

**THE CITY OF DAYTONA BEACH**  
**SOUTH BEACH STREET IMPROVEMENTS**  
**INVITATION TO BID No. 19263**  
**PROJECT SPECIFIC CONSTRUCTION SERVICES**  
**NIGP COMMODITY CODE(S) 91360, 91356, 91340, 91300, 91223, 91226, 91200,**  
**91359, 91360**



**THE CITY OF DAYTONA BEACH**  
**PUBLIC WORKS DEPARTMENT – TECHNICAL SERVICES DIVISION**  
**UTILITIES DEPARTMENT – UTILITIES ENGINEERING**  
**P.O. BOX 2451**  
**DAYTONA BEACH, FLA. 32115**

**ISSUE DATE: JULY 25, 2019**

ITB-Project Specific Construction 8/9/18

Bidders who wish to continue being notified of upcoming bid opportunities make sure they have registered at: <https://purchasing.codb.us> Make sure you have registered for the Commodity Code listed above to receive updates for this solicitation.

## INVITATION TO BID – PROJECT SPECIFIC CONSTRUCTION SERVICES

### The City of Daytona Beach will receive bids for SOUTH BEACH STREET IMPROVEMENTS

**Invitation to Bid No. 19263**, at the City of Daytona Beach Purchasing Division, City Hall Room 146, 301 S. Ridgewood Ave., Daytona Beach, Florida 32114, until **2:00 p.m., on August 26, 2019**, at which time bids will be opened publicly and read aloud. Bids received after said time will be returned unopened.

**Sealed bids** must be addressed to:

Joanne Flick, Purchasing Agent  
The City of Daytona Beach Purchasing Division  
301 S. Ridgewood Ave., Room 146  
Daytona Beach, Fl., 32114

with “Sealed Bid for SOUTH BEACH STREET IMPROVEMENTS, ITB No. 19263” plainly written on the outside of the envelope.

This is an all or none award, with all four sections awarded to the one lowest responsive and responsible bidder. This is being separated in the bid because each section comes from different funding sources which have to be tracked separately.

#### **Section 1: South Beach Street Force Main (6361-3)**

Consists of furnishing all coordination, labor, materials and construction services to complete the project work as noted in the Drawings. The primary work includes construction of a 36-inch DIP sanitary sewer force main, 6-inch PVC reclaimed water main and 4-inch PVC fiber-optic conduit within active City right-of-ways. This is a FDEP Cap Grant Project with a goal of five percent of the Contract Price is established for Minority Business Enterprise (MBE) participation in the Work, and a goal of five percent of the Contract Price is established for Women's Business Enterprise (WBE) participation in the Work. (Est. \$7,000,000)

**Section 2: Beach Street Backflow Preventers 2 thru 5 (6545-02)** consists of installing four (4) backflow preventers for the storm sewer systems from Loomis Avenue to Orange Avenue along Beach Street. The secondary work will include maintenance of traffic and all other ancillary construction support services including coordination with other facility and property owners within and adjacent to the project site that are affected by constructions activities and the restoration and or replacement of all improvements above, on and below ground that are disturbed by construction activities. (Est. \$341,820)

**Section 3: Sweetheart Trail, Beach Street from Bellevue Avenue to Marina Point Drive (FPN 439868-1-54-01)** consists of the construction of 12-foot wide concrete shared-use trail along the east side of Beach St from Bellevue Avenue to Marina Point Drive, approximately 1,500 LF (0.28 miles) in length. The project construction will also include lane elimination and realignment, excavation, embankment, milling and resurfacing, clearing and grubbing, signing and pavement markings, installation of curb and gutter, traffic signalization with pedestrian features, detectable warning surfaces, curb ramps, sod and drainage modification. All pedestrian facilities shall adhere to current ADA standards. Permitting and utility coordination is required. The project also includes construction of a 5-foot wide concrete sidewalk approximately 315ft in length on the west side of Beach Street between South Street and Marina Point Drive. (Est. \$564,000)

**Section 4: Sweetheart Trail, Beach Street between Marina Point Drive and Orange Avenue (FPN 439869-1-54-01)** consists of constructing approximately 2,708 LF (0.51 miles) of concrete shared use

path along the east side of Beach Street between Marina Point Drive and Orange Avenue. The project also includes a reduction in the paved roadway width of Beach Street, curb and gutter construction, drainage improvements, utility adjustments, driveway reconstruction, curb ramps with detectable warning surfaces, clearing and grubbing, sodding, roadway striping, and sign relocation. All pedestrian facilities shall adhere to current ADA standards. All proposed improvements will be constructed entirely within existing right-of-way. (Est. \$535,000)

**Bid Documents** may be obtained as pdf files on-line at <http://purchasing.codb.us>. There is no charge for downloading Bid Documents. The Bid Documents and all other Contract Documents, including Drawings and Technical Specifications if applicable, are also on file at the Daytona Beach Purchasing Division, 301 S. Ridgewood Avenue, Room 146, Daytona Beach, Florida, 32114. A complete set of these Documents may be obtained upon payment of \$75, NON-REFUNDABLE. Checks must be made payable to the City of Daytona Beach, Florida. All inquiries and checks pertaining to this project which are mailed should be directed to Post Office Box 2451, Daytona Beach, Florida 32115-2451.

**Each bid** must be accompanied by **Bid Security** in an amount not less than 10% of the total bid.

**A NON-MANDATORY PRE-PROPOSAL CONFERENCE** will be held at the Daytona Beach Public Works Conference Room, 950 Bellevue Avenue, #500, Daytona Beach, Florida 32114, on August 1, 2019 at 2:00 PM. Interested contractors are *urged* to attend.

**The successful contractor** will be required to furnish separate 100% Performance and Payment Bonds.

**The City** reserves the right to reject any and all bids, or any portion of any bid, or to waive any informalities in the bidding.

**Bids may be held** by the City for a period not to exceed 90 days from the date of opening of bids for the purpose of reviewing the bid and investigating the qualifications of bidders prior to awarding the contract.

By: KIRK ZIMMERMAN, CPPB  
CITY OF DAYTONA BEACH  
Issue Date: July 25, 2019

**SECTION 00-452**  
**CONTRACTOR'S STATEMENT OF**  
**FDOT PRE-QUALIFICATION**

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1. To be eligible to bid on this project, Bidder must be certified by the Florida Department of Transportation (FDOT) as a Pre-Qualified firm for the type of work in this project.
  - a. [http://www.fdot.gov/contracts/PreQual\\_Info/prequalified.shtm](http://www.fdot.gov/contracts/PreQual_Info/prequalified.shtm)
2. Owner will rely only on FDOT's determination of the status of a Bidder's eligibility for Pre-Qualification or any equivalent alternate certification by FDOT.
3. Bidder shall include with their bid a copy of the certificate issued by FDOT to Bidder fixing the type of work and the aggregate amount of work that the FDOT allows the Pre-Qualified bidder to have under contract at any one time.
4. All Pre-Qualified Contractors bidding on any Contract must certify their total dollar amount of Work Underway and submit a completed copy of FDOT Form 375-020-39 with their bid. This information must be equal to that submitted to FDOT during the month the bid is due. Submittal to FDOT is via the "Work Underway" link in the Contractor Pre-Qualification System website.

