



# CONSTRUCTION SPECIFICATIONS

## FOR

### BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND COUNTRY CLUB OF NAPLES

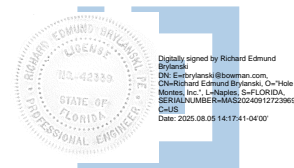
### SECONDARY DRAINAGE SYSTEM IMPROVEMENTS AND WATER MAIN REPLACEMENT

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(Updated August 2025)

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Prepared For:

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BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND  
COUNTRY CLUB OF NAPLES  
SECONDARY DRAINAGE SYSTEM IMPROVEMENTS  
AND  
WATER MAIN REPLACEMENT  
CONSTRUCTION SPECIFICATIONS

The following Construction Specifications have been provided for the above referenced project. These project specifications are intended to supplement the Collier County Construction Standards Handbook for Work Within the Public Right of Way and FDOT Road Design and Construction Standards (2025-2026). These documents can be obtained from the Collier County and FDOT websites. In addition, the City of Naples Utility Specifications & Standards Manual shall apply for the water main replacement and any other work on their facilities.

BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND  
COUNTRY CLUB OF NAPLES  
SECONDARY DRAINAGE SYSTEM IMPROVEMENTS  
AND  
WATER MAIN REPLACEMENT

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## 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, Collier County Construction Standards Handbook for Work Within the Public Right of Way and FDOT Road Design and Construction (latest revision) and City of Naples Utility Specifications and Standards Manual and the Construction Specifications.

##### 1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Work for this Contract shall include, but not be limited to, the following items.

###### 1. Secondary Drainage System Improvements

- Removal and replacement of existing driveways, driveway culverts, and end treatments.
- Construction of new roadside swales and ditches with restoration.
- Construction of new cross drains at existing roadways.
- Construction of new outfall piping.
- Construction of new roadway asphalt overlay.

###### 2. Water Main Replacement

- Construction of a new replacement water main including new valves, fire hydrants, new water services, new meter boxes, and reinstallation of existing meters.
- Upon water main conversion, the existing system shall be abandoned. Water main shall be grouted in place and, where necessary due to new construction, shall be removed and properly disposed of. Existing valves shall be disabled. Existing above or at grade facilities shall be removed.
- Relocation of existing sewer lateral with connection to existing system.

B. The Contract Amount shall be determined utilizing the Bid Form as provided. All materials, labor and equipment shall be provided by the Contractor. The County will not provide any materials.

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 Special Project Requirements as noted on Contract Drawings.
- E. The work also includes Maintenance of Traffic throughout the project. The Contractor shall develop a phased plan of construction to maintain access for residents. This plan shall be submitted for review and approval by the County prior to construction.
- F. The Contractor shall be responsible for the implementation, maintenance and inspection of stormwater pollution prevention control measures in accordance with FAC Chapter 62-621. The Contractor shall prepare and review implementation of the Stormwater Pollution Prevention Plan (SWPPP) with the County prior to the start of construction.
- G. The Contractor shall prepare and provide a Storm/Inclement Weather Contingency Plan for the project. This plan shall be submitted for review prior to the commencement of any construction activities.
- H. The Contractor shall prepare and provide a site-specific Safety Plan for the project. This plan shall be submitted for review prior to the commencement of any construction activities.
- I. The Contractor shall consider location and surrounding area when locating equipment to minimize noise and visual impacts to residents. All site work shall be approved by the County Project Manager as necessary. Contractor shall be responsible for complying with the County Noise Ordinance and installation of noise abatement measures as needed on all equipment.

#### 1.03 SITE ACCESS AND STORAGE

- A. Site access shall be from Goodlette Road and Solana and other local roadways. Site access shall be maintained throughout construction for residents, deliveries, and emergency vehicles. Access for outfall pipes shall be through existing side yard easements at identified locations on the plans. This access shall be marked and fenced off by the Contractor. Care shall be taken by the Contractor to minimize disturbance to the adjacent property owners and residents.
- B. Site material and equipment storage shall be limited to the existing right of way. The Contractor shall coordinate delivery of materials to the site to minimize onsite storage. Onsite storage shall be limited to one week. Materials and equipment storage shall not obstruct roadway and driveway access or visibility. Contractor shall be responsible for restoring the right of way to its previous condition or better upon completion of work.
- C. The Contractor may utilize additional material and equipment storage areas onsite or offsite. Those storage areas on properties not owned or controlled by the Contractor shall be through a legal agreement with a copy of the agreement provided to the County. All offsite storage shall be in conformance with local zoning and development

requirements. The Contractor shall be responsible for all conditions and restoration that may be required as part of the agreement.

- D. The Contractor shall be responsible for securing all materials and be responsible for any damage or theft of any materials until final project acceptance.

#### 1.04 WORK BY OTHERS

During the construction period for this project, the Owner (either with his own forces or under a separate contract) will 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.

#### 1.05 PROJECT PHASING

- A. Water Main shall be constructed in phases as identified on the plans. The contractor, at their option, may submit an alternate phasing plan for consideration by the City and County.
- B. There is no identified phasing plan established for the secondary stormwater improvements. The contractor shall develop a phasing plan for review by the County and City to minimize disruption to residents and maintain traffic during construction.

#### 1.06 PROJECT SCHEDULE

Time is of the essence for this project and disruption to homeowners must be kept minimal. The County and City have a right to request a detailed plan from the contractor if the contractor is not anticipated to finish the project within the contract time. The project will commence upon notice to proceed (NTP) from the Owner and be in effect until completion of the project as follows. Substantial Completion shall be made within 270 calendar days of the Notice to Proceed and Final Completion within 300 calendar days.

#### 1.07 PROJECT INQUIRIES

- A. All inquiries from property owners and residents related to the project including scope of work, site access, equipment, etc. shall be directed to the County Project Manager.
- B. All Requests for Additional Information (RFIs) shall be submitted in a timely manner to the County Project Manager and Engineer. RFIs shall be submitted on a standard form with sketches and photographs of the item requiring additional information.

**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 reflect the bid proposal form contained in the construction contract.
- B. The schedule shall be given in sufficient detail for proper identification of the percentage 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. The Contractor's applications for payment shall be submitted in accordance with the contract and all Collier County requirements.

#### 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 for each item includes compensation for cleanup and restorations. The 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.
- B. Incidental items to construction shall include, but not be limited to, the following items. No separate payment shall be made for these items and shall be included in the Bid Price of the Payment Item to which it is associated.
  - 1. Trench excavation, sheeting, shoring, and bracing.
  - 2. Dewatering and associated water quality testing as stipulated in permits.
  - 3. Best management practices and controls required to meet dewatering discharge water quality standards.
  - 4. Erosion and sedimentation controls and turbidity screening.
  - 5. Excavation, fill, backfill, pipe bedding (including 57 stone), compaction, and grading including furnishing and installing imported material as required.
  - 6. Excavation of all material encountered including rock, organic, inorganic, and unsuitable material and all material transportation and disposal.
  - 7. Right of way (ROW), site, and all disturbed area restoration including grading, sod, mulch, plantings, trees, landscape, etc. Sod type shall be determined by the type of sod that constitutes 50% or more of the property to be restored.
  - 8. Final and temporary restoration.
  - 9. Removal and temporary replacement of driveways and roadways disturbed during construction to maintain stable condition until permanent restoration is completed.
  - 10. Tree trimming (within the ROW and outside the ROW) and removal (within the ROW).
  - 11. Removal, repair, and replacement of existing irrigation located within the ROW.
  - 12. Maintaining irrigation systems operable during construction.
  - 13. Removal and disposal of existing stormwater pipes, culverts, mitered ends, headwalls, and associated structures.
  - 14. Removal and replacement of existing bollards (wooden, metal, or concrete).
  - 15. Cleanup and site dust control including daily sweeping and watering as needed to maintain a clean work area and daily collecting and disposal of all trash and debris within the project site.
  - 16. Testing includes all materials, fees, certifications, and equipment.
  - 17. Maintenance of utility service.
  - 18. Manhole cover/frame adjustment.
  - 19. Water main box adjustment.



20. Bump mill of existing pavements.
21. Appurtenant work.
22. Removal of fencing and other structures within the ROW and easements.
23. Saw cutting.
24. Coordination with other contractors for work within the ROW and/or private property.
25. All transportation, storage, and labor.
26. Notifications to property owners of construction schedule and service interruptions.
27. Contractor Project Manager or Supervisor onsite during any construction activity.

C. Description of special non-FDOT items

1. Pre and Post Construction Video: Measurement and Payment shall be by Lump Sum for the project. The Preconstruction Video shall be taken in Phases. Payment will be pro-rated during construction. Video shall be completed in accordance with the Contract requirements with electronic copies provided. The Preconstruction Videos shall be supplemented with still photographs as needed. The Post Construction Video shall be taken when all work within a project location is completed. In conjunction with the video, the Contractor shall complete the Preconstruction Assessment form for all driveway, side yard, and rear yard easements and for any storage/staging areas in which work is to be performed.
2. Project Sign: Measurement and Payment shall be by each for the project. Work shall include all labor, material, and equipment to provide, install and maintain the Project Sign(s) at the site. Upon completion of the Work, the sign(s) shall be removed and disposed of properly.
3. Record Survey: Measurement and Payment shall be by Lump Sum for the project. The survey is to be completed in phases. Payment will be pro-rated during construction. Record Survey shall be completed in accordance with the Contract requirements. Record Survey shall be submitted within 15 days of completion of work at each location and completion of each phase of the perimeter ditch work.
4. Swale Regrading (Including Cut & Fill): Measurement and Payment shall be per square yard for regrading of the existing swales. This shall include all labor, material, and equipment to regrade the existing swales including excavation, filling, and fine grading for sodding.
5. Golf Course Interconnect, Site Work (Sheet 13): Measurement and Payment shall be by Lump Sum for the site work for the golf course interconnect piping shown on Sheet 13. It shall include all labor, material, and equipment necessary to conduct the pre and post pool integrity testing, pre and post topographic survey, remove and turn over all pool equipment to the Owner, cap existing pool piping at the easement, remove vegetation and walkways, remove existing drainage and upon completion re-sod the disturbed area. This work shall be scheduled by the County Project Manager and Engineer in advance.

