings

1. **Record information on Drawings shall be as specified in Section 01541 – Field Engineering. The Record Drawings require certification of all as-built information, including vertical and horizontal data, for above and below ground improvements by a Florida Registered Land Surveyor.**
2. Drawings shall indicate all deviations from Contract Drawings including:
 - a) Field changes of dimension and detail
 - b) Changes made by Change Order
 - c) Details, utilities, piping or structures not on original Contract Drawings.
 - d) Equipment and piping relocations.

C. Specifications and Addenda

Legibly mark each Section to record:

1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
2. Changes made by Field Order or Change Order.

D. Shop Drawings

1. Keep one copy of the final, approved shop drawing with the Record Documents. Do not keep previously rejected submittals unless they are necessary to complete the submittal.
2. Record documents should include all shop drawing information submitted. Additional information submitted during the Engineer's review process should be filed with the appropriate submittal.

END OF SECTION

ADDITIONAL ITEM NO. 1

FDEP WATER GENERAL PERMIT



FLORIDA DEPARTMENT OF Environmental Protection

South District
PO Box 2549
Fort Myers FL 33902-2549
SouthDistrict@FloridaDEP.gov

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

NOTICE OF ACCEPTANCE TO USE A GENERAL PERMIT

May 31, 2024

City of Marco Island
Jeffrey E. Poteet, General Manager
50 Bald Eagle Drive
Marco Island, FL 34145
jpoteet@cityofmarcoisland.com

Collier County
Project: North Marco Water Main Improvements
Permit No.: 366006-017-DSGP
Connected To: 5110183

Dear Jeffrey E. Poteet,

This letter acknowledges receipt of your Notice of Intent to Use a General Permit for Construction of Water Main Extensions for Public Water Systems, pursuant to Rule 62-555.405, Florida Administrative Code, received on May 6, 2024 (Notice).

The proposed project includes: 250 LF of 10-inch PVC watermain, 440 LF of 10-inch HDPE watermain, and 140 LF of 4-inch PVC watermain.

The Department does not object to your use of such a General Permit. The construction activities shall conform to the description contained in your Notice and any deviation may result in enforcement action. You have 5 years to perform the work described in your notice under this General Permit.

Please be advised that you are required to abide by the general requirements for general permits, as specified in [Rule 62-4.540](#), Florida Administrative Code, and the specific requirements of this general permit, as specified in [Rule 62-555.405](#), Florida Administrative Code. Additionally, you must abide by the applicable rules of [Chapters 62-4](#), [62-550](#), and [62-555](#), Florida Administrative Code.

Upon completion of construction of the project, and before placing the facilities into operation for any purpose other than disinfection, testing for leaks or testing equipment operation, you shall submit [Form 62-555.900\(9\)](#), Florida Administrative Code, to the Department using the contact information provided in the letterhead address. Additional information regarding the steps necessary to place the project into operation are attached for your convenience. **The system shall not be placed into service until the Department clears the project for use.**

Should you have any questions, please contact Brian Eastham at (239) 344-5616 or Brian.Eastham@FloridaDEP.gov.

City of Marco Island
May 31, 2024
Page 2 of 2

Sincerely,



Jessica Douglas
Environmental Manager

Attachment:

Specific Requirements for the Use of the General Permit for Domestic Wastewater
Collection/Transmission Systems

cc:

David W. Schmitt, P.E., dschmitt@bowman.com

CLEARANCE REQUIREMENTS

Requirements for clearance upon completion of projects are as follows:

1) Clearance Form

Submission of a fully completed Department of Environmental Protection (DEP) Form [62-555.900\(9\)](#), *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components into Operation* to SD_newapps@FloridaDEP.gov.

2) Record Drawings, if deviations were made

Submission of the portion of record drawings showing deviations from the DEP construction permit, including preliminary design report or drawings and specifications, if there are any deviations from said permit (Note that it is necessary to submit a copy of only the portion of record drawings showing deviations and not a complete set of record drawings.).