END OF SECTION



## **INSTRUCTIONS TO BIDDERS – PROJECT SPECIFIC CONSTRUCTION SERVICES**

**THESE INSTRUCTIONS ARE STANDARD FOR ALL BID SOLICITATIONS FOR PROJECT SPECIFIC CONSTRUCTION SERVICES ISSUED BY THE CITY OF DAYTONA BEACH. THE CITY MAY DELETE, SUPERSEDE, OR MODIFY ANY OF THESE STANDARD INSTRUCTIONS FOR A PARTICULAR SOLICITATION BY USE OF SPECIAL INSTRUCTION SHEETS.**

**1. BID DOCUMENTS.** The Bid Documents consist of the Invitation to Bid; these Instructions; Special Instructions, if any; the Bid Proposal Letter, the Bid Schedule and all other Forms to be completed, signed, and submitted by the Bidder; and all additional documents required to be completed and submitted by the Bidder as part of the Bid.

In making copies of Bid Documents available, the City does so only for the purpose of obtaining Bids and does not confer a license or grant to use the Bid Documents for any other purpose.

**2. COMPLETING THE BID.** In order for the Bid to be considered complete:

A. The Bid Proposal Letter, the Bid Schedule, and all other required Forms must be completed. All blank spaces must be filled with dark ink or via typing. All corrections and erasures must be initialed by the party submitting the Bid on behalf of the Bidder.

B. All information/documentation that is required to be submitted by this solicitation must be provided in the manner indicated.

C. The Bidder is requested to submit only the Bid Proposal Letter and other Forms, documents, and information specifically required. Any extraneous documents or information submitted by the Bidder will be discarded. The Bidder be asked to sign a written contract only if the City awards a contract to Bidder.

D. Unless Special Instructions are included in this solicitation specifically allowing for partial or lot-by-lot bids where the Bid Schedule only calls for unit prices, the Bidder must provide quotes for all unit prices and extended unit prices (if any) as set forth in the Bid Schedule. If this solicitation allows for partial or lot-by-lot bids, the Bidder must comply with the Special Instructions in completing filling out the unit prices and extended unit prices set forth in the Bid Schedule.

E. The Bid Price (including unit prices and extended prices if applicable), must be stated in numerals.

F. If this solicitation requires unit prices and there is a conflict between the unit prices and the extended totals, the unit price will take precedence. Likewise, discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

G. The Bidder must not submit alternative bids unless this solicitation specifically authorizes alternate bids. If this solicitation specifically allows the submission of alternate bids, the Bidder must submit the standard and the alternative bid in order to be considered responsive.

H. The Bid may not contain qualifications or exceptions of any kinds.

I. All other submittal requirements stated herein must be met.

**3. SIGNING THE BID.** The Bid Proposal Letter, the Bid Schedule and all other Forms and documents requiring Bidder's signature must contain the original signature of an individual authorized to bind the

Bidder. The signature must be located in the space(s) marked for the Bidder's signature. In addition, the person signing the Bid must also sign all of the other Forms to be submitted.

Electronic signatures will not be accepted.

**4. REQUESTS FOR INTERPRETATIONS.** If the Bidder is in doubt as to the meaning of any of the Bid Documents or other Contract Documents included in this solicitation, the Bidder may submit a written request to the City for an interpretation, care of the Purchasing Agent at the address set forth in the Invitation for delivery of the completed bid. Such requests must be received 10 days prior to bid opening in order to be considered. The City is not obligated to respond to such requests. Any clarification or interpretation issued by the City in the form of a written addendum will be deemed to be a part of the Bid Documents.

No oral clarification or interpretation will be binding.

**5. ADDENDA TO BID DOCUMENTS.** Prior to bid opening, the City may on the City's own initiative or in response to a request for clarification, furnish addenda for additions or alterations to these Instructions, the Bid Documents, and to any or any Drawings, Specifications, or other Contract Documents previously supplied by the City. In addition, the City may by addenda extend the date scheduled for Bid Opening.

The Purchasing Agent will make reasonable efforts to notify all potential bidders of the issuance of an Addendum. The Purchasing Agent will also post Addenda on the Purchasing Division's web page, <http://purchasing.codb.us>.

**However, the Bidder is solely responsible for ensuring that the Bid submitted reflects all such Addenda.**

**6. BID SECURITY.** The Bidder must submit Bid Security equal to 10% of the Bid. The Bid Security will be in the form of a bid bond; or any of the following alternate forms: cashier's check, certified check, money order, notes at par value, U.S. Currency, or U.S. Government Bond. Any Bid Security provided must be in original form; copies are unacceptable. The City has the right to retain the bid security as liquidated damages should the Successful Bidder fail to comply with the terms of the bid. The City will return the bid security to unsuccessful Bidders after the contract award.

Any bid bond provided must be in a form approved or provided by the City, and must be accompanied by sufficient evidence of the issuing agent's authority. The surety company executing the bond must be authorized to do business in the State of Florida. If the bid bond is in an amount greater than \$5,000.00 the surety company executing the bond is listed by the United States Treasury Department as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount.

**7. BID ENVELOPE.** The Bid, including the Bid Proposal Letter, all other required Bid documents, and required bid security, must be returned in an opaque, sealed envelope. The envelope must display the name and address of the Bidder, the bid number and name of the bid/contract as set forth on the Invitation to Bid, and the date and time scheduled for bid opening. The envelope must be addressed to:

Purchasing Agent  
City of Daytona Beach  
Room 146  
301 S. Ridgewood Avenue  
Daytona Beach, FL 32114

**8. SUBMISSION OF BID.** The Bidder must submit the Bid by mail or hand delivery at or prior to the time fixed for bid opening in the Invitation for Bids. A bid submitted after the time fixed for bid opening will not be accepted. The Bid must be delivered to the Purchasing Agent at the address above. A bid submitted to any other location will not be considered. Telephonic, electronic, and faxed bids will not be considered.

**9. AMENDMENT AND WITHDRAWAL OF BID.** The Bidder may amend or withdraw the Bid at any time prior to bid opening, but only with prior written notice to the Purchasing Agent, submitted in the same manner as the Bid. The notice must be signed by a properly authorized agent of the Bidder.

Mere negligence on the part of the Bidder in preparing the Bid does not constitute a right to withdraw the Bid subsequent to bid opening.

Amendments may be made only through the submission of a complete Bid along with a written statement, signed by the same person who signed the Bid, that the submission is intended to fully replace the Bidder's earlier submission. The City is not required to honor an amendment that fails to comply with this Paragraph 9.

**10. DISQUALIFICATION OF BIDDERS.**

A. **Only One Bid Permitted:** The Bidder may submit only one Bid. If the Bidder submits more than one bid for the work involved, all bid proposals submitted from the Bidder will be rejected.

B. **Collusion:** If the City determines that collusion exists among bidders, the City will reject the bids of all participants in the collusion.

C. **Scrutinized Companies List:** If the Bidder is found to have submitted a false certification as provided by F.S. Section 238.175(5), or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the City will have the option to immediately terminate this Contract.

**11. BID OPENING.** Bid opening will be scheduled at the location and on the date and time specified by the Invitation for Bid, or by any applicable Bid Addenda that the City may issue. At bid opening, the City will open and record the Bid so long as it is proper and has been timely submitted. In recording the Bid the City will state the name of the Bidder and the Bid Price.

The Bidder is solely responsible to ensure that the Bid is time and date stamped by the Purchasing Agent prior to bid opening. Late bids will be rejected and returned unopened.

The Bidder may be present at bid opening but is not required to be present.

**12. BID AS OFFER; FIRM PRICING; NO GUARANTEES AS TO QUANTITIES ORDERED.** In submitting the Bid, the Bidder certifies that the Bidder is making a firm offer that will remain open for 60 days following Bid Opening unless properly and timely withdrawn by the Bidder prior to Bid Opening in conformance with these Instructions unless the City, in the City's sole discretion, rejects the Bid after Bid Opening. Extensions of time beyond the 60 day-period will only be by agreement of the City, the Successful Bidder, and the surety for the Successful Bidder.