6. Golf Course Interconnect, Site Work (Sheet 13A): Measurement and Payment shall be by Lump Sum for the site work for the golf course interconnect piping shown on Sheet 13A. It shall include all labor, material, and equipment necessary to conduct the pre and post pool integrity testing, pre and post topographic survey, remove and turn over all pool equipment to the Owner, cap existing pool piping at the easement, remove vegetation and walkways, remove existing drainage and upon completion re-sod the disturbed area. This work shall be scheduled by the County Project Manager and Engineer in advance
7. Paver Driveway Remove/Replace: Measurement and Payment shall be per square yard for the removal and reinstallation of existing paver driveways removed by construction. It shall include, but not be limited to, removal, staking and protection of existing pavers, all temporary surfacing to maintain access, excavation and grading, installation of paver driveway, and miscellaneous surface restoration.
8. 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 and install water main and temporary bacteriological sample valves, miscellaneous fittings, markers, backfill, compaction, provide testing, flushing, connections and provide surface restoration for a complete installation.
9. 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.
10. 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.
11. 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 may be required.
12. 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.

13. Water Main Connection: Measurement and Payment shall be per each as required. Work shall include all labor, material, and equipment as necessary to coordinate any required water main shutdown, excavate, complete the final water main connection with all fittings, repair sleeves, reducers, thrust blocks, backfill, compact and final surface restoration.
14. Water Service - Long: Measurement and Payment shall be per each long 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.
15. Water Service - Short: Measurement and Payment shall be per each short water service. Work shall include all labor, material, and equipment necessary for utility coordination, installation of new water service with conduit to the right of way line, connection to new water main and boxes, coordination for service transfer, backfilling, compacting and surface restoration.
16. Water Meter Boxes: Measurement and Payment shall be per each water meter box. Existing water main boxes shall be replaced. Work shall include all labor, material, and equipment necessary for installation of the new water meter boxes and ready for utility installation of new or relocated water meters. The Contractor shall coordinate work with the City for meter installation.
17. Air Release Valve (ARV) Assembly: Measurement and Payment shall be per each air release valve assembly. Work shall include all labor, material, and equipment necessary for installation of the ARV on the water main.
18. 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 fittings, pipe and pipe restraints, backfilling, compacting and surface restoration for those locations where deflection exceeds 6" in height.
19. Water Main Pipe Removal: Measurement and Payment shall be per lineal foot of pipe removal 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.
20. 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.

21. 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 removal of valves, valve pads, blow offs, existing meter boxes, fire hydrants and other miscellaneous items.
22. Relocate Existing Sewer Lateral: Measurement and Payment shall be lump sum for the relocation of the existing sewer lateral as required for the storm sewer construction. It shall include all labor, material, and equipment to core the existing manhole for a new lateral to the effected property and connection at the existing service location with cleanouts as shown. It shall include abandonment in place of the existing lateral by grouting or removal as needed.
23. Existing Sewer Service Adjustment: Measurement and Payment shall be per each sewer lateral adjustment due to conflicts with the proposed water main or storm sewer construction. It shall include, but not be limited to, all excavation, backfilling, compaction, temporary surfacing, removal of the existing sewer lateral from the main, and extension of the lateral to the existing service location at the property line, new cleanout assembly, and connection to the existing service from the house. One single cleanout assembly and 35 lineal feet of 6" lateral shall be included. Additional cleanout and lateral will be compensated under their individual unit prices as needed.
24. Additional Sewer Cleanout Assembly: Measurement and Payment shall be per each additional sewer cleanout assembly installed in conjunction with the sewer service adjustment. (This is for double sewer service locations.) It shall include, but not be limited to, removal and replacement of the existing cleanout, excavation, backfilling, compacting, and temporary surface restoration for the complete installation.
25. Additional Sewer Lateral Piping: Measurement and Payment shall be per each additional lineal foot of 6" lateral installed beyond 35 lineal foot included in the Existing Sanitary Sewer Service Adjustment Unit Price. It shall include, but not be limited to all excavation, piping, backfilling, compaction, and temporary surface restoration as needed.
26. Owner Directed Contingency: Measurement and Payment shall be made at the appropriate contract price based on unit price or on a time and material basis depending upon the nature of the work. The Contractor shall submit pricing including labor, material, and equipment for review prior to work. A Work Directive with a Change Order with the associated backup material shall be issued by the Collier County Project Manager prior to the work being completed by the Contractor. This shall be for unanticipated work due to unforeseen conditions and other items.

#### END OF SECTION

## SECTION 01135

### OWNER DIRECTED CONTINGENCY FUND

#### PART 1 – GENERAL

##### 1.01 SECTION INCLUDES

##### 1.02 CONTRACT CONTINGENCY

- A. County Staff has allocated a total of 10% in Owner's Allowance for Owner's Use as Directed. This Allowance will be used only at the Owner's direction to accomplish work due to unforeseen conditions and/or as directed by the Owner. Inclusion of the Allowance as part of the Contract Price is not a guarantee that the Contractor will be paid any portion or the full amount of the Allowance. Expenditures of Owner's Allowance will be made through Change Order with proper documentation of Time and Materials supporting the change.
- 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. Compensation for unforeseen conditions will be made at the appropriate contract price based on unit price or time and materials depending upon the nature of the work. Prior to work commencing, the Contractor shall submit their standard labor, material, and equipment rates for County review. Upon review and acceptance, these standard labor, material, and equipment rates shall serve as the basis of compensation for emergency or time and material allowance work.
- C. A Contingency for Unforeseen Conditions has been included. This shall be for unanticipated work only due to unforeseen conditions and other items.
- D. 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 amounts.
- B. A Contingency for Owner's use as directed for unforeseen work and costs associated with existing underground piping and obstructions and other items.

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 structures 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 notify the County Project Manager and Engineer.
- C. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.
- D. The Contractor shall prepare and submit monthly log of all exploratory work conducted on existing utilities including water, wastewater mains and services, and private utilities. Failure to submit monthly may result in rejection of application for payment.
- E. The Contractor shall have a licensed pool contractor perform one pool leak test at preconstruction and one post-construction, to verify the pool and associated equipment condition, thereby verifying and protecting the interests of all parties. The preconstruction test report shall be submitted to and approved by the Engineer and County Project Manager prior to commencement of construction activities. The post-construction test report shall be submitted to and approved by the Engineer and County Project Manager prior to the substantial completion. (See Plan Sheets 13 and 13A)
- F. The Contractor shall have a licensed surveyor conduct a preconstruction and post construction topographic survey thereby verifying and protecting the interest of both parties. The preconstruction survey shall be submitted to and approved by the Engineer and County Project Manager prior to commencement of construction activities. The post

construction survey shall be submitted to and approved by the Engineer and County Project Manager prior to substantial completion. (See Plan Sheets 13 and 13A)

#### 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 County Project Manager and 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 a 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 on 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 on 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 made 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 County Project Manager and

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 County Project Manager and Engineer.



- 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.

#### 1.09 VIBRATION MONITORING

- A. The Contractor is responsible for providing a third-party independent consultant to perform vibration monitoring adjacent to existing homes and structures during all construction activities. The Contractor shall submit for review and approval the name and qualifications of the consultant. The monitoring equipment shall be located within the equipment manufacturer's allowable tolerance distance from construction activities at all times. All monitoring shall be done at the limits of the right of way or easement as applicable. Reports shall include location of the equipment, time, and maximum PPV, either once per day if the vibration monitor is not relocated or upon each relocation of the vibration monitoring device. Upon either detecting vibration levels reaching 0.5 inches per second or damage to the structure, immediately stop the source of vibrations, backfill any open excavations, notify the County Project Manager and Engineer and provide a corrective action plan for acceptance by the County Project Manager and Engineer. Vibration monitoring and reporting shall follow the US Bureau of Mines standards and reports shall be signed and sealed by a State of Florida Professional Engineer and delivered weekly to the County, EOR, and CEI. The Contractor's qualified subcontractor shall be the only party allowed to determine the proper location for monitoring and setting up the vibration monitoring equipment. Vibration monitoring reports, signed and sealed, shall include a statement whether the recorded levels met or did not meet 0.5 inches per second and recommended levels stated in the US Bureau of Mines, R18507 Structural Response and Damage Produced by Ground Vibration from Blasting. If at any time a structural damage complaint is received by the County, the Contractor shall, within two (2) business days, provide a signed and sealed vibration monitoring report for the affected area. On a monthly basis, the Contractor shall submit signed and sealed vibration monitoring reports.

**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 County Representative shall prepare and distribute the meeting agenda and shall preside at the meeting. The County Representative shall record and distribute minutes of the proceedings and decisions.
- B. Attendance:
  - 1. County Project Manager
  - 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 or phasing
  - 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 County Representative will prepare and distribute agenda, preside at meetings and record minutes of proceedings and decisions. The County Representative will distribute copies of minutes to participants.
- C. Attendance:
  1. County Project Manager
  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 to the County Project Manager and Engineer, 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 of all trades.
- C. Sign each sheet of shop drawings and product data, and each sample; label to certify compliance with requirements of Contract Documents. Notify County Project Manager and 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 one piece of material or equipment. All submittals with color documentation shall be submitted in color.

- H. items and as required by the Contract Documents:

- 1. Pipe
- 2. Structures
- 3. Utility Adjustment Materials
- 4. Soil Stabilization Materials
- 5. Concrete, Concrete Reinforcing, and Grout
- 6. Backfill and Flowable Fill Materials
- 7. Asphalt Mix Design
- 8. Asphalt Cores
- 9. Compaction Results (Soil and Base Material)
- 10. Maintenance of Traffic Plan (Phased)
- 11. Water Main Replacement Phasing & Plan
- 12. Water Main Pipe
- 13. Water Main Fittings, Valves, and Hydrant
- 14. Water Service Materials
- 15. Bacteriological & Pressure Test Results - Water
- 16. Stormwater Pollution Prevention Plan (SWPPP)
- 17. Storm/Inclement Weather Contingency Plan
- 18. Site Specific Safety Plan
- 19. Project Schedule and Monthly Updates

20. Two-Week Look Ahead (Submit Bi-Weekly)
21. Weekly Vibration Monitoring Test Reports
22. Preconstruction and Post Construction Videos
23. Preconstruction Assessment Reports
24. Monthly Red Lines of Installed Facilities
25. Record Survey
26. Pool Integrity Tests

#### 1.05 NUMBER OF COPIES

A. In the event of non-digital submittal, hard copy should be submitted. Provide the number of copies listed below.

Submittal	Number of Copies	
	To Engineer	Returned to Contractor
Progress Schedules	4 copies	1 copy
Shop Drawings & Product Data	5 copies	1 copy
Samples & Test Reports	3 copies	1 copy
O&M Data	3 copies	---
Certificates of Compliance	3 copies	---
Request for Substitution	2 copies	1 copy
Requests for authorization, requests for information, and other similar requests	2 copies	1 copy

B. Additional Copies: If additional copies of shop drawings, product data, or shop drawings and product data are required by the Contractor, submit up to two additional copies to Engineer.

#### 1.06 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.

#### 1.07 PROGRESS SCHEDULES

Submit progress schedules in accordance with Contract documents

#### 1.08 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.

#### 1.09 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.

#### 1.10 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.
- D. Accepted samples shall establish the standards by which the completed Work will be judged.