3) Bacteriological Results

Copies of satisfactory bacteriological analysis (a.k.a. Main Clearance), taken within sixty (60) days before submittal of the Completion of Construction Form 62-555.900(9), F.A.C., from locations within the distribution system or water main extension to be cleared, in accordance with Rules [62-555.315\(6\)](#), [62-555.340](#), and [62-555.330](#), F.A.C. and American Water Works Association (AWWA) Standard C 651-92, as follows:

- Connection to an existing system
- The end point of the proposed addition
- Any water lines branching off a main extension
- Every 1,200 feet on straight runs of pipe
- Each location shall be sampled on two days, with sample points and chlorine residual readings clearly indicated on the report.
- A sketch or description of all bacteriological sampling locations must be provided.

4) Pressure Test Results

Copy of satisfactory pressure test results demonstrating compliance with AWWA Standard requirements.

If the project is placed into operation before obtaining clearance from the South District Office, the permittee may be subject to enforcement actions and possible penalties.

Please contact the Department of Environmental Protection, South District Office at (239) 344-5600 or by e-mail at SouthDistrict@FloridaDEP.gov for more information.

ADDITIONAL ITEM NO. 2

SUMMARY OF UTILITY TRENCH TESTING REQUIREMENTS

Following is a Summary of Utility Trench Test requirements found in the City of Marco Island Construction Standards Handbook for Work Within the Public Right of Way (latest edition) and the City of Marco Island Water & Sewer Department Manual of Standards and Specifications (latest edition).

ITEM	TEST FREQUENCY	TEST REQUIREMENT
1. Utility Trench		
a. FDOT 57 Stone, Bottom to Spring Line	None Required	None Required
b. Select Backfill, Spring Line to 8" Above Pipe	None Required	None Required (Compact Thoroughly)
c. Trench Backfill, 12" Lift	One Each Road Crossing Per Lift, One Every 400 LF Longitudinal	98% Modified Proctor
d. Lime Rock Base, 12" Lift	One Each 5 Driveway Crossing, See Roadway Requirement in Pavement Area	98% Modified Proctor

ADDITIONAL ITEM NO. 3

CITY OF MARCO ISLAND ASBESTOS WORK PLAN SPECIFICATION

Following is a copy of the City of Marco Island Asbestos Work Plan Specification. The Contractor shall coordinate all work with asbestos pipe and materials with the City. Neither Bowman or their representatives shall take responsibility for the work associated with the removal or modification of the City's asbestos pipe or materials.

ASBESTOS WORK PLAN

REPAIR, REMOVAL AND MAINTENANCE OF ASBESTOS-CONTAINING CEMENTITIOUS PIPES

(April 20, 2010)

ASBESTOS WORK PLAN

The following work plan is for the repair, removal, and maintenance of asbestos cement pipe (AC). This work plan should be considered as minimal guidelines for the disturbance of the material. The Contractor shall utilize all appropriate controls and work practices necessary to protect workers, people in the vicinity of the work area, and the environment, regardless of the inclusion or exclusion of this work plan. Contractor questions should be resolved prior to the start of the abatement project. The primary concerns and considerations of these work practices is the protection of human health and the environment, as well as to minimize the Owner's and Contractor's liability exposure before, during and after the abatement process.

GENERAL

The City of Marco Island shall employ the Contractor for the purpose of repair, removal, and maintenance of AC pipe.

INDEMNITY The Contractor shall indemnify, defend and save the Owner harmless from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the work associated with the project. The Contractor shall defend on behalf of the Owner, severally, or Owner and Contractor jointly, any claim or action for or arising out of the foregoing. The monetary limitation on the extent of indemnification pursuant to this paragraph shall be \$1 million per occurrence.

The Contractor shall indemnify, defend, and save the Owner harmless against all damages, losses, and claims resulting from the activities, or lack of activities associated with the project. The Contractor shall defend on behalf of the Owner, severally, or Owner and Contractor jointly, any claim or action for or arising out of the foregoing.