In addition, if this solicitation requests submission of unit prices: (i) all unit prices will be deemed to be held firm for the duration of the Contract, including any extension thereof, unless specifically authorized by the Contract Documents; and (ii) quantities stated are an estimate only and no guarantee is given or implied as to quantities that will actually be required during the contract period.

**13. FEDERAL TAXES.** The bid price will be exclusive of all federal taxes. If the Bidder believes that certain other taxes are properly payable by the City, the Bidder may list such taxes separately in each case directly below the respective item bid price. Tax exemption certificates will be furnished upon request.

**14. BID PRICE INCLUSIVE OF COSTS.** The Bid Price is inclusive of all of the Bidder's direct and indirect costs of performing the Work.

**15. BIDS AND PUBLIC RECORDS.** Sealed bids received by the City pursuant to this solicitation will be temporarily exempt from disclosure in accordance with Florida's Public Records Laws. Thereafter, bids will be open for inspection by any person pursuant to Public Records Law.

If the Bidder believes that the Bid or any portion thereof is permanently exempt from disclosure under the public records laws, the Bidder must state the grounds for this position in CAPITAL LETTERS on a cover sheet accompanying the sealed bid. The Bidder will be contacted prior to the opening of the Bid and a determination will be made as to whether or not it is exempt prior to opening. If a determination is made that it is not exempt from disclosure, the Bidder may in writing request the return of the sealed bid.

**16. BID OPENING RESULTS.** The Bidder may secure information pertaining to bid opening results on the Purchasing Division webpage under the "Closed Solicitations" link, by visiting the Purchasing Division Office Monday through Friday between 8:00 am and 3:00 pm, or by emailing a request to [purchasing@codb.us](mailto:purchasing@codb.us). Copies of bid tabulation sheets will be furnished upon request and receipt of a valid email address or self-addressed stamped envelope.

**17. BIDDER CAPABILITY/REFERENCES.** Prior to contract award, the City may require Bidder to show that Bidder has the necessary facilities, equipment, ability, and financial resources to perform the work specified in a satisfactory manner and within the time specified.

In addition, the City may require Bidder to demonstrate that Bidder has experience in work of the same or similar nature as the work required herein, and to provide references satisfactory to the City.

**18. REVIEW; BASIS OF AWARD.** Bids will be reviewed in accordance with the procedures set forth in these Instructions to Bidders and the applicable provisions of the Purchasing Code, Chapter 30 of the Daytona Beach Code of Ordinances. Any contract awarded pursuant to this solicitation will be made on the basis of the criteria for award of bids provided in the Purchasing Code.

A link to the Code of Ordinances is available on the City's web site, [www.codb.us](http://www.codb.us).

**19. RESERVED**

**20. IDENTICAL TIE BIDS.** If there are two or more low responsive bids from responsible bidders that are identical in price and other evaluation criteria, the tie will be awarded to the following in order of preference: a) the bidder in compliance with the drug free workplace certification requirements set forth in Florida Statutes 287.087; or b) the most responsible bidder as defined under the City Code 30-82 (9)(c).

**21. RIGHT TO ACCEPT OR REJECT BIDS.** The City will reject bids which contain modifications, qualifications, or exceptions, or which are incomplete, unbalanced, conditional, obscure, or which contain additions not requested, or irregularities of any kind, or which do not comply in every respect with these Instructions to Bidders and the Contract Documents, unless the City in its sole discretion determines that the non-compliance is minor.

The City does not bind itself to accept the minimum bid stated herein, but reserves the right to accept any bid, which in the judgment of the City will best serve the needs and interests of the City.

**22. CRA MAY AWARD PURCHASE ORDERS ISSUED PURSUANT TO CONTRACT.** In the case of a continuing/term supply or service contract awarded pursuant to this solicitation, if the funds to be used to pay for a portion of the supply or service are from redevelopment trust funds, the Community Redevelopment Agency (CRA) is authorized to issue the purchase order corresponding to the supply or service instead of the City.

**23. CITY'S PROJECT-SPECIFIC CONSTRUCTION CONTRACT FORM.** The City's contract form for project specific construction projects, which is included in this solicitation, contains additional terms and conditions, including indemnification and insurance requirements, completion deadlines, and liquidated damages, that the Bidder should review prior to submitting the Bid. The City reserves the right to make

minor changes to the form contract prior to execution by the successful bidder to correct errors, make other minor formatting changes, or for legal sufficiency. The City will provide the successful bidder the final contract for execution.

**24. LICENSES.** At time of Bid submittal, the Bidder must hold the required licensure to be the prime contractor for all work to be performed under this solicitation. Any subcontractors or sub-consultants whom the Bidder proposes to use to perform work under this solicitation must also hold the required licensure at the time of Bid submittal. Required licensure must be maintained in full force and effect during the contract term.

**25. BIDDER RESPONSIBILITY FOR PREPARATION COSTS.** Neither the City nor the City's officers or agents will be liable for the costs incurred by the Bidder in reviewing or responding to this solicitation.

**26. POST-AWARD SUBMITTAL REQUIREMENTS.** Within 15 business days after the City's issuance of a notice of award, the Successful Bidder must submit each of the following:

- A. A fully-executed contract, using the form provided with or referenced by the notice of intent to award.
- B. Proof of insurance, in accordance with the requirements of the Contract. See the Contract form for more information regarding insurance requirements.
- C. Performance Security, as further described below, in an amount equal to 100% of the Contract Price.

The award is subject to cancellation and the bid security subject to forfeiture if this deadline is not met.

**27. PERFORMANCE SECURITY.** Performance Security is required unless contract is less than \$100,000.00. Payment and performance bonds may be submitted; or an alternative form of security as specified in Florida Statutes § 255.05(7) may be provided upon the City's prior written approval.

If the Successful Bidder elects to use payment and performance bonds for required Performance Security, the Successful Bidder will use forms provided by the City. Copies of the City's current form bonds will be provided with the Notice of Award. Completed bonds must be originals, not copies, with raised corporate seals included where applicable. The bonds must be accompanied by sufficient evidence of the authority of the issuing agent, including a certified copy of the power of attorney of the person signing the bond on the surety's behalf. The surety company executing the bonds must be must be rated "A" or better by A.M. Best Key Rating Guide, authorized to do business in the State of Florida, and must be listed by the United States Treasury Department Treasury Fiscal Service, Bureau of Government Financial Operations, Federal Register, Part V, latest revision, entitled: "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount.

## **END OF INSTRUCTIONS TO BIDDERS SECTION**

# SPECIAL INSTRUCTIONS

**SI 1. PAYMENT AND PERFORMANCE BONDS.** If awarded a contract, the BIDDER will be required to provide payment and performance bonds which will each be equal to 100% of the cost of the work.

The surety company executing the bonds must be authorized to do business in the State of Florida, and must be listed by the United States Treasury Department as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount. The form of the bond must be approved by the City and must be accompanied by sufficient evidence of the authority of the issuing agent. The bonds must otherwise comply with the requirements of F.S. § 255.05.

In lieu of the required bonds, the Successful BIDDER may provide an alternative form of security as specified in F.S. § 255.05(7) upon the City's approval.

Any bonds used to comply with this Section must be in the form provided by the City; and prior to commencing construction the Successful BIDDER must have the bonds fully executed and recorded and provide the City certified copies of the recorded documents.