#### 1.11 TEST REPORTS

Submit test reports as specified in this section and Section 01430 – Materials Testing to the County Project Manager and Engineer.



#### 1.12 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 County Project Manager and Engineer.

#### 1.13 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.

#### 1.14 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 County, State and Federal permits not obtained by County, including but not limited to building permits, fence permits, South Florida Water Management District dewatering permits, burning permits, tree removal permits, excavation permits, demolition permits and Florida Dept. of Environmental Protection NPDES Stormwater Pollution Prevention Plan permit.
- B. The Contractor shall apply for and obtain all necessary lane closure permits from the Collier County Growth Management Department. Copies shall be provided to the County Project Manager and Engineer. No lane closures will be permitted between the hours of 7:00 AM through 9:00 AM and 3:30 PM through 6:30 PM on weekdays.
- C. The Contractor must file a minimum of 48 hours prior to start of construction a Notice of Intent with the DEP.
- D. Contractor shall schedule and document all inspections and re-inspections (if needed) required by permitting agencies.
- E. County will obtain the County utilities and engineering approvals.
- F. Documents:
  - 1. County will furnish signed and sealed sets of Contract Documents for permit applications.
  - 2. County will furnish copies of permits obtained by County 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 County prior to commencement of work requiring permits.
- G. A Collier County Right of Way permit is not required for this work. The Contractor shall complete all work in conformance with the Collier County Construction Standards

Handbook for Work Within the Public Right of Way and Collier County Standard Detail Drawings.

### 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.
  9. Florida Department of Transportation Standards and Specifications.
  10. Collier County Right of Way Ordinance.
  11. City of Naples Utilities Standards.
- 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 014127

### NPDES REQUIREMENTS

#### FOR CONSTRUCTION ACTIVITIES IMPACTING MORE THAN ONE ACRE

#### PART 1 - GENERAL

##### 1.01 DESCRIPTION

- A. This Section describes the required documentation to be prepared and signed by the Contractor before conducting construction operations, in accordance with the terms and conditions of the National Pollutant Discharge Elimination Systems (NPDES) Stormwater Permit, as required by Florida Administrative Code (F.A.C.) Chapter 62-621.
- B. The Contractor shall be responsible for implementation, maintenance and inspection of stormwater pollution prevention control measures in accordance with F.A.C. Chapter 62-621 including, but not limited to, erosion and sediment control, stormwater management plans, waste collection and disposal, offsite vehicle tracking, and other practices shown on the drawings and/or specified elsewhere in this or other specifications. The stormwater pollution prevention control measures shall include protection of offsite public and private storm sewer facilities potentially impacted during construction. Stormwater facilities include streets, inlets, pipes, ditches, swales, canals, culverts, control structures, and detention/retention areas.
- C. The Contractor shall prepare and review implementation of the Stormwater Pollution Prevention Plan (SWPPP) in a meeting with the County Project Manager and Engineer prior to start of construction.

##### 1.02 UNIT PRICES

- A. Unless indicated in the Unit Price Schedule as a pay item, no separate payment will be made for work performed under this Section. Include cost of work to be performed under this Section in pay items of which this work is a component.

##### 1.03 REFERENCE DOCUMENTS

- A. ASTM D3786 – Standard Test Method for Hydraulic Bursting Strength for Knitted Goods and Nonwoven Fabrics.
- B. ASTM D4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

#### PART 2 - PRODUCTS (not used)

## PART 3 - EXECUTION

### 3.01 NOTICE OF INTENT (NOI)

- A. Fill out, sign and date a Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, (FDEP Form 62-621.300(4)(b)). Submit the signed copy of the NOI to the County Project Manager or designee. The County Manager or designee will submit the completed form to the FDEP along with the required permit fee.

### 3.02 CERTIFICATION REQUIREMENTS

- A. On the attached Operators Information form, fill out the name, address and telephone number for Contractor, persons or firms responsible for maintenance and inspection of erosion and sediment control measures, and all Subcontractors.
- B. The Contractor and Subcontractors name in the Operator's Information form shall read, sign and date the attached Contractor's/Subcontractor's Certification form.
- C. The persons or firms responsible for maintenance and inspection of erosion and sediment control measures shall read, sign and date the attached Erosion Control Contractor's Inspection and Maintenance Certification form.
- D. Submit all forms to the County Project Manager before beginning construction.

### 3.03 RETENTION OF RECORDS

- A. Retain a copy of the SWPPP at the construction site and at the Contractor's office from the date that it became effective to the date of project completion.
- B. At project closeout, submit to the County Project Manager or designee all NPDES forms and certifications, as well as a copy of the SWPPP. Stormwater pollution prevention records will be retained by the County Project Manager for a period of three (3) years from the date of project completion.

### 3.04 REQUIRED NOTICES

- A. The following notices shall be posted from the date that the SWPPP goes into effect until the date of final site stabilization:
  - 1. A copy of the submitted NOI and a brief project description, as given in the SWPPP, shall be posed at the construction site and at the Contractor's office in a prominent place for public viewing.

2. Notice to drivers of equipment and vehicles, instructing them to stop, check and clean tires of debris and mud before driving onto traffic lanes. Post such notices at every stabilized construction exit area.
3. Post a notice of waste disposal procedures in an easily visible location on site.
4. Notice of hazardous material handling and emergency procedures shall be posted with the NOI on site. Keep copies of Material Safety Data Sheets at a location on site that is known to all personnel.
5. Keep a copy of each signed certification at the construction site and at the Contractor's office.

REQUIRED FORMS FOLLOW

END OF SECTION

## OPERATOR'S INFORMATION

Owner's Name and Address: Transportation Management Services  
Transportation Engineering, Stormwater Management  
2885 South Horseshoe Drive  
Naples Florida 34104

### Contractor's Name and Address:

General Contractor

Telephone:

Site Superintendent

Telephone:

Erosion Control and  
Maintenance Inspection

Telephone:

### Subcontractor's Name and Addresses:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

## CONTRACTOR'S / SUBCONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of Florida's National Pollutant Discharge Elimination System (NPDES) Construction General Permit that authorizes stormwater discharges associated with activity from the construction site identified as part of this certification, and that I have received a copy of the SWPPP.

Signature: \_\_\_\_\_

Name: (printed or typed) \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: (printed or typed) \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Name: (printed or typed) \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_



EROSION CONTROL CONTRACTOR'S  
INSPECTION AND MAINTENANCE CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of Florida's National Pollutant Discharge Elimination System (NPDES) Construction General Permit that authorizes stormwater discharges associated with activity from the construction site identified as part of this certification, and that I have received a copy of the SWPPP.

Signature: \_\_\_\_\_

Name: (printed or typed) \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

STORMWATER POLLUTION PREVENTION PLAN  
INSPECTION AND MAINTENANCE REPORT

PROJECT: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

INSPECTOR: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTROLS	LOCATIONS	SEDIMENT HEIGHT	PROBLEM DESCRIPTION	MAINTENANCE REQUIRED	REPAIRED BY / DATE

## 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

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 County Project Manager and 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 at the time of testing notify County Project Manager, Engineer and Contractor of observed irregularities or non-conformance of Work or Products.
- F. Perform additional inspections and tests required by County Project Manager and 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 County Project Manager, Engineer, and Contractor. Submittal shall be made within three (3) days of the test. Electronic submittal shall be accepted.
- 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, that test was performed,
  - 7. Type of inspection or test,
  - 8. Date of test,
  - 9. Results of tests,
  - 10. Conformance with Contract Documents.
- C. When requested by County Project Manager or Engineer, provide interpretation of test results.

#### 1.07 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.

#### 1.08 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 County Project Manager, Engineer, and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.
- E. Payment for testing and laboratory services.

#### 1.09 SCHEDULE OF INSPECTIONS AND TESTS

- A. Testing shall be completed in accordance with the FDOT, Collier County, or following requirements whichever is more stringent.
- B. Trench Backfill
  - 1. In unpaved areas, the Contractor shall perform a minimum of one density test per lift of backfill per 400 lineal feet.
  - 2. In paved areas, the Contractor shall perform a minimum of one density test per lift of backfill per 100 lineal feet. At roadway crossing, a minimum of one density test per lift of backfill per roadway lane shall be performed. Additional testing shall be performed by the Contractor if required by the authority having jurisdiction.
  - 3. Asphalt testing shall be completed in accordance with the FDOT Specification and the requirements of the authority having jurisdiction. During initial pavement patching a CTQP Technician shall not be required. During all overlay operation a CTQP Technician shall be required.
  - 4. Concrete – Provide minimum four (4) test cylinders per day's placement. (Test 1 at 7 days, 2 at 28 days, and 1 reserve.)

**PART 2 - PRODUCTS (not used)**

**PART 3 - EXECUTION (not used)**

**END OF SECTION**

## SECTION 01470

### COLOR AUDIO-VIDEO CONSTRUCTION RECORD

#### PART 1 - GENERAL

##### 1.01 SCOPE

Prior to commencing work on individual phases, the Contractor shall take a continuous color audio-video digital recording of Project site by location to serve as a record of pre-construction conditions. Additional still photographs shall be taken to supplement the recording as needed. The Contractor shall complete the Preconstruction Assessment ( See Appendix B) for all site locations. Upon completion of work at a location, a continuous color audio-video digital recording shall be taken by the Contractor. It shall be taken in the same sequence of the preconstruction video. Additional still photographs shall be taken to supplement the recording as needed.

##### 1.02 APPROVAL

No construction shall begin prior to review and approval by County Project Manager and Engineer of the recording covering construction area. 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 County Project Manager and 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 30 days prior to construction in any area. All digital and written records shall become property of the County. Prior to video recording, there will be a meeting between the County Project Manager, 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 RECORDING

Audio-video recording shall be submitted electronically. No flash drives shall be permitted.

## 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 PRECONSTRUCTION ASSESSMENT

A preconstruction assessment for all areas shall be completed utilizing the form found in the Appendices. A minimum of 4 photos shall be included at each location. Additional photos shall be included as necessary to document site conditions. The form shall be completed with the requested information.

### 3.05 AREA OF COVERAGE

- A. Recorded coverage shall include all surface features located within the zone of construction supported by appropriate audio coverage. Coverage shall include, but not be limited to, existing above ground utilities; below grade utility marking; existing sidewalks, walkways, and driveways; existing pavement and drainage; exterior of adjacent houses, sheds, and pools; existing wells, irrigation systems (with irrigation system on for all zones); existing overall yards, shrubs, trees, and miscellaneous features; and all staging/storage areas. Special attention shall be made to any cracks or damage to existing houses, garages, structures, and pavement areas.
- 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.
- C. The following permanent utility services and services relative to temporary utilities shall be provided by the Owner.
  - 1. Electricity for facilities that are occupied and operated by the Owner.
  - 2. Potable water for facilities that are occupied and operated by the Owner.
  - 3. Telephone service for facilities that are occupied and operated by the Owner.