REGULATIONS, CODES AND STANDARDS

The Contractor shall comply with all regulations, codes, and standards. These shall include, but are not limited to:

- 1 Title 29, Code of Federal Regulations, Section 1910.134 and 1926.1101. Occupational Safety and Health Administration (OSHA), US Department of Labor.
- 2 Title 40, Code of Federal Regulations, Part 61, Subparts A and M, National Emission Standards for Hazardous Air Pollutants. US Environmental Protection Agency (EPA).
- 3 State of Florida's Administrative Code 62-204.800. US EPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61, Subpart M).
- 4 State of Florida, Chapter 62-257, Florida Administrative Code.
- 5 Florida Statutes, Chapter 469, Licensing Requirements (Exemptions 469.002)
- 6 State of Florida, City of Marco Island codes and ordinances as applicable.

CONTRACTOR STAFFING

1. All work will be supervised by a qualified individual meeting the requirements of a Competent Person* and possessing the following minimum qualifications and training:

- a) Satisfactory completion of an Asbestos Abatement Project Supervisor course
 - Medical examination for respirator use
 - Fit test for respirator type
- b) Training in the maintenance, repair, and removal of AC pipe

*A Competent Person, is capable of identifying existing asbestos hazards at the workplace, determine if a Negative Exposure Assessment (NEA) exists, is qualified to train other workers, and has the authority to take prompt corrective measures to eliminate a hazardous exposure. In addition, the competent person must be trained in a training course which meets the criteria of EPA's Model Accreditation (40 CFR 763) for supervisor.

2. Any direct contact with AC pipe will be performed by qualified workers possessing the following minimum qualifications and training:

- a) Satisfactory completion of an OSHA Class II Worker course**
 - Medical examination for respirator use
 - Fit test for respirator type
- b) Training in the maintenance, repair, and removal of AC pipe

**Class II Training Requirements must be met for work involving building materials including roofing, flooring, siding materials, ceiling tiles or transite panels training shall include at a minimum the elements in paragraph 29 CFR 1926.11.1 (k) (9)(iv)(A) and specific work practices and engineering controls set forth in paragraph (g). It shall include hands-on training, and it is to be at least 8 hours in length. Annual refresher course work is required. The length of time for the refresher training is not specified.

3. Personal Protective Equipment (PPE) for each worker will include hard hat, steel toed shoes, disposable protective clothing, respiratory protection, and high visibility reflective vests. Respirators shall be fitted with a P-100 filtering cassette. (The use of disposable protective clothing, and respiratory protection will be determined by the establishment of a Negative Exposure Assessment and continual personnel air monitoring).

1 WORK PROCEDURES

Controlling Government Regulation:

OSHA's Construction Industry Standard for Occupational Exposure to Asbestos Subpart Z, 29 CFR 1926.1101 Asbestos.

Work-Task Assumptions/Requirements of the Employer at Project Worksite:

Prior to commencing the demolition and removal of the AC pipe, the Contractor has:

- (1) Determined by thorough inspection the existence and the extent of any ACM.
- (2) Given written notice to appropriate governmental agency at the beginning of abatement activity.
- (3) Conducted an Initial Exposure Assessment (IEA) test plan or baseline report, which complies with the criteria in Paragraph (f)(2)(iii) of the above referenced controlling government regulations (section), and which demonstrates that the employees' exposure to airborne asbestos fibers during removal of the Asbestos Cement (AC) pipe is expected to be consistently below the Permissible Exposure Levels (PELs) i.e. exposure must be less than 0.1 fiber/cubic centimeter (cc) of air for an eight (8) hour time-weighted average limit (TWA), and less than 1.0 fiber/cc of air as averaged over

a sampling period of thirty (30) minutes, all as determined by the method prescribed in Appendix A to the referenced section, or by an equivalent method, and therefore, the employer intends to do the AC pipe removal through the use of Negative Exposure Assessments (NEAs). Procedures for Removal of Asbestos Cements (AC) Pipe, Also Commonly Referred to as Transite Pipe. This work activity is identified as a Class II asbestos removal activity by OSHA's Subpart Z, 29 CFR 1926.1101, with the AC Pipe removal is being done utilizing a valid Negative Exposure Assessment (NEA).