Upon the CONTRACTOR's (i) execution and recordation of payment and performance bonds complying with the foregoing provisions; and (ii) furnishing to the City a certified copy of the recorded bonds, proof of payment of CONTRACTOR's subcontractors and suppliers will not be required as a condition of making a required payment to CONTRACTOR; and to the extent that the General Conditions provide otherwise the General Conditions are superseded.

**SI 2. LOCAL PREFERENCE RETRACTED.** The City's local preference policy has been retracted for this project.

**SI 3. E-VERIFY**

The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

**SI 4. LIQUIDATED DAMAGES FOR FAILURE TO COMPLETE THE WORK.**

Amount of Liquidated Damages: Applicable liquidated damages are the amounts established in the following schedule:

Original Contract Amount	Daily Charge Per Calendar Day
\$5,000,000 but less than \$10,000,000	\$3,447
\$10,000,000 but less than \$15,000,000	\$4,866
\$15,000,000 but less than \$20,000,000	\$5,818
\$20,000,000 and over \$9,198 plus 0.00005 of any amount over \$20 million (Round to nearest whole dollar)	

[continued on the next page ]

**SI 5.** No funds received pursuant to this Agreement may be expended for lobbying the Florida Legislature, judicial branch or any state agency.

**SI 6. SUBSURFACE INVESTIGATION.** A soils investigation report has been prepared for the site of this work by Universal Engineering Sciences, hereinafter referred to as the Soils Engineer. A copy of the soils investigation report is included within this Project Manual as an Appendix. This report was obtained only for the ENGINEER's use in design and is not a part of the Contract Documents. The report is available for BIDDER's information, but is not a warranty of subsurface conditions.

BIDDERS should visit the site and acquaint themselves with all existing conditions. Prior to bidding, BIDDERS may make their own subsurface investigations to satisfy themselves as to site and subsurface conditions, but all such investigations shall be performed under time schedules and arrangements approved in advance by the OWNER.

**SI 7. ASBESTOS MATERIALS.** Should Asbestos Materials be found the CONTRACTOR must follow asbestos removal work in compliance with all Legal Requirements, as defined in the General Conditions, including specifically those Legal Requirements applicable to asbestos materials, including the Department of Environmental Protection's asbestos requirements, 40 CFR Part 61, Subpart M, and OSHA Section 29 CFR 1926.38. Additionally, the CONTRACTOR is responsible for properly licensed and/or certified for asbestos removal as required by Legal Requirements.

**SI 8. CONTRACTOR RESPONSIBILITIES.** The CONTRACTOR will review the site conditions, review the Bid Documents, verify the Summary of Quantities and Bid Schedule, and the inclusion of all items and costs necessary to complete the work and submit a completed and responsive Bid. In reviewing the documents, the CONTRACTOR will notify the ENGINEER of any questionable items prior to the submission of Bids. The CONTRACTOR shall maintain access to all businesses and homes along the project during construction activities.

**SI 9. MINIMUM FINANCIAL QUALIFICATIONS.** The BIDDER submitting a Bid for this project must be a Certified General CONTRACTOR and Underground Utilities CONTRACTOR, certified in the State of Florida and the City of Daytona Beach as necessary to perform the required construction and hold the following criteria:

1. Has been in business for a minimum of five (5) years.
2. BIDDER must provide documentation acceptable to the City that exhibits financial strength and ability to perform on this Contract upon request after bid opening.

**SI 10. MINIMUM CONSTRUCTION EXPERIENCE QUALIFICATIONS.** In addition to the minimum FDOT pre-qualifications, the Bid requires that the BIDDER and certain subcontractors have sufficient experience in similar construction projects. This Special Instruction sets forth certain Minimum Construction Experience Qualifications ("Minimum Qualifications") that must be met by the BIDDER, and in some instances, the BIDDER's subcontractors, and describes the reference information that the BIDDER must submit as part of the Bid to allow the City to confirm that these Minimum Qualifications are met. The imposition of the Minimum Qualifications stated herein will not be deemed to restrict the City's ability to determine whether the BIDDER is "responsible" as that term is referenced in Section 30-82(8) of Chapter 30 of the City of Daytona Beach Code of Ordinances.

1. Definitions.

"Task" means the following specific type of construction-related activity: Utilities Construction (36" Min. DIP).

2. Who Must Meet the Minimum Qualifications?

The BIDDER must meet a Minimum Qualification associated with a Task listed below, if the

BIDDER proposes to perform 50% or more of the Task through the BIDDERS' own forces for the Project, A Significant Task Subcontractor must meet a Minimum Qualification associated with a Task listed below, if the BIDDER proposes to have the Subcontractor perform 50% of the Task in the course of the Project.

### 3. What are the Minimum Qualifications?

The Minimum Qualifications are:

A. Utilities Construction: Successful completion of at least three projects totaling 6,000 linear feet or more of 36" (min.) ductile iron pipe constructed via open cut installation method. Each project will be a minimum of 2,000 linear feet of 36" (min) ductile iron pipe installed via open cut method. Utilities will include potable water, reuse water and sewer force main. Each project listed may include 1 of the 3 utilities listed in this paragraph.

B. A project will be considered counted toward meeting the applicable Minimum Qualification listed above only if, in addition the conditions referenced, both of the following conditions are met: (i) the project was undertaken, or the BIDDER's/Subcontractor's portion of the project commenced, no earlier than 2009, and (ii) the BIDDER/Subcontractor performed at least 50% of the Task described for that project. A project will be deemed "successful" only if: (i) the entire project, including the Task referenced, achieved final acceptance; or (ii) the Task referenced was deemed substantially complete (i.e., the Facility Owner accepted the equipment installed or other result of the Task for the Facility Owner's beneficial use).

A project will not be deemed to be "successful" for purposes above, even if it otherwise meets the foregoing, conditions, if any of the following occurred: (i) the BIDDER/Subcontractor was terminated from the project for cause, (ii) in association with the work listed, the BIDDER/Subcontractor received any enforcement agency warning letters, administrative fines or penalties, or the BIDDER/Subcontractor was required to pay damages by a court of law, for Occupational Safety and Health Administration (OSHA) violations in association with work; (iii) after project completion, the Facility Owner requested the BIDDER/Subcontractor to provide warranty work and the BIDDER/Subcontractor failed to provide such work to the Facility Owner's satisfaction; or (iv) the Facility Owner or the Facility Owner's contact person (listed below), for any other reason provides the City a negative reference regarding the BIDDER/Subcontractor.

### 4. What is the BIDDER Required to Provide?

To help the City determine whether the required Minimum Qualifications are met, the BIDDER must submit the following as part of the signed and sealed Bid. All documents are included at the end of this Section ("Reference Package")

A. A list of Significant Task Subcontractors, including the name of the person or firm, and the task for which the Subcontractor will act as a Significant Task Subcontractor.

B. A Reference Package. The Reference Package will contain a title page containing the CITY contract number and title as referenced in the Invitation to Bid; the name of the CONTRACTOR, followed by References for the BIDDER and the Significant Task Subcontractor. The References will be tabbed and indexed.

C. Each Project contained within the Reference Package will contain a sufficient number of references to show that the Minimum Qualification is being met. Three references must be provided to show that the Minimum Qualification for Utilities Construction is met. For each reference the following must be provided:

(i) The name and location of the project, the type of BIDDER's/Subcontractor' work on the project (with reference to the Tasks listed above), the years in which the work was performed, and a summary of any OSHA safety violations or significant injuries received by BIDDER's/Subcontractor's employees during the course of the work (significant meaning an injury resulting in the employee's missing 15 or more days of work or death).

(ii) The name and address of the Facility Owner.



(iii) At least one Contact Person for Facility Owner. The Contact Person must have sufficient knowledge of the project listed to confirm that the applicable Minimum Qualifications were met by the BIDDER/Subcontractor. The Contact Person need not to be a former or current officer or employee of the Facility owner, so long as the person represented the owner's construction management and or construction interests for project listed (such as by acting as project manager, project administrator, resident construction engineer, etc.) The Contact Person, title name of employers, and telephone number or email address (or both) must be provided. The BIDDER is encouraged to provide a backup Contact Person in each instance in case the City is unable to reach the primary Contact Person.

5. How will the city use the Information Submitted Above?

In evaluating the Bids received, the City intends to contact each reference listed (and with respect to OSHA violations, the appropriate agencies) to verify that the Minimum Qualifications were met. BIDDERS meeting the Minimum Qualifications (including with respect to their Significant Task Subcontractors) will be considered qualified to perform the work and their Bid considered responsive provided other material requirements of the Bid are met. NOTE: A BIDDER is not prohibited from listing more than the minimum number of projects to show that a specific Minimum Qualification is met (provided the BIDDER complies with the space).

SI 11. This is an all or nothing Bid award and NOT lot by lot. Award will be made to the lowest responsive and responsible bidder for the total sum of all 4 parts of this solicitation.

# SUBMITTAL CHECKLIST

The following items will be submitted with the Bid Proposal Letter. Each blank on the form will be filled out. Use NA (not applicable) rather than leaving blank.

<b>Item(s) Required with Submittal</b>	
	BID PROPOSAL LETTER
	BID SCHEDULE
	NONCOLLUSION AFFIDAVIT OF PRIME BIDDER
	DRUG-FREE WORKPLACE CERTIFICATION
	AFFIDAVIT ON PUBLIC ENTITY CRIMES
	OSHA SAFETY STANDARD CERTIFICATION
	MINORITY AND WOMEN OWNED BUSINESS ENTERPRISES CERTIFICATION FORM
	MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE OFFICER CERTIFICATION FORM
	REFERENCE PACKAGE (SECTION 1)
	Bid Security (10% for all construction bids)
<b>Label the outer most package with the following:</b>	
	Bid Number
	Date of the Opening
	Contractor Name and Address
<b>Item(s) Required after Bid Submittal</b>	
	<u>Certificate of Insurance</u> indicating the coverages outlined in this solicitation, including naming the City as additional insured ( <i>requested when Notice of Intent to Award is Issued</i> )
	Contract signed by Authorized Representative of the Vendor ( <i>completed contract sent with Notice of Intent to Award</i> )
	Payment & Performance Bonds to be returned as instructed within 15 days after the Notice of Award is issued ( <i>P &amp; P Bonds acceptable to the City will be sent with Notice of Award</i> )

**BID PROPOSAL LETTER - ITB NO.: 19443**

TO THE MAYOR AND COMMISSIONERS  
THE CITY OF DAYTONA BEACH, A FLORIDA MUNICIPAL CORPORATION

Dear Mayor and Commissioners:

This Bid is submitted by \_\_\_\_\_  
*(insert Bidder's full legal name; include D/B/A if applicable)*

Business Address: \_\_\_\_\_  
*(include P.O. Box/street address, city, state and zip code)*

Business Phone: \_\_\_\_\_ Business Fax: \_\_\_\_\_  
*(include area code) (include area code)*

Business Email: \_\_\_\_\_  
*(leave blank if n/a)*

The undersigned, as BIDDER or BIDDER's authorized representative, hereby declares and affirms each of the following:

1. That BIDDER has had the opportunity to examine the project site(s) and is fully informed in regard to all conditions pertaining to the site(s).
2. That BIDDER is fully informed regarding local conditions where the work will be required.
3. That BIDDER has thoroughly examined all Contract Documents, including Plans and Specifications as applicable, relative to the work to be performed, and that BIDDER is sufficiently knowledgeable of the work to be performed.
4. That BIDDER hereby agrees to furnish all labor, materials, and equipment to do the work in strict accordance with the Contract Documents for the price(s) stated in the attached Bid Schedule.
5. That, subject to the terms and conditions stated in the Contract Documents, BIDDER will perform the work in accordance with the completion date(s) specified in the Contract Documents, and will pay liquidated damages in the amounts specified in the Contract Documents for BIDDER's failure to comply with the completion date(s).
6. That BIDDER agrees to indemnify and hold harmless the CITY any other interests as set forth in the Contract Documents.
7. That insofar as the attached Bid Schedule includes extended unit prices, the use of extended unit quantities will not be construed to be a guarantee that the CITY will purchase such quantities if a contract is awarded; and that, subject to the terms and conditions of the Contract, BIDDER will be entitled to payment only based on the units constructed, installed, or otherwise placed in service.

**BID PROPOSAL LETTER -- ITB No.: 19443, cont.**

8. That BIDDER has received the following Addenda (*leave blank if inapplicable*):

No. \_\_\_\_\_ Dated: \_\_\_\_\_ No. \_\_\_\_\_ Dated: \_\_\_\_\_

No. \_\_\_\_\_ Dated: \_\_\_\_\_ No. \_\_\_\_\_ Dated: \_\_\_\_\_

(*list any additional Addenda by number and date*): \_\_\_\_\_

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

9. That, if within the time period specified in the bid solicitation, BIDDER fails to execute the form Contract, provide proof of insurance, and submit (if required) Performance Security, the bid award will be subject to cancellation and the Bid Security provided with this Bid will be subject to forfeiture.

10. That all information provided by BIDDER as part of this Proposal is truthful to the best of BIDDER's knowledge.

11. That BIDDER is (*mark the appropriate box and include the additional information, as applicable*):

An individual person/sole proprietor

A Florida corporation/ limited liability company

A foreign corporation/limited liability company authorized to do business in Florida\*

\_\_\_\_\_ (*specify state of incorporation/formation*)

A Florida limited partnership

A foreign limited partnership authorized to do business in Florida\*

\_\_\_\_\_ (*specify state of incorporation / formation*)

A general partnership\*\*

A joint venture\*\*\*

Other \_\_\_\_\_ (*specify, including type of entity*)

\* *Attach proof of formation/registry from State of Florida.*

\*\* *Provide on separate, signed sheets(s) of paper, full legal name and address of the partnership; and names of all general partners.*

\*\*\* *Provide on separate signed sheet(s) of paper the full legal names of all persons/firms comprising the joint venture.*

**BID PROPOSAL LETTER -- ITB NO.: 19443, CONT.**

12. That BIDDER has completed and attached all required attachments with this Bid Proposal, including Bid Schedule, Non-Collusion Affidavit, Drug Free Workplace Certification, MWBE Certifications, and Public Entity Crimes Affidavit.

In signing below, I certify that I am the above-named BIDDER or a person duly authorized by BIDDER to bind BIDDER to these terms and conditions.

By: \_\_\_\_\_  
(Signature)

Printed Name: \_\_\_\_\_

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

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

Email: \_\_\_\_\_

**BID SCHEDULE - ITB NO. 19443  
SOUTH BEACH STREET IMPROVEMENTS**

<b>SECTION 1: SOUTH BEACH STREET FORCE MAIN</b>					
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>UNIT PRICE</b>	<b>EXTENDED PRICE</b>
1-1	MOBILIZATION/DEMobilIZATION (NTE 5% OF SECTION 1 BID)	LS	1	\$	\$
1-2	MAINTENANCE OF TRAFFIC (NTE 1% OF SECTION 1 BID)	LS	1	\$	\$
1-3	SURVEY/LAYOUT, AS-BUILTS/ CERTIFIED RECORD DRAWINGS	LS	1	\$	\$
1-4	CLEARING AND GRUBBING	AC	2	\$	\$
1-5	PAVEMENT REMOVAL	SY	7,629	\$	\$
1-6	REMOVAL & DISPOSAL OF EXISTING UTILITY INFRASTRUCTURE	LF	2,056	\$	\$
1-7	REMOVAL & DISPOSAL OF EXISTING STORM STRUCTURES	EA	10	\$	\$
1-8	IRRIGATION REMOVAL AND REPLACEMENT	LS	1	\$	\$
1-9	STAKED SILT FENCE (TYPE III)	LF	8,200	\$	\$
1-10	EROSION CONTROL FOR EXISTING INLET/ PIPES	LS	1	\$	\$
1-11	TREE PROTECTION	LS	1	\$	\$
1-12	8" GREEN PVC SDR-26, ASTM D-3034 SANITARY MAIN	LF	39	\$	\$
1-13	6" GREEN PVC SDR-26, ASTM D-3034 SANITARY SERVICE	LF	66	\$	\$
1-14	36" DIP (CLASS 350) FORCEMAIN	LF	5,934	\$	\$
1-15	36" DIP (45 BEND)(CLASS 350) FORCEMAIN	EA	17	\$	\$
1-16	36" DIP (22.5 BEND)(CLASS 350) FORCEMAIN	EA	5	\$	\$
1-17	36" DIP (11.25 BEND)(CLASS 350) FORCEMAIN	EA	8	\$	\$
1-18	36" PLUG VALVE - FORCEMAIN	EA	1	\$	\$
1-19	36" HDPE DR-26 FORCEMAIN	LF	159	\$	\$
1-20	36" HDPE DR-26 (45 BEND)	EA	1	\$	\$
1-21	36" HDPE DR-26 (22.5 BEND)	EA	2	\$	\$
1-22	AIR/ VACUUM COMBINATION RELEASE VALVE (A.R.I. MODEL D-025)	EA	6	\$	\$
1-23	PULL BOX (CDR #A14-3060-36)	EA	7	\$	\$
1-24	PULL BOX (CDR #A14-3060-36)(HEAVY DUTY OR EQUAL)	EA	7	\$	\$
1-25	4" PVC CONDUIT (PVC SCHEDULE 40)	LF	6,206	\$	\$
1-26	4" PVC LONG SWEEPING 90 BENDS (SCH 40)	EA	28	\$	\$
1-27	SERVICE CONNECTIONS, UTILITY COORDINATION, ETC - SANITARY	EA	6	\$	\$
1-28	CONNECTION TO EXISTING 24" FORCEMAIN @ LIVE OAK AVE.	LS	1	\$	\$
1-29	CONNECTION TO EXISTING 36" FORCE MAIN @ SOUTH STREET	LS	1	\$	\$
1-30	CONNECTION TO EXISTING 42" SANITARY SEWER @ PLANT	LS	1	\$	\$
1-31	CLASS III REINFORCED CONCRETE PIPE				
	A. 12" RCP	LF	105	\$	\$
	B. 15" RCP	LF	63	\$	\$
	C. 18" RCP	LF	360	\$	\$
	D. 24" RCP	LF	102	\$	\$
	E. 30" RCP	LF	60	\$	\$
	F. 36" RCP	LF	96	\$	\$
1-32	PVC STORM PIPE (WHITE), SDR-26, ASTM D-3034				
	A. 4" PVC	LF	14	\$	\$
	B. 6" PVC	LF	19	\$	\$
	C. 8" PVC	LF	21	\$	\$
1-33	TYPE "E" INLET WITH STEEL GRATE	EA	1	\$	\$
1-34	TYPE "C" INLET WITH STEEL GRATE	EA	6	\$	\$
1-35	JUNCTION BOX, DRAINAGE, SPECIAL (5' X 5')	EA	1	\$	\$
1-36	JUNCTION BOX, DRAINAGE (4' DIA., 0'-6' DEEP)	EA	1	\$	\$
1-37	COUPLING - STORM				
	A. 12" RCP TO VCP	EA	2	\$	\$
	B. 12" RCP TO CMP	EA	1	\$	\$
	C. 15" RCP TO VCP	EA	1	\$	\$
	D. 18" RCP TO CMP	EA	1	\$	\$
	E. 4" PVC TO VCP	EA	1	\$	\$
	F. 6" PVC TO VCP	EA	1	\$	\$
	G. 8" PVC TO CMP	EA	1	\$	\$
1-38	6" PVC C900 WATER MAIN	LF	147	\$	\$
1-39	6" GATE VALVE WITH VALVE BOX - WATER	EA	2	\$	\$

ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED PRICE
1-40	1" WATER SERVICE - ENDOTRACE	EA	10	\$	\$
1-41	2" WATER SERVICE - ENDOTRACE	EA	6	\$	\$
1-42	CONNECTION TO EXISTING - WATER	EA	2	\$	\$
1-43	6" PVC RECLAIMED WATER MAIN (DR-18)	LF	2,330	\$	\$
1-44	6" DIP RECLAIMED WATER MAIN (CLASS 350)	LF	70	\$	\$
1-45	6" GATE VALVE WITH VALVE BOX - RECLAIMED WATER	EA	6	\$	\$
1-46	CONNECTION TO EXISTING - RECLAIMED WATER	EA	4	\$	\$
1-47	2" ASPHALT PAVEMENT	SY	7,810	\$	\$
1-48	10" RECYCLED CONCRETE BASE COURSE	SY	7,810	\$	\$
1-49	12" SUBBASE STABILIZED TO LBR-40 98% ASSHTO	SY	7,810	\$	\$
1-50	TYPE "F" CONCRETE CURB & GUTTER	LF	398	\$	\$
1-51	TYPE "D" CONCRETE CURB & GUTTER	LF	73	\$	\$
1-52	SIDEWALK REMOVAL AND REPLACEMENT (6" DEEP)	SY	36	\$	\$
1-53	CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT (6" DEEP)	SY	26	\$	\$
1-54	TRAFFIC STRIPING AND SIGNAGE	LS	1	\$	\$
1-55	PARKING AREA RESTRIPIING (INCLUDES HANDICAP SPACES)	LS	1	\$	\$
1-56	SODDING	SY	7,810	\$	\$
1-57	REMOVE & REPLACE PERMANENT FENCE	LF	900	\$	\$
1-58	REMOVE & REPLACE TRAFFIC LOOPS	EA	3	\$	\$
1-59	TEMPORARY CONSTRUCTION FENCE	LF	900	\$	\$
<b>SECTION 1 TOTAL</b>					\$

<b>SECTION 2: SOUTH BEACH STREET BACKFLOW PREVENTERS</b>					
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED PRICE
2-1	BACKFLOW REVENTER SITE 2	LS	1	\$	\$
2-2	BACKFLOW REVENTER SITE 3	LS	1	\$	\$
2-3	BACKFLOW REVENTER SITE 4	LS	1	\$	\$
2-4	BACKFLOW REVENTER SITE 5	LS	1	\$	\$
<b>SECTION 2 TOTAL</b>					\$

<b>SECTION 3: SWEETHEART TRAIL, BEACH STREET – BELLEVUE TO MARINA POINT</b>					
ITEM	DESCRIPTION	UNIT	EST QTY	BID UNIT PRICE	BID PRICE
<b>I. BASE BID</b>					
101-1	MOBILIZATION	LS	1	\$	\$
102-1	MAINTENANCE OF TRAFFIC	LS	1	\$	\$
104-10-3	SEDIMENT BARRIER	LF	696	\$	\$
104-18	INLET PROTECTION SYSTEM	EA	28	\$	\$
110-1-1	CLEARING AND GRUBBING	AC	1.268	\$	\$
110-4-10	REMOVAL OF EXISTING CONCRETE	SY	852	\$	\$
120-1	REGULAR EXCAVATION	CY	1540	\$	\$
120-6	EMBANKMENT	CY	201	\$	\$
160-4	TYPE B STABILIZATION	SY	2174	\$	\$
285-704	OPTIONAL BASE GROUP 04	SY	2174	\$	\$
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	TN	224	\$	\$
425-1203	INLETS, CURB, TYPE 9, J BOT, <10'	EA	1	\$	\$

ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	BID UNIT PRICE	BID PRICE
425-1311	INLETS, CURB, TYPE P-1, <10'	EA	1	\$	\$
425-1561	INLETS, DITCH BOTTOM, TYPE F, J BOT, <10'	EA	9	\$	\$
425-2-41	MANHOLES, P-7, <10'	EA	3	\$	\$
425-4	INLETS, ADJUST	EA	8	\$	\$
425-5	MANHOLE, ADJUST	EA	3	\$	\$
425-51	MANHOLE, ADJUST, UTILITIES	EA	2	\$	\$
425-6	VALVE BOXES, ADJUST	EA	7	\$	\$
430-174-108	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 8"SD	LF	152	\$	\$
430-174-112	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 12"SD	LF	26	\$	\$
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	626	\$	\$
520-2-4	CONCRETE CURB, TYPE D	LF	301	\$	\$
522-1	CONCRETE SIDEWALK, 4" THICK	SY	1372	\$	\$
522-2	CONCRETE DRIVEWAYS, 6" THICK	SY	657	\$	\$
527-2	DETECTABLE WARNINGS	SF	253	\$	\$
542-70	BUMPER GUARDS, CONCRETE	EA	18	\$	\$
570-1-2	PERFORMANCE TURF, SOD	SY	1712	\$	\$
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	120	\$	\$
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	\$	\$
632-7-6	SIGNAL CABLE, REMOVE- INTERSECTION	PI	1	\$	\$
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	6	\$	\$
653-1-11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	6	\$	\$
653-1-12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAYS	AS	1	\$	\$
653-1-60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL-POLE/PEDESTAL TO REMAIN	AS	4	\$	\$
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	1	\$	\$
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	8	\$	\$
665-1-60	PEDESTRIAN DETECTOR, REMOVE-POLE/PEDESTAL TO REMAIN	EA	4	\$	\$
670-5-400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	1	\$	\$
700-1-50	SINGLE POST SIGN, RELOCATED	AS	11	\$	\$
700-1-60	SINGLE POST SIGN, REMOVE	AS	1	\$	\$
710-11-101	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 6"	GM	0.121	\$	\$
710-11-123	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID FOR CROSSWALK AND ROUNDABOUT, 12"	LF	65	\$	\$
710-11-125	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID FOR STOP LINE OR CROSSWALK, 24"	LF	13	\$	\$
710-11-160	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	1	\$	\$
710-11-201	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 6"	GM	0.152	\$	\$
710-11-421	PAINTED PAVEMENT MARKINGS, STANDARD, BLUE, SOLID FOR PARKING LOT-ACCESSIBLE MARKINGS, 6"	LF	36	\$	\$
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	146	\$	\$
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	332	\$	\$



ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	BID UNIT PRICE	BID PRICE
711-11-160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	1	\$	\$
711-11-421	THERMOPLASTIC, STANDARD, BLUE, SOLID, 6"	LF	36	\$	\$
711-16-101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	0.254	\$	\$
711-16-141	THERMOPLASTIC, OTHER SURFACES, WHITE, SKIP, 6"	GM	0.010	\$	\$
711-16-201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.375	\$	\$
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS: NON-CONFLICTING ONLY	SF	2162	\$	\$
1080-21500	UTILITY FIXTURE, VALVE/METER BOX, ADJUST	EA	3	\$	\$
1644-700	FIRE HYDRANT, ADJUST & MODIFY	EA	1	\$	\$
	<b>SECTION 3 TOTAL</b>				\$

**SECTION 4: SWEETHEART TRAIL – BEACH ST (MARINA POINT TO ORANGE AVE)**

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	BID UNIT PRICE	BID PRICE
<b>I. BASE BID</b>					
101-1	MOBILIZATION	1	LS	\$	\$
102-1	MAINTENANCE OF TRAFFIC	1	LS	\$	\$
104-10-3	SEDIMENT BARRIER	683	LF	\$	\$
104-18	INLET PROTECTION SYSTEM	19	EA	\$	\$
110-1-1	CLEARING AND GRUBBING	1,359	AC	\$	\$
110-4-10	REMOVAL OF EXISTING CONCRETE	1881	SY	\$	\$
120-1	REGULAR EXCAVATION	1140	CY	\$	\$
120-6	EMBANKMENT	220	CY	\$	\$
160-4	TYPE B STABILIZATION	321	SY	\$	\$
285-704	OPTIONAL BASE GROUP 04	321	SY	\$	\$
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	28	TN	\$	\$
425-1203	INLETS, CURB, TYPE 9, J BOT, <10'	3	EA	\$	\$
425-1451	INLETS, CURB, TYPE J-5, <10'	1	EA	\$	\$
425-1563	INLETS, DITCH BOTTOM, TYPE F, J BOT, <10'	3	EA	\$	\$
425-2-41	MANHOLES, P-7, <10'	7	EA	\$	\$
425-5	MANHOLE, ADJUST	2	EA	\$	\$
425-6	VALVE BOXES, ADJUST	11	EA	\$	\$
430-174-112	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 12"SD	59	LF	\$	\$
430-174-218	PIPE CULVERT, OPTIONAL MATERIAL, OTHER SHAPE - ELLIP/ARCH, 18"SD	8	LF	\$	\$
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1273	LF	\$	\$
520-2-4	CONCRETE CURB, TYPE D	81	LF	\$	\$
522-1	CONCRETE SIDEWALK, 4" THICK	3386	SY	\$	\$
522-2	CONCRETE DRIVEWAYS, 6" THICK	303	SY	\$	\$
527-2	DETECTABLE WARNINGS	281	SF	\$	\$

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	BID UNIT PRICE	BID PRICE
570-1-2	PERFORMANCE TURF, SOD	2285	SY	\$	\$
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	36	LF	\$	\$
646-1-12	ALUMINUM SIGNALS POLE, FURNISH & INSTALL PEDESTRIAN DETECTOR POST	1	EA	\$	\$
646-1-40	ALUMINUM SIGNALS POLE, RELOCATE	2	EA	\$	\$
653-1-40	PEDESTRIAN SIGNAL, RELOCATE	2	AS	\$	\$
665-1-11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	1	EA	\$	\$
665-1-40	PEDESTRIAN DETECTOR, RELOCATE	2	EA	\$	\$
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	5	AS	\$	\$
700-1-50	SINGLE POST SIGN, RELOCATED	14	AS	\$	\$
700-1-60	SINGLE POST SIGN, REMOVE	2	AS	\$	\$
711-11-103	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR INTERCHANGE MARKINGS	0.028	GM	\$	\$
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	552	LF	\$	\$
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	342	LF	\$	\$
711-11-160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	2	EA	\$	\$
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	4	EA	\$	\$
711-16-101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	0.003	GM	\$	\$
711-16-133	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SKIP, 12"-APPROACH TO TOLL PLAZA OR 3-9 LANE DROP	0.081	GM	\$	\$
711-17	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS: NON-CONFLICTING ONLY	1068.00	SF	\$	\$
1080-15	UTILITY FIXTURES, ADJUST & MODIFY	10	EA	\$	\$
1644-700	FIRE HYDRANT, ADJUST & MODIFY	1	EA	\$	\$

**SECTION 4: TOTAL** \$ \_\_\_\_\_

**GRAND TOTAL (SECTIONS 1-4)** \$ \_\_\_\_\_

**NONCOLLUSION AFFIDAVIT OF PRIME BIDDER**

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, being first duly sworn deposes and says that:

- (1) He is \_\_\_\_\_ of \_\_\_\_\_, the Bidder that has submitted the attached Bid;
- (2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;
- (3) Such Bid is genuine and is not a collusive or sham bid;
- (4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Daytona Beach, FL (Local Public Agency) or any person interested in the proposed Contract;
- (5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

By: \_\_\_\_\_  
(Signature)  
Name Typed: \_\_\_\_\_  
Title: \_\_\_\_\_  
Bidder: \_\_\_\_\_

Subscribed and sworn to before me

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Signature of Notary Public)  
My commission expires: \_\_\_\_\_

## DRUG-FREE WORKPLACE CERTIFICATION

**IDENTICAL TIE BIDS:** - If there are two or more low responsive bids from responsible bidders that are identical in price and other evaluation criteria, the tie will be awarded to the following in order of preference: a) the bidder in compliance with the drug free workplace certification requirements set forth in Florida Statutes 287.087; or b) the most responsible bidder as defined under the City Code 30-82 (9)(c).

In order to have a drug-free workplace program, a business will:

- (1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- (2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.
- (3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in section (1), above.
- (4) In the statement specified in section (1), above, notify the employees that, as a condition of working on the commodities or contractual services that are underbid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or *nolo contendere* to, any violation occurring in the workplace no later than five days after such conviction.
- (5) Impose sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- (6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

By: \_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_  
(leave blank if sole proprietor)

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

**AFFIDAVIT ON PUBLIC ENTITY CRIMES**

(SWORN STATEMENT PURSUANT TO SECTION 287.133(3) (a), FLORIDA STATUTES)

**THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.**

This sworn statement is submitted to the City of Daytona Beach

by \_\_\_\_\_  
(insert individual's printed name and title)

for \_\_\_\_\_ whose business address  
(insert name of Bidder)

is \_\_\_\_\_

- I. I understand that a “public entity crime” as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
- II. I understand that “convicted” or “conviction” as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
- III. I understand that an “affiliate” as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
  - 1. A predecessor or successor of a person convicted of a public entity crime; or
  - 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term “affiliate” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm’s length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- IV. I understand that a “person” as defined in Paragraph 287.133(1)(e), **Florida Statutes**, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term “person” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

V. Based on information and belief, THE STATEMENT WHICH I HAVE MARKED BELOW is true in relation to the entity submitting this sworn statement (*Place initial of check mark next to applicable statement*):

\_\_\_ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

\_\_\_ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

\_\_\_ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (Attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

\_\_\_\_\_  
(Signature) (Date)

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ )

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

\_\_\_\_\_ who, after first being sworn by me, affixed his/her signature  
(Name of individual signing)

in the space provided above on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Attest: \_\_\_\_\_  
(Notary Public)

My commission expires: \_\_\_\_\_

(Notary Seal)

## OSHA SAFETY STANDARD CERTIFICATION

The Bidder will comply with the Occupational Safety and Health Administration's (OSHA) Excavation Safety Standard, 29 C.F.R.s 1926.650 Sub Part P. and Chapter 90-96 Florida Statutes.

Name of Bidder: \_\_\_\_\_

\_\_\_\_\_  
Signature

Name Typed: \_\_\_\_\_

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

The Bidder further certifies that the cost (which is included in his unit cost) of compliance with OSHA Safety Standard is as follows:

(i)	<b><u>No. of Units</u></b>	<b><u>Unit of Measure</u></b>	<b><u>Unit Cost</u></b>	<b><u>Total</u></b>
1. Trench Excavation		L.F.	\$	\$
2. Sheeting/Shoring		S.F.	\$	\$

Bidder: \_\_\_\_\_

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

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

Name Typed: \_\_\_\_\_

**MINORITY AND WOMEN OWNED BUSINESS ENTERPRISES  
CERTIFICATION FORM**

The Bidder hereby certifies that in accordance with applicable provisions of the Daytona Beach Purchasing Code, Chapter 30, Daytona Beach Code of Ordinances, a good faith effort has been made to contact the following minority and women owned business enterprises:

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*(Use separate sheet if additional space is needed. If separate sheet is used, include a reference to this form, and sign and date the sheet).*

SIGNATURE: \_\_\_\_\_

NAME TYPED: \_\_\_\_\_

TITLE: \_\_\_\_\_

The Bidder further certifies that of the minority and women owned business enterprises contacted, he was unable through a good faith effort to obtain any minority or women owned business enterprise to work on this project.

SIGNATURE: \_\_\_\_\_

NAME TYPED: \_\_\_\_\_

TITLE: \_\_\_\_\_



**MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE OFFICER  
CERTIFICATION FORM**

I, \_\_\_\_\_,  
Name of Executive Officer  
certify that \_\_\_\_\_  
Name of MBE Officer

has been named Minority and Women Owned Business Enterprise Officer for

\_\_\_\_\_  
\_\_\_\_\_  
 Company       Corporation

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

By: \_\_\_\_\_

Name Typed: \_\_\_\_\_

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

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

\_\_\_\_\_

**DRAFT  
PROJECT-SPECIFIC CONSTRUCTION CONTRACT  
ITB 19443**

THE PARTIES TO THIS CONTRACT are the City of Daytona Beach, a Florida municipal corporation, hereinafter the "CITY" or "OWNER," and >, a >, hereinafter the "CONTRACTOR."

WITNESSETH, that the CONTRACTOR and the CITY agree as follows, for the mutual valuable consideration provided herein:

**ARTICLE I. SCOPE OF WORK**

The CONTRACTOR will, at its sole cost and expense, provide, perform, and complete the construction project commonly known as SOUTH BEACH STREET IMPROVEMENTS and more fully described in the Contract Documents, hereinafter the "Work".

**ARTICLE II. CONTRACT DOCUMENTS**

The Contract Documents are further described in the General Conditions, and if applicable the Supplemental General Conditions. In addition, the Plans,

	<u>Engineer of Record</u>	<u>Date</u>
SECTION 1-FORCE MAIN	Haluk Kilic P.E.	>
SECTION 2-BACKFLOW PREVENTER	Timothy B. Walsh P.E.	>
SECTION 3-SHT BELLEVUE TO MARINA POINT	Michael S. Repsch P.E.	>
SECTION 4-SHT MARINA POINT TO ORANGE	Michael S. Repsch P.E.	>

provided or made available with the CITY's Invitation to Bid, as amended by any addenda to the bid documents, are a part of the Contract Documents. These Plans are not physically attached hereto but are incorporated herein by reference. CONTRACTOR acknowledges receipt of all such Plans.

The Contract Documents are intended to include all information necessary for CONTRACTOR's proper prosecution and timely completion of the Work. CONTRACTOR will prosecute the Work as necessary to produce the results indicated by the Contract Documents. The Contract Documents are complementary, and what is required by one will be as binding as if required by all.

**ARTICLE III. COMMENCEMENT AND COMPLETION**

The CITY