1.04 ELECTRICITY, LIGHTING

- A. For facilities connected to permanent electrical services, the Contractor shall pay the Owner by deductive cost Change Order for all electrical power used in new facilities until facility is accepted, occupied, and operated by the Owner.
- B. 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.
- C. 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.
- D. 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. The Contractor shall 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.
  3. Potable water for field offices.
  4. Potable water or non-potable water for fire protection on the construction site.
- 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. The Contractor shall 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. The Contractor shall 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. The Contractor shall 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 01540

### SECURITY

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

Requirements for project site security

##### 1.02 SITE SECURITY

- A. Facilities Partially Occupied by Owner: Site security of partially occupied sites shall be joint responsibility of Contractor and Owner.
  - 1. The Contractor shall provide security for the following:
    - a. Contractor's and subcontractors' staging areas and storage areas.
    - b. Field offices and sheds.
    - c. New facilities under construction.
    - d. Existing facilities being renovated.
  - 2. The Owner shall provide security for the following:
    - a. Facilities occupied by Owner.
    - b. Site areas solely occupied by Owner.
- B. All field workers associated with execution of the Contract Work must obtain security badges from the Facilities Department of Collier County.
  - 1. Each worker must go to the Facilities Department at the Government Center on Tamiami Trail East for fingerprinting, photographing and completion of security application. Workers that fail the security clearance requirements shall not be allowed on the project.
  - 2. The Contractor shall be responsible for payment to the County of the fee associated with each security badge.
  - 3. The Contractor is responsible for renewal of the security badges and for maintaining a current badge for each worker.
  - 4. The Contractor shall retrieve the security badge from each worker no longer employed at the site and turn badge over to the County.



- C. The Contractor shall be fully responsible for security of construction equipment, products, small tools, and other items related to the construction.

#### 1.03 SECURITY PROGRAM

- A. The Contractor shall protect Work from theft, vandalism, and unauthorized entry.
- B. The Contractor shall maintain program throughout construction period until Owner acceptance precludes the need for Contractor security.

#### 1.04 ENTRY CONTROL

- A. The Contractor shall restrict entrance of persons and vehicles into construction site.

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, preconstruction and post construction topographic surveys as identified, 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 workday.
- C. Submit preconstruction and post construction topographic surveys as specified in Section 01150 Protection of Existing Facilities for the work identified on Plan Sheets 13 and 13A.
- D. Submit Record Documents as specified in Section 01781 – Project Record Documents and in the Collier County Transportation requirements and the City of Naples Utilities requirements.

## 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. Center line location of all storm services (boxes and miter end sections) with top of structure elevation, bottom, pipe inverts, and material type.
  2. Center line location and finish elevation of the perimeter line at stations identified on the construction plans.
  3. Location of all relocated water and wastewater services.
  4. Location and elevation of all water and wastewater utility relocations including deflections. This shall include top and bottom of all vertical deflections.
- E. The record survey shall be on an ongoing manner. Record surveys shall be submitted at completion of each location and at the completion of each phase of the perimeter ditch.

**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 County Project Manager and 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
- J. As-built markup progress plan set

#### 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 County Project Manager 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 County Project Manager.

### 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

# BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND COUNTRY CLUB OF NAPLES

## SECONDARY DRAINAGE SYSTEM IMPROVEMENTS AND WATER MAIN REPLACEMENT

### APPENDIX A COLLIER COUNTY SUPPLEMENTARY CONDITIONS

Following is a copy of Collier County Supplementary Conditions for the Big Cypress Golf and Country Club Estates Stormwater Improvements. The bidder shall review the requirements of these Supplementary Conditions. Where there is a discrepancy, the more stringent requirement of the Construction Plans, Construction Specifications, Stormwater General Conditions, or permit requirements shall apply.



1. The resulting contract will commence upon issuance of a notice to proceed (NTP) and be in effect until completion of the project. Time is of the essence on this project and construction activities from mobilization to demobilization, including final restoration, must be completed within 180 days from the issued NTP.
2. Storage of material within the right-of-way is not allowed unless directed/authorized by Collier County. Any storage within the right-of-way shall be outside the required roadway clear zone.
3. Two (2) weeks prior to beginning construction, the Contractor shall locate by pot holing or soft digging all utilities within the limits of the project (including sanitary sewer laterals at the ROW line) and provide the County, EOR, and CEI a report (before construction) of the findings at each location that includes the station and offset, location, utility type, depth from grade, size, material, date, time, and a minimum of two (2) pictures (an overall site picture and a picture of the utility found). The Contractor shall mark the found utility with a wooden lath and ribbon, with the utility type found, size, and depth written on the lath. This shall be reviewed with the County and Engineer to allow adjustment of infrastructure as required to minimize conflicts. If the Contractor fails to complete this requirement, Contractor payment applications will not be approved.
4. During construction, the Contractor shall keep one lane of traffic open at all times on all affected roads. Flaggers shall be utilized to assist traffic through the construction zone when two lanes of travel are not provided. Flaggers shall possess a Temporary Traffic Control (TTC) Basic Flagger Certificate per requirements set forth by the Florida Department of Transportation. Access onto existing streets and drives shall be maintained to local traffic, emergency vehicles, delivery vehicles, postal vehicles, public transportation, solid waste and recycling vehicles, and property owners. At all times, access must be provided to existing fire hydrants, valves, meters/backflow devices, manholes, and cleanouts.
5. Notification of road closures must be provided in writing to the Collier County Sheriff's Office and the Local Fire Rescue District at least 72 hours in advance of the road closures. Road Closure notification forms shall be submitted to the Collier County Growth Management Department and copies provided to the County Project Manager, EOR, and CEI each week. Access to each residence and business shall be maintained for emergency vehicles at all times. Contractor must provide a road closure plan and schedule for review by the County, EOR, and CEI at least seven (7) days prior to all proposed road closures.
6. Work shall be limited to 7:00 AM to 7:00 PM Monday through Saturday. No work shall be permitted on Sundays and Collier County observed holidays which includes but is not limited to: New Year's Day, Memorial Day, 4<sup>th</sup> of July, Labor Day, Thanksgiving Day, Christmas Day. Additional holidays observed by the County may be added to the list above and no work shall be permitted on those additional holidays.

7. Contractor's site superintendent(s) must attend all meetings relating to the project, including, but not limited to: progress meetings, neighborhood information meetings, onsite meetings, and any other meeting deemed necessary by Collier County.
8. All City of Naples Utilities Standards (design criteria, specifications, and details) are applicable to this project and are made part of the Contract Documents by reference to current City Utilities Standards, located at their web site. In the event of a conflict between any applicable standard and these specifications and drawings, the more stringent requirement shall apply.
9. Contractor is responsible for all costs associated with installing and testing of all compact fill materials and road base and sub-base to avoid future settlement. Within paved areas, at a minimum, backfill and compaction shall be per detail FDOT Standard Plan Index 125001 and Specifications Section 125. Perform compaction density tests at all such backfill areas with spacing not to exceed 100 feet apart and on each compacted layer for paved areas.  
For unpaved areas, compaction shall be per FDOT index 125-001 and testing shall take place a minimum of every 500 feet, or a minimum of one test per every section of pipe installed. Compaction testing density shall be per ASTM D 1557.
10. Contractor is responsible for all inspections and testing unless otherwise specified. For tests to be made by the Contractor, the testing personnel shall make the necessary inspections, furnish all material and equipment to properly perform the testing, and furnish all results to Collier County for acceptance of all equipment and installation as required.
11. Contractor is responsible for the cost of all testing as required.
12. The Contractor shall provide for review by the Owner and Engineer a detailed sequence of construction that identifies how the secondary stormwater infrastructure, pump stations, and water main replacement will be installed, as well as system testing, while minimizing disruption to the community.
13. Clearing and grubbing shall be limited to work areas only. Contractor is responsible for restoring all areas disturbed by their work, except as noted on the plans. All disturbed areas shall be restored to preconstruction conditions. Contractor shall be required to water vegetation replaced until established/rooted.
14. Trees and shrubs within the work area shall be removed as directed by Collier County. The Contractor shall coordinate all work with the property owner. Private irrigation within the ROW shall be fully restored to preconstruction condition or better, unless in conflict with new utilities. Full irrigation coverage of property must be maintained during construction and demonstrated following the completion of the work. No additional payment shall be made for restoration per the ROW standards.

15. It is the Contractor's responsibility to replace/repair any existing landscaping, sod, irrigation systems, fencing etc. that is damaged/removed outside the limits of the ROW (on private property) to their original conditions or better, except as noted on plans. Contractor to coordinate with property owner and Collier County for access to private property via right of entry.
16. In accordance with the Collier County requirements, a pre-construction video shall be completed, with electronic copies provided to the County and Engineer. Contractor shall supplement these videos with still photographs (in addition to the pictures required in the Pre-Construction Assessment Forms) as necessary to reflect existing conditions. This shall include but not be limited to sod type, driveways and driveway culvert, and driveway conditions from the ROW to the property structure, as applicable. The Contractor may be required to restore private properties to conditions better than existing, at no additional cost to the County, if the Contractor fails to sufficiently document existing conditions. Upon completion of post construction video shall be completed with electronic copies provided to the County and Engineer.
17. Contractor is responsible for all construction layout and preparation of Record Survey in accordance with County requirements. This includes but is not limited to location of existing ROW, replacement water main, valves, fire hydrants, water services, stormwater improvements, and approved changes.
18. Contractor shall contact all utility suppliers, including but not limited to Collier County, Comcast, Summit Broadband, Inc., Florida Power & Light, and CenturyLink for locating of their facilities within the project corridor. Contractor shall coordinate with these utilities for protection and adjustment of their facilities as needed. All costs shall be included in individual bid items.
19. Contractor is responsible for all Maintenance of Traffic (MOT) for the project. MOT shall be in accordance with the FDOT Standard Index and the Manual of Uniform Traffic Control Devices (MUTCD, Part VI). Existing traffic conditions may warrant night work. If night work is required, the Contractor will be responsible for proper MOT at no additional cost.
20. The Contractor is responsible for obtaining equipment and material storage areas (including fencing 8-ft high with screen or as required by Collier County) and all necessary permits, ROW, and temporary construction access. For storage areas, the Contractor shall:
  - a. Provide a copy of all Agreements to the County and Engineer of Record.
  - b. Obtain a ROW permit for the storage area, as required.
  - c. Obtain a Temporary Use Permit for the storage area, as required.
21. The Contractor is responsible for maintaining all work areas in a safe and clean manner as identified in the documents. This includes but is not limited to daily watering and

intermediate watering as needed of bare soil roadways and sweeping of roadway and sidewalk surfaces.

22. Contractor is responsible for restoration of areas damaged outside of work area if the damage is a result of the construction including, but not limited, to detours and construction traffic non-contiguous to the project area, offsite construction storage areas, receiving water bodies, etc.
23. If road/driveway dewatering ramps are utilized at roadways/driveways, the contractor shall provide barricades on either side of the ramps to protect/warn vehicles from driving over manifolds/connection sections on either side of all ramps.
24. All excavation shall be unclassified with no additional payment to be made for rock, unsuitable material, or dewatering. The Contractor is responsible for making his own site observations and exploration to determine site conditions prior to bidding.
25. The Contractor shall prepare and provide for review by the Owner and Engineer an MOT Plan, Tropical Storms and Hurricanes Plan, and Safety Program/ Risk Management Program prior to construction commencement.
26. The Contractor shall conform to the requirements in Collier County Ordinance 2019-17: An Ordinance providing for establishment of a water pollution control and prevention ordinance, providing for repeal of Ordinance No. 87-79, as amended, and resolution No. 88-311: providing for inclusion in the Code of Laws and Ordinances; providing for conflict and severability; and providing for an effective date.
27. It is recommended that the Contractor review and follow the recommendations for field measuring turbidity pursuant to the following FDEP SOP FT1600: [https:// www.youtube.com/ watch?v=k6x22q9uoAY&feature=youtu.be](https://www.youtube.com/watch?v=k6x22q9uoAY&feature=youtu.be)
28. The Contractor shall coordinate with all other Contractors within the project limits for work within the ROW and/or private property and shall make accommodations to not inhibit work by other Contractors.
29. Coordination with the following agencies, above and beyond the Collier County Road Alert, may be required throughout the duration of construction: USPS, Collier County Sheriff's Office, Fire Department and EMS, Waste Management (garbage and recycling), and Collier County Public Schools (school bus routes). Additionally, if required by the USPS, a "mailbox bank" shall be installed by the Contractor at no additional charge.
30. The Contractor shall furnish, install, and maintain project identification sign(s) at the discretion of Collier County.

The Contractor shall update the information on the signs as required by the Owner up to two times during the project and shall remove the signs upon completion of

construction. Contractor's name and the name and telephone number of the Contractor's contact person shall be included on the sign.

Graphic design, style of lettering, and colors shall be approved by the Engineer and the Owner. The sign shall be manufactured by a professional, experienced in the type of work required and shall be painted to adequately resist weathering and fading for scheduled construction period. The sign shall be one piece and made of new marine grade plywood wood or metal, in sound condition, structurally adequate and suitable for specified finish, with a thickness as required to span framing members, to provide even, smooth surface without waves or buckles. All hardware shall be galvanized bolts, nuts and washers. Nailing will not be permitted. Each sign shall be of size of not less than 32 square feet with design, lettering, and construction as shown in the following Project Sign detail specifications:

The left one-quarter (1/4) of the sign shall contain the official Collier County logo and a list of the current Collier County Board of County Commissioners with names and district. Color shall be English Ivy Green glossy background with white letters.

Rick LoCastro - 1

Chris Hall - 2

Burt L. Saunders - 3

Dan Kowel - 4

William L. McDaniel, Jr. - 5



The right three-quarters of the sign shall contain the following on a white background with English Ivy Green letters (as an example):

Name of Project: Big Cypress Golf & Country Club and Country Club of Naples Stormwater Pump Station Improvements

Project Design Professional: Bowman Consulting Group

Project Contractor:

Project Management: Collier County Growth Management Department

Project Inspector:

Project Completion Date:

For more information, please call: (239) 227-XXXX or email XXX@CollierCountyFL.gov

Color: White background with English Ivy Green letters

The right lower one quarter (1/4) of the sign shall contain the official County logo

- Overall border shall be glossy black.
- The size of the sign shall be four feet (4') high by eight feet (8') wide.
  - The sign shall be in conformance with the Collier County Land Development Code and in a format approved by the County.
- Construction sign shall be supported by a minimum of two 4" X 4" posts painted white.

- Removal and disposal of the sign after project completion is the responsibility of the contractor,
- A proof of the sign must be approved by the County, Engineer of Record, and CEI before the contractor sends it for production.

31. The following Permits for the Project will be obtained by Collier County or are the Contractor's responsibility to obtain, as noted below. Copies of all obtained Permits shall be made available to the Contractor. It shall be the Contractor's responsibility to read and understand all Permits and Permit Conditions.

- FDEP Dewatering: The Contractor is required to obtain coverage under the Florida Department of Environmental Protection (FDEP) Generic Permit for Discharge of Groundwater from Dewatering Operations prior to discharging produced groundwater from dewatering activities. Alternatively, the Contractor may elect to obtain coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities, which will cover both construction and dewatering operations.
- Collier County Temporary Use Permit (for storage areas) - To be submitted by the Contractor.
- SFWMD Generic Permit for Discharge of Ground Water from Dewatering Operations (as required).
- SFWMD Dewatering Permit Letter Modification and Extensions to be obtained by Contractor (as required).
- SFWMD Individual Water Use Permit for Dewatering: to be obtained by the Contractor (as required).

END OF SECTION

# BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND COUNTRY CLUB OF NAPLES

## SECONDARY DRAINAGE SYSTEM IMPROVEMENTS AND WATER MAIN REPLACEMENT

### APPENDIX B PRECONSTRUCTION ASSESSMENT FORMS

**PRE- CONSTRUCTION ASSESSMENT FORM**  
**BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES SECONDARY DRAINAGE IMPROVEMENTS**  
**Driveway/Replacement Plan/Existing Sod**

Address: \_\_\_\_\_

**Existing Condition Photographs**

Date of photographs: \_\_\_\_\_

<b>“Photo”</b>	<b>“Photo”</b>
<b>“Photo”</b>	<b>“Photo”</b>

Driveway Type: \_\_\_\_\_ Width at Pavement: \_\_\_\_\_ Width at R/W: \_\_\_\_\_

Sod Type: \_\_\_\_\_ Existing Percentage of Sod Type: \_\_\_\_\_

Special Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_



**PRE- CONSTRUCTION ASSESSMENT FORM**  
**BIG CYPRES GOLF AND COUNTRY CLUB ESTATES SECONDARY DRAINAGE IMPROVEMENTS**  
**Easement Restoration**

Address: \_\_\_\_\_

**Existing Condition Photographs**

Date of photographs: \_\_\_\_\_

<b>“Photo”</b>	<b>“Photo”</b>
<b>“Photo”</b>	<b>“Photo”</b>

Driveway Type: \_\_\_\_\_ Width at Pavement: \_\_\_\_\_ Width at R/W: \_\_\_\_\_

Sod Type: \_\_\_\_\_ Existing Percentage of Sod Type: \_\_\_\_\_

Special Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

# BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND COUNTRY CLUB OF NAPLES

## SECONDARY DRAINAGE SYSTEM IMPROVEMENTS AND WATER MAIN REPLACEMENT

### APPENDIX C SOUTH FLORIDA WATER MANAGEMENT DISTRICT PERMIT

Following are the South Florida Water Management District permits for the project. The bidder shall review the requirements of these permits.



**South Florida Water Management District**  
**Individual Environmental Resource Permit No. 11-108694-P**  
**Date Issued: May 8, 2023**

**Permittee:** Collier County Board of County Commissioners  
3295 Tamiami Trail East Bldg C2  
Naples, FL 34112

**Project:** Collier County BCGCCN Storm Sewer Improvements

**Application No.** 230123-37262

**Location:** Collier County, See Exhibit 1

Your application for an Individual Environmental Resource Permit is approved. This action is taken based on Chapter 373, Part IV, of Florida Statutes (F.S.) and the rules in Chapter 62-330, Florida Administrative Code (F.A.C.). Unless otherwise stated, this permit constitutes certification of compliance with state water quality standards under section 401 of the Clean Water Act, 33 U.S.C. 1341, and a finding of consistency with the Florida Coastal Management Program. Please read this entire agency action thoroughly and understand its contents.

This permit is subject to:

- Not receiving a filed request for a Chapter 120, F.S., administrative hearing.
- The attached General Conditions for Environmental Resource Permits.
- The attached Special Conditions.
- All referenced Exhibits.

All documents are available online through the District's ePermitting site at [www.sfwmd.gov/ePermitting](http://www.sfwmd.gov/ePermitting).

If you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

The District does not publish notices of action. If you wish to limit the time within which a person may request an administrative hearing regarding this action, you are encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Legal requirements and instructions for publishing a notice of agency action, as well as a noticing format that can be used, are available upon request. If you publish a notice of agency action, please send a copy of the affidavit of publication provided by the newspaper to the District's West Palm Beach office for retention in this file.

If you have any questions regarding your permit or need any other information, please call us at 1-800-432-2045 or email [epermits@sfwmd.gov](mailto:epermits@sfwmd.gov).

A handwritten signature in blue ink, appearing to read "M. Lawrence", enclosed within a blue oval.

Melissa M. Lawrence, P.E.  
Bureau Chief, Environmental Resource Bureau

**South Florida Water Management District  
Individual Environmental Resource Permit No. 11-108694-P**

<b>Date Issued:</b>	May 8, 2023	<b>Expiration Date:</b>	May 8, 2028
<b>Project Name:</b>	Collier County BCGCCN Storm Sewer Improvements		
<b>Permittee:</b>	Collier County Board of County Commissioners 3295 Tamiami Trail East Bldg C2 Naples, FL 34112		
<b>Operating Entity:</b>	Collier County Board of County Commissioners 3295 Tamiami Trail East Bldg C2 Naples, FL 34112		
<b>Location:</b>	Collier County		
<b>Permit Acres:</b>	170.50 acres		
<b>Project Land Use:</b>	Residential Recreational Including Golf		
<b>Special Drainage District:</b>	N/A		
<b>Water Body Classification:</b>	CLASS III		
<b>FDEP Water Body ID:</b>	3278K		
<b>Wetland and Surface Water Impacts:</b>	0.03 acres		
<b>Conservation Easement to District:</b>	No		
<b>Sovereign Submerged Lands:</b>	No		

**Project Summary**

This Environmental Resource Permit authorizes the Construction and Operation of a stormwater management (SWM) system serving 170.50 acres of a residential and golf development known as Collier County BCG-CCN Storm Sewer Improvements.

This project proposes modifications to the Country Club of Naples Golf Course, and the Big Cypress Golf and Country Club Estates Community. Improvements include re-establishing the pump stations authorized under Permit No. 11-00064-S including concrete pads and utility connections, relocating the south pump station from the southeast corner of the golf course to Lake 11, adding additional SWM connections between the residential areas and golf course stormwater lakes, providing additional lake interconnections, and regrading conveyance swales in the residential and golf course areas. Drainage easements will be obtained by Collier County for maintenance access to portions of the SWM system. This project will restore site perimeter berm and discharge stations to reduce the impacts of future storm events.

This project includes 7.14 acres of direct improvements including 6.61 acres for secondary drainage system improvements and 0.53 acres for the proposed pump station improvements. The project will be phased to coordinate construction activities, including changes to the SWM system, as proposed by the Country Club of Naples and authorized under Application No. 221005-36124, Permit No. 11-108542-P. Refer to Exhibit No. 2.0 for Stormwater Management Plans.

For information on wetland and other surface water (OSW) impacts, please see the Wetlands and OSW's section of this permit.

Issuance of this permit constitutes certification of compliance with state water quality standards in accordance with Rule 62-330.062, F.A.C.

**Site Description**

The site contains the existing Country Club of Naples Golf Course and Big Cypress Golf and Country Club Estates. The project is bounded to the west by the Moorings Park Community, to the north by Pine Ridge Road, to the south by Solana Road, and to the east by the Gordon River Extension in Collier County. Refer to Exhibit No. 1.0 for a Location Map.

**Background**

The project pre-dates the District's Regulatory Program; the pumps serving the project were originally authorized under Permit No. 11-00064-S for The Country Club of Naples Golf Course and Big Cypress Golf and Country Club Estates (BCG-CCN). Subsequent minor modifications to the SWM system have been authorized including the addition of pickleball courts, parking area additions, lake interconnection improvements, and the installation of a temporary pump system which is currently in operation. The site has experienced historic localized flooding, culminating with significant flooding during the landfall of Hurricane Irma in September 2017. As a result Collier County commissioned a study to recommend improvements to the Gordon River Basin in coordination with a design team, the local community, and other applicable agencies.

**Ownership, Operation and Maintenance**

The Collier County Board of County Commissioners has indicated that the works proposed will be within areas that will be granted to them by easement; prior to commencement of construction, documentation of acquisition for the County must be submitted to the District.

Perpetual operation and maintenance of the SWM system will be the responsibility of the Collier County Board of County Commissioners. Upon conveyance or division of ownership or control of the property or the system, the permittee must notify the Agency in writing within 30 days, and the new owner must request transfer of the permit.

## **Engineering Evaluation:**

### **Land Use**

Please refer to the Engineering Evaluation Tables for approximate land use coverage.

### **Water Quality**

This project does not propose any significant modifications to the existing lake areas or storage volumes. The required water quality treatment volume is presumed to be provided in the existing master SWM system as authorized under Permit No. 11-00064-S. Any future modifications to the SWM system that substantially alter the conditions proposed as a part of this project may require additional water quality considerations. The project will not adversely affect the quality of downstream receiving waters.

The project includes implementation of a Turbidity and Erosion Control Plan (Exhibit No. 2.0) as additional reasonable assurance of compliance with water quality criteria during construction.

### **Water Quantity**

Permit No. 11-00064-S authorized the construction of a control structure in the southeast corner of the golf course development. The control structure was never constructed and is not proposed as a part of this project. In addition, offsite discharge pipes have been established and will be removed under this authorization. Discharge will be solely controlled by the proposed pump stations during normal operating conditions, check valves will be installed at the Solana Road connection as authorized under Permit No. 11-105620-P to prevent backflow during significant storm events.

### **Discharge**

Permit No. 11-00064-S authorized an offsite discharge rate of 15.70 CFS. This project proposes the reestablishment of two (2) pump stations and will not exceed the previously authorized discharge rates. Collier County will operate the proposed surface water discharge pump stations. Refer to Exhibit No. 2.1 for Pump Station Operation Schedule.

The north pump station will remain in the same location as previously authorized and will continue to discharge into an existing, onsite spreader swale prior to offsite discharge directly into the Gordon River. The southern pump station will be relocated to the south side of Lake 11 and discharge into the Solana Road North Ditch for conveyance prior to discharge into the Gordon River. Improvements to the Solana Road North Ditch have been authorized under Permit No. 11-105620-P.

### **Perimeter Berm**

The North Station Lake proposes a peak stage of 7.10' NAVD and a minimum proposed perimeter berm elevation of 7.80' NAVD. The South Station Lake proposes a peak stage of 6.30' NAVD and a minimum perimeter berm elevation of 6.90' NAVD. In addition, portions of the golf cart paths will be raised to function as a perimeter berm as a part of both this project and as authorized under Permit No. 11-108542-P.

### **Flood Plain/Compensating Storage**

The project will not cause any impacts or encroachment to the floodplain, no additional fill is proposed to be imported onto the site.

### **Certification, Operation, and Maintenance**

Pursuant to Chapter 62-330.310, F.A.C., Individual Permits will not be converted from the construction phase to the operation phase until construction completion certification of the project is submitted to and accepted by the District. This includes compliance with all permit conditions, except for any long term maintenance and monitoring requirements. It is suggested that the permittee retain the services of an appropriate professional registered in the State of Florida for periodic observation of construction of the project.

For projects permitted with an operating entity that is different from the permittee, it should be noted that

until the construction completion certification is accepted by the District and the permit is transferred to an acceptable operating entity pursuant to Sections 12.1 - 12.3, ERP AH Vol. I and Section 62-330.310, F.A.C., the permittee is liable for operation and maintenance in compliance with the terms and conditions of this permit.

In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all SWM systems and works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity.

The efficiency of SWM systems, dams, impoundments, and most other project components will decrease over time without periodic maintenance. The operation and maintenance entity must perform periodic inspections to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of projects that may endanger public health, safety, or welfare, or the water resources. If deficiencies are found, the operation and maintenance entity is responsible for correcting the deficiencies in a timely manner to prevent compromises to flood protection and water quality. See Section 12.4, ERP AH Vol. I for Minimum Operation and Maintenance Standards.

Notable project components requiring routine inspection and maintenance may include but are not limited to:

- Side slopes for stormwater lakes and ponds – maintain side slopes no steeper than 4:1 (horizontal:vertical) to a depth of 2.0 feet below the control elevation and nurtured or planted from 2.0 feet below to 1.0 feet above the control elevation pursuant to Section 5.4.2, ERP AH Vol. II.
- Conveyance pipes, conveyance structures and discharge structures – all pipes and structures must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.
- Exfiltration trenches – all pipes and structures must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.
- Swales – maintain the permitted cross-section and vegetative cover.
- Underground storage facilities – all facilities must be inspected for structural integrity and be maintained clear of trash, sediment and vegetative debris.
- Pumps – float switches should be inspected and any obstructions removed to ensure proper operation; intake and discharge pipes should be maintained clear of trash, sediment and vegetative debris; motors should be maintained to ensure proper operation.

**Engineering Evaluation Tables:**

**Land Use**

<b>Basin</b>	<b>Land Type</b>	<b>Area (ac)</b>	<b>% of Total Basin</b>
BCG-CCN	Building Coverage	18.50	10.85
	Pavement	16.30	9.56
	Lake	9.10	5.34
	Wetland	7.40	4.34
	Pervious	119.20	69.91
	<b>Total:</b>	170.50	100%



## **Environmental Evaluation:**

### **Wetlands and Other Surface Waters**

The project site contains 7.40 acres of wetlands and 1.63 acres of existing stormwater lakes and ditches totaling 9.03 acres. Please see Exhibit 3.0, FLUCCS Map for wetland and other surface water locations. The dominant wetland habitat type on the property includes 6.02 acres of Disturbed Cypress (FLUCCS codes 6219 E1, E3, and E4). The remaining wetlands on-site include 0.03 acres of Disturbed Hydric Pine (FLUCCS code 6259 E4), 0.08 acres of Disturbed Willow/Popash (FLUCCS code 6189 E4), and 1.27 acres of Disturbed Freshwater Marsh (FLUCCS code 6419 E2). Additional descriptions are available in the ePermitting file.

The project will result in 0.03 acres of wetland impacts which can be described as Disturbed Freshwater Marsh (6419 E2) and 0.14 acres of impacts to the existing stormwater ponds (524), which are not delineated as other surface waters pursuant to Rule 62-340.700, F.A.C. Locations of the wetlands being impacted and work in existing stormwater ponds can be found in Exhibit No. 3.1, Impact Map.

The project design will result in minimal impacts to wetlands. The wetland being impacted by the project is isolated, low quality, and under 0.5 acres in size. Therefore, pursuant to Section 10.2.2.1 of the Applicant's Handbook Volume I, no mitigation is required for the proposed wetland impacts. No secondary wetland impacts are associated with this project.

### **Fish, Wildlife, and Listed Species**

The project site does not contain significant habitat for wetland-dependent endangered or threatened wildlife species, or species of special concern. A listed species survey was completed on June 8, 2022. No wetland-dependent endangered or threatened species or species of special concern were observed onsite. Submitted information indicates that potential use of the site by such species is minimal.

This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if, in the future, endangered or threatened species or species of special concern are discovered on the site.

Environmental Evaluation Tables:

Summary

Wetlands and Other Surface Waters: 0.03 acres  
Direct Impacts: 0.03 acres  
Secondary impacts: 0 acres  
Net UMAM Functional Loss/Gain: 0 units  
Total Onsite Mitigation Area: 0 acres  
Total Offsite Mitigation Area: 0 acres

Total Mitigation Bank Credits Provided

Mitigation Bank	Type	Total Credits
		0
Total:		0

Group 1

Activities in Wetlands or Other Surface Waters, Not Including Mitigation at a Bank

ID	Acres	Action	Community Description	Current Score	With Project Score	UMAM Loss
Wetland	0.03	Direct Impact	Freshwater Marshes			0.000
Total:		0.03				0.000

**Related Concerns:****Water Use Permit Status**

The permittee has indicated that the existing Water Use Permit No. 11-00064-W, Application No. 050202-7 (groundwater well from the Lower Tamiami Aquifer) will be used as a source for irrigation water for the project.

The permittee has indicated that dewatering is required for construction of this project. Water Use Application No. 230327-7 is being reviewed concurrently for this project.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation.

**Historical/ Archaeological Resources**

No information has been received that indicates the presence of archaeological or historical resources on the project site or indicating that the project will have any effect upon significant historic properties listed, or eligible for listing in the National Register of Historic Places.

This permit does not release the permittee from complying with any other agencies requirements in the event that historical and/or archaeological resources are found on the site.

## **General Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.**

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505>), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.
5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms, and conditions of the permit for the life of the project or activity.
6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
  - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex- "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit"[Form 62-330.310(3)]; or
  - b. For all other activities- "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
  - c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.
7. If the final operation and maintenance entity is a third party:
  - a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations, and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the

County in which the activity is located.

- b. Within 30 days of submittal of the as-built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.
8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.
9. This permit does not:
  - a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
  - b. Convey to the permittee or create in the permittee any interest in real property;
  - c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
  - d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.
10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.
11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.
12. The permittee shall notify the Agency in writing:
  - a. Immediately if any previously submitted information is discovered to be inaccurate; and
  - b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.
17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

**Special Conditions for Individual Environmental Resource Permits, 62-330.350, F.A.C.**

1. The construction authorization for this permit shall expire on the date shown on page 2.
2. Operation and maintenance of the stormwater management system shall be the responsibility of the Collier County Board of County Commissioners. The permittee shall notify the Agency in writing within 30 days of any conveyance or division of ownership or control of the property of the system, and the new owner must request transfer of the permit in accordance with Rule 62-330.340, F.A.C.
3. Prior to the commencement of construction and pursuant to Section 4.2.3(d)(3) of Applicant's Handbook Volume I, the permittee shall demonstrate ownership of the project area to the District's Environmental Resource Compliance staff.
4. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth.
5. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
6. Prior to any future construction, the permittee shall apply for and receive an Individual ERP. As part of the permit application, the applicant for that phase shall provide documentation verifying that the proposed construction is consistent with the design of the master stormwater management system, including the land use and site grading assumptions.
7. Prior to initiating construction activities associated with this Environmental Resource Permit (ERP), the permittee is required to hold a pre-construction meeting with field representatives, consultants, contractors, District Environmental Resource Bureau (ERB) staff, and any other local government entities as necessary. The purpose of the pre-construction meeting is to discuss construction methods, sequencing, best management practices, identify work areas, staking and roping of preserves where applicable, and to facilitate coordination and assistance amongst relevant parties. To schedule a pre-construction meeting, please contact ERB staff from the Fort Myers Service Center at (239) 338-2929 or via e-mail at: [precon@sfwmd.gov](mailto:precon@sfwmd.gov). When sending a request for a pre-construction meeting, please include the application number, permit number, and contact name and phone number.
8. This permit does not authorize the permittee to cause any adverse impact to or "take" of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of "take" and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a "take" permit cannot be issued. Requests for further information or review can be sent to: [FWCConservationPlanningServices@MyFWC.com](mailto:FWCConservationPlanningServices@MyFWC.com).

## Project Work Schedule for Permit No. 11-108694-P

The following activities are requirements of this Permit and shall be completed in accordance with the Project Work Schedule below. Please refer to General Conditions, Special Conditions and/or Specific Conditions for more information. Any deviation from these time frames will require prior approval from the District's Environmental Resources Bureau and may require a modification to this permit. Such requests must be made in writing and shall include: (1) reason for the change, (2) proposed start/finish and/or completion dates, and (3) progress report on the status of the project.

Condition No.	Date Added	Description (Application Number)	Due Date	Date Satisfied
GC 4	05/08/2023	Construction Commencement Notice	Prior to Construction	
GC 6	05/08/2023	Submit Certification	30 Days After Construction Completion	
GC 7	05/08/2023	Submit Operation Transfer Request	Within 30 days of Certification	
SC 3	05/08/2023	Submit Proof of Ownership	Prior to Construction	
SC 7	05/08/2023	Pre-Construction Meeting	Prior to Construction	

GC = General Condition

SC = Special Condition



**Distribution List**

Richard E Brylanski, Hole Montes, Inc

Kenneth P. Passarella, Passarella & Associates Inc

Blayne Gilbert, Country Club Of Naples, Inc

Audubon of Florida

Div of Recreation and Park - District 4

US Army Corps of Engineers - Permit Section

## Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website at <http://my.sfwmd.gov/ePermitting> and searching under this application number 230123-37262.

[Exhibit No. 1.0 Location Map](#)

[Exhibit No. 2.0 Stormwater Management Plans](#)

[Exhibit No. 2.1 Pump Schedule](#)

[Exhibit No. 3.0 FLUCCS Map](#)

[Exhibit No. 3.1 Impact Map](#)

## **NOTICE OF RIGHTS**

As required by Chapter 120, Florida Statutes, the following provides notice of the opportunities which may be available for administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, or judicial review pursuant to Section 120.68, Florida Statutes, when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Some of the legal proceedings detailed below may not be applicable or appropriate for your situation. You may wish to consult an attorney regarding your legal rights.

### **RIGHT TO REQUEST ADMINISTRATIVE HEARING**

A person whose substantial interests are or may be affected by the South Florida Water Management District's (District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Florida Statutes. Persons seeking a hearing on a District decision which affects or may affect their substantial interests shall file a petition for hearing in accordance with the filing instructions set forth herein within 21 days of receipt of written notice of the decision unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Florida Statutes; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Florida Statutes. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, posting, or publication that the District has taken or intends to take final agency action. Any person who receives written notice of a District decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action that materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional point of entry pursuant to Rule 28-106.111, Florida Administrative Code.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Florida Statutes, shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The District may grant the request for good cause. Requests for extension of time must be filed with the District prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and whether the District and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

### **FILING INSTRUCTIONS**

A petition for administrative hearing must be filed with the Office of the District Clerk. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at the District's headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.



- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the District's security desk does not constitute filing. It will be necessary to request that the District's security officer contact the Office of the District Clerk. An employee of the District's Clerk's office will receive and process the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at [clerk@sfwmd.gov](mailto:clerk@sfwmd.gov). The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document.

#### **INITIATION OF ADMINISTRATIVE HEARING**

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Rules 28-106.201 and 28-106.301, Florida Administrative Code, initiation of an administrative hearing shall be made by written petition to the District in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other District identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner, petitioner's attorney or qualified representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the District's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the District's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the District's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the District to take with respect to the District's proposed action.

#### **MEDIATION**

The procedures for pursuing mediation are set forth in Section 120.573, Florida Statutes, and Rules 28-106.111 and 28-106.401–.405, Florida Administrative Code. The District is not proposing mediation for this agency action under Section 120.573, Florida Statutes, at this time.

#### **RIGHT TO SEEK JUDICIAL REVIEW**

Pursuant to Section 120.68, Florida Statutes, and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final District action may seek judicial review of the District's final decision by filing a notice of appeal with the Office of the District Clerk in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the appropriate district court of appeals via the Florida Courts E-Filing Portal.

# BIG CYPRESS GOLF AND COUNTRY CLUB ESTATES AND COUNTRY CLUB OF NAPLES

## STORMWATER PUMP STATIONS SECONDARY DRAINAGE SYSTEM IMPROVEMENTS AND WATER MAIN REPLACEMENT

### APPENDIX D CITY OF NAPLES UTILITIES DEMOLITION, PIPE REMOVAL, AND ABANDONMENT

The bidder shall review the City of Naples Utilities Standards for all requirements of water and wastewater construction on the project. Special attention is drawn to the two following specifications in regard to demolition, pipe removal, and abandonment. The existing water main to be replaced has been identified as asbestos cement (AC) requiring special attention.

Section 02050 Demolition

Section 02210 Pipe Removal and Abandonment

## SECTION 02050

### DEMOLITION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes: All work necessary for the removal and disposal of structures, foundations, piping, equipment and roadways, or any part thereof including masonry, steel, reinforced concrete, plain concrete, electrical facilities, and any other material or equipment shown or specified to be removed.
- B. Basic Procedures and Schedule: Carry out demolition so that adjacent structures, which are to remain, are not endangered. Schedule the work so as not to interfere with the day-to-day operation of the existing facilities. Do not block doorways or passageways in existing facilities.
- C. Additional Requirements: Provide dust control and make provisions for safety.
- D. Related Work Specified in Other Sections Includes:
  - 1. Section 01045 – Connection to Existing Systems
  - 2. Section 02110 – Site Clearing

##### 1.2 SUBMITTALS

- A. Provide all submittals, including the following, as specified in Division 1.
- B. Site Inspection: Visit the site and inspect all existing structures. Observe and record any defects that may exist in buildings or structures adjacent to but not directly affected by the demolition work. Provide the City Manager or designee with a copy of this inspection record and obtain the ENGINEER's and the City's Manager or designee approval prior to commencing the demolition.

##### 1.3 QUALITY ASSURANCE

- A. Limits: Exercise care to break concrete well for removal in reasonably small masses. Where only parts of a structure are to be removed, cut the concrete along limiting lines with a suitable saw so that damage to the remaining structure is held to a minimum.

#### PART 2 PRODUCTS

Not Used

## PART 3 EXECUTION

### 3.1 EXAMINATION OF EXISTING DRAWINGS

- A. Available drawings of existing structures and equipment will be available for inspection at the office of the ENGINEER.

### 3.2 PROTECTION

- A. General Safety: Provide warning signs, protective barriers, and warning lights as necessary adjacent to the work as approved or required. Maintain these items during the demolition period.
- B. Existing Services: Undertake no demolition work until all mechanical and electrical services affected by the work have been properly disconnected. Cap, reroute or reconnect interconnecting piping or electrical services that are to remain in service either permanently or temporarily in a manner that will not interfere with the operation of the remaining facilities.
- C. Hazards: Perform testing and air purging where the presence of hazardous chemicals, gases, flammable materials or other dangerous substances is apparent or suspected, and eliminate the hazard before demolition is started.

### 3.3 DEMOLITION REQUIREMENTS

- A. Explosives: The use of explosives will not be permitted.
- B. Protection: Carefully protect all mechanical and electrical equipment against dust and debris.
- C. Removal: Remove all debris from the structures during demolition and do not allow debris to accumulate in piles.
- D. Abandoned Pipelines: Fill all abandoned pipelines using grout in accordance with Section 03310.
- E. Access: Provide safe access to and egress from all working areas at all times with adequate protection from falling material.
- F. Protection: Provide adequate scaffolding, shoring, bracing railings, toe boards and protective covering during demolition to protect personnel and equipment against injury or damage. Cover floor openings not used for material drops with material substantial enough to support any loads placed on it. Properly secure the covers to prevent accidental movement.
- G. Lighting: Provide adequate lighting at all times during demolition.
- H. Closed Areas: Close areas below demolition work to anyone while removal is in progress.

- I. Material Drops: Do not drop any material to any point lying outside the exterior walls of the structure unless the area is effectively protected.
- J. Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with manufacturer's instructions or government regulations as applicable.

### 3.4 ASBESTOS-CONCRETE (AC) PIPE

- A. If existing asbestos-cement pipe is encountered during the course of construction, remove the AC pipe and replace it with C900 PVC pipe having a pressure rating as required elsewhere in these specifications. Replace the AC pipe with PVC pipe for a distance of 10 feet each way from the centerline of the pipe under construction or 5 feet beyond the length of AC pipe exposed by trench excavation, whichever is greater. A change order will be issued for required replacement of AC pipe not shown on the drawings.
- B. Coordinate the shutdown of the AC pipeline with the City Manager or designee in accordance with Section 01045, including proper notice to the City Manager or designee and any customers that may be affected by the shutdown as required by these specifications and/or current Water Department policy. In the event of an unanticipated encounter with AC pipe, immediately recover and protect the pipe and notify the CITY Water Department.
- C. Perform cutting of AC pipe by means of cutting wheels mounted in a chain wrapped around the pipe barrel. Do not use power driven saws with abrasive discs or any other means that produce concentrations of airborne asbestos dust.

### 3.5 DISPOSAL OF MATERIALS

- A. Final Removal: Dispose of AC pipe in accordance with CITY special handling requirements and coordination with City Solid Waste Management Department. Remove all other debris, rubbish, scrap pieces, equipment, and materials resulting from the demolition. Take title to all demolished materials and remove such items from the site.

END OF SECTION



NO TEXT FOR THIS PAGE

## SECTION 02210

### PIPE REMOVAL AND ABANDONMENT

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes: Removal and abandonment of piping and appurtenances, wholly or in part, as required to complete Work as shown on the Drawings and specified in this Section.
- B. Work on and/or removal of asbestos cementitious pipe shall be performed per OSHA, EPA, NESHAPS, and State regulations and must be supervised by a person that has satisfactorily completed an Asbestos Abatement Project Supervisor course.
- C. Related Work Specified in other Sections Includes:
  - 1. Section 01045 – Connection to Existing Systems
  - 2. Section 02222 – Excavation – Earth and Rock
  - 3. Section 02223 – Backfilling
  - 4. Section 03310 – Concrete, Masonry Mortar and Grout

##### 1.2 SUBMITTALS

- A. General: Provide all submittals, including the following, as specified in Division 1.
- B. Submit the following:
  - 1. Proposed methods for pipe removal and abandonment;
  - 2. Equipment proposed to be used to do pipe removal and abandonment work;
  - 3. Resume of pipe grouting subcontractor;
  - 4. Pipe removal and abandonment schedule/sequence.
- C. If a detour is required, submit a traffic control plan for approval to City Manager or designee and/or the Florida Department of Transportation as described in Section 01570.

##### 1.3 SITE CONDITIONS

- A. General
  - 1. Prior to any work, a proper and approved maintenance of traffic plan (MOT) shall be submitted to the engineer and the City.
  - 2. Execute pipe removal and abandonment so that there is no injury to persons or damage to adjacent buildings, structures, equipment, materials, piping, wiring, pavement, fences, trees, guardrails, and other adjacent improvements. Execute demolition and abandonment so that access to facilities that are in operation and to residences and businesses is free and safe.

3. Execute pipe removal and abandonment so that interference to vehicular traffic and personnel traffic does not exceed scheduled interference. Do not place rubble, excavation, piping, or other materials removed on roadways, drives, or sidewalks that are to remain in service.

## PART 2 - PRODUCTS

### 2.1 TEMPORARY MATERIALS

- A. Provide temporary fencing, barricades, barriers, piping, valves, pumps, power and controls, and water necessary to meet the requirements of this Section.
- B. Temporary fencing, barricades, barriers, and enclosures shall be suitable to the purpose intended.

### 2.2 REPAIR AND REPLACEMENT MATERIALS

For repair or replacement of existing facilities or improvements to remain, use materials identical to, or equal to, materials used in existing work when new.

## PART 3 – EXECUTION

### 3.1 GENERAL

- A. Conduct pipe removal and abandonment as shown and specified in the Contract Documents.
- B. Conduct pipe removal and abandonment so that existing equipment, piping, wiring, structures, and other improvements to remain are not damaged. Repair or replace equipment, piping, wiring, structures, and other improvements damaged at no additional cost to the City.
- C. Do not remove equipment, piping, wiring, structures, or other improvements not shown or specified to be removed. If equipment, piping, wiring, structures, or other improvements not shown or specified to be removed is removed, replace equipment, piping, wiring, structures, or other improvements at no additional cost to the City.

### 3.2 DISCONNECTIONS

- A. Prior to starting pipe removal or abandonment, check underground and exposed existing utilities, piping, and equipment within the limits of pipe removal or abandonment. Prior to starting, check underground and exposed existing utilities, piping connected to and associated with existing pipe to be removed or abandoned. Verify the following:
  1. Piping is inactive (abandoned);
  2. Other utilities which may be in conflict have been permanently or temporarily disconnected, if required:
- B. Do not proceed with salvage or demolition if piping is active or utilities have not been disconnected.

### 3.3 ABANDONMENT

- A. The Contractor shall, as described on the Drawings and as may be directed by the City, abandon in place the following existing utility improvements:
  - 1. All water mains, reuse water mains and raw water mains that are designated to be abandoned shall be filled with grout. Refer to Section 03310 – Concrete, Masonry Mortar and Grout.
  - 2. All sewer lines, force mains, laterals and services that are designated to be abandoned shall be flushed clean and filled with grout. Prior to grout fill, sewer lines, force mains, laterals and services to be abandoned shall be flushed clean to remove wastewater and solids. Contractor is responsible for securing and providing flushing water, collection of flush water/wastewater, and disposal. The cleaning of these piping systems shall comply with all local and DEP requirements.
  - 3. Sewer manholes designated to be abandoned shall have the top two feet removed. The remainder of each manhole shall be abandoned and filled with grout or flowable fill. The excavation or pit shall be backfilled with select fill and compacted in accordance with Section 02223 – Backfilling and the trenching details on the Drawings.
- B. Appurtenances: All water hydrants, ARV valves and other appurtenances on abandoned lines shall be removed to the main and the fitting at the main shall be capped or plugged. All valves shall have the valve box, pad and operator removed, with the valve left in the open position unless specifically noted otherwise.
- C. Preparation:
  - 1. The City shall be notified at least 72 hours in advance of grouting operations.
  - 2. Bulkheads shall be spaced at intervals of not more than 1,000 feet. If the line to be abandoned is longer, bulkheads shall be inserted in the pipe to maintain the required maximum spacing between bulkheads.
  - 3. Temporary vents shall be installed in the line to be filled at a maximum spacing of 150 ft. The vents shall be capable of being capped to allow further grouting operations.
- D. Equipment:
  - 1. The materials shall be mixed or delivered in equipment of sufficient size and capacity to provide the desired amount of grout material for each stage in a single operation. The equipment shall be capable of mixing the grout at densities required for the approved procedure and shall also be capable of changing density as dictated by field conditions any time during the grouting operation.
  - 2. Mixers and Pumps - The grout shall be delivered to the injection point at a steady pressure with a non-pulsating centrifugal or triplex pump. Means shall be provided to increase or decrease the water-cement ratio. The system shall mix the grout to a homogeneous consistency. Means of accurately measuring grout component quantities, pumping pressures, and volumes pumped shall be provided.

3. Pressure Gauges - CONTRACTOR shall provide one pressure gauge at the point of injection and one pressure gauge at the grout pump. Grouting shall not proceed without appropriate calibrated gauges in place and in working order. Pressure gauges shall be equipped with diaphragm seals, have a working range between 1.5 to 2.0 times the design grout pressure, and have an accuracy within 0.5 percent of full range. Pressure gauges shall be instrument oil filled and attached to a saddle-type diaphragm seal to prevent clogging with grout.

E. Grouting:

Once grouting operations begin, grouting shall proceed uninterrupted from bulkhead to bulkhead. Grout placement shall not be terminated until both of the following conditions have been met, unless otherwise approved by the City: a) The estimated volume of grout to fill the line has been injected; and, b) grout has been expelled from the furthest vent or bulkhead. Bulkheads and temporary vents shall not be removed until the grout has set.

F. Testing and Sampling:

1. Take four test specimens for each 50 cubic yards of grout or for each four hours of placing.
2. Test in accordance with ASTM C109 except:
  - a. The specimens shall be 3 inch by 6 inch cylinders covered after casting to prevent damage and loss of moisture. Moist cure specimens for a period up to 7 days prior to a 28-day compressive strength test.
  - b. Do not oven dry specimens that are load tested. Specimens may be tested at any age to monitor compressive strength. The material may require special handling and testing techniques.

- G. The CONTRACTOR may remove the pipe in accordance with the Paragraph 3.04 in lieu of abandonment if acceptable to the City. Such removal, however, will be paid at the same price for pipe abandonment.

- H. All work under this Section shall comply with City, State and Federal regulations.

### 3.4 REMOVAL AND DISPOSAL

- A. The Contractor shall, as described on the Drawings and as may be directed by the City, remove the following existing utility improvements:

1. All water mains, reuse water mains and raw water mains that are designated to be removed.
2. All sewer lines, sewer manholes, force mains, laterals and services that are designated to be removed shall be flushed clean with water prior to removal. Contractor is responsible for securing and providing flushing water, collection of flush water/wastewater, and disposal. The cleaning of these piping systems shall comply with all local and DEP requirements.

- B. The pipe removal and disposal shall include all valves, fittings and appurtenances.

### 3.5 SALVAGE OF EQUIPMENT, PIPING, AND MATERIALS

- A. Remove items identified on the drawings or specified to remain the property of the City. Do not damage equipment, piping, and materials to be salvaged.
- B. Following removal of equipment, piping, and materials to be salvaged, place equipment, piping, and materials in a location within the City limits as designated by the City.

### 3.6 REPAIRS

Repair structural elements, equipment, piping, conduit, and other improvements to remain that are damaged during demolition. Use workers specifically qualified in trade, or trades, involved to repair damaged work.

### 3.7 DISPOSAL

- A. Remove and dispose of all equipment, piping, and materials from the jobsite not specifically designated to be retained by the City.
- B. Contractor shall not accumulate or store debris from demolition on the project site.
- C. The disposal of the piping, manholes and appurtenances shall be in accordance with City, State and Federal laws.

### 3.8 BACKFILLING

- A. Backfill excavations, trenches, and pits resulting from abandonment and removal according to Section 02223 – Backfilling.
- B. Backfill of the pipe trenches shall be according to the City details for pipe trench backfill. Pipe trenches for removed pipes that were within 3 horizontal feet of the edge of pavement shall be backfilled according to the detail for the type of roadway.

### 3.9 CLEANUP AND CLOSURE

- A. Following pipe abandonment or removal, clean-up areas where other work is to be done as specified in this Section, or Sections applicable to work to be done.
- B. Following pipe abandonment or removal, clean-up areas where no other work is to be done under this Contract. Remove debris and rubbish, temporary facilities, and equipment. Level surface irregularities to eliminate depressions. Leave work in a neat and presentable condition.
- C. In locations where a pipe to be abandoned or removed connects to a pipe that remains in service, the Contractor shall install a suitable cap or plug on the end of the active pipe.

END OF SECTION