Preparation

Establish a regulated work area (RWA) using barricade tape.

- Provide a hand/face wash station at the entry point to the RWA.
- Post asbestos warning signs at the RWA entry point.
- Establish a waste load-out area attached to the RWA.
- Once an RWA is established and work begins, no access should be permitted without the required personal protective equipment.
- Prior to commencing work at ten-day NESHAP notification (DEP Form 62-257.900(1) Effective 10-12-08) must be submitted to the Florida Department of Environmental Protection (FDEP) office located at the following address:

FDEP Air Resource Management
2295 Victoria Avenue, Suite 364
PO Box 2549
Fort Myers Florida 33902-2549

The form can be accessed online at:

[http://www.dep.state.fl.us/air/rules/forms/asbestos/dep62_257_900\(1\).pdf](http://www.dep.state.fl.us/air/rules/forms/asbestos/dep62_257_900(1).pdf) Air Monitoring and

Sampling of Exposure to Airborne Asbestos Fibers:

- As the work begins the competent person (or third-party consultant) must conduct and record objective data to confirm the Initial Exposure Assessment (IEA), and that the specific job site work activity confirms the findings of the IEA, and that the PELs are not being exceeded for this work activity.

Excavation

- Machine excavate to expose AC pipe.
- Hand excavate areas under pipe where cuts/breaks are planned.
- Excavation operations should be carefully executed so that pipe damage does not occur prior to removal.

Abandonment of AC Pipes

- AC pipes can be abandoned in place. The procedure for abandonment of pipes in place includes filling the section of pipe with a grout/cement slurry. The location of the pipes should be recorded on the master drawing of the right of way.
- At no time will bursting, crushing, grinding, or pulverizing of the AC pipe be conducted.

AC Pipe Removal

All pipe cutting or breaking operations require adequate wetting with potable water to prevent AC materials from being crumbled by hand pressure and to keep the asbestos fibers from becoming airborne (friable).

- Plan pipe cuts/breaks as necessary to accommodate the size/weight of pipe being removed.
- Use a hammer or wheel-type pipe cutter (or equivalent tool) to make the initial cut and drain the pipe of residual liquids. If gas powered cutters are to be used, they should be connected to a HEPA filtered vacuum and used in a manner that will not create elevated airborne fibers. In addition, a sufficient supply of water shall be applied to the cut point to further prohibit the release of asbestos fibers. A layer of 6 mil polyethylene should be placed beneath the cut point to contain the debris that will be generated. The debris shall be collected and treated as asbestos containing waste.
- Remove pipe sections at joint collars by breaking them with a sledgehammer or cutting them with a wheel-type pipe cutter (soil pipe cutter).
- Where pipe re-connection is required, trim pipe ends in a manner that will not cause asbestos fibers to become airborne. Any debris that is generated shall be collected and treated as asbestos containing waste.
- When applicable, remove pipe sections from trench in an "intact" condition. Wet and containerize waste materials as you go. Using lifting straps and methods that do not damage the pipe remove the material from the trench.
- Waste Pipes: The pipe should be placed in a leak tight waste container. An alternative option would be to wrap each section of pie with two layers of 6 mil polyethylene. For both options water should be applied to each section of pipe before it is contained.
- Identify AC materials and stockpile the waste in a designated load-out area with the following label warnings: (The label must also identify the generator of the AC pipe waste).

DANGER Contains Asbestos Fibers
 Avoid Creating Dust
 Cancer and Lung Disease Hazard

Transportation of Asbestos Waste

All asbestos containing waste shall be transported to a Class I landfill in leak tight containers. Each shipment must be properly marked with the following notation:

DANGER Contains Asbestos Fibers Avoid Creating Dust Cancer and Lung Disease Hazard

- All asbestos containing waste shall be disposed of in a timely manner at a Class I landfill. All waste must be disposed of within a 30-day period from the time of removal. A waste shipment record must be provided for each shipment.

References: Underground Contractors Association of Illinois Best Practices for Removing Asbestos Cement Pipe April 14, 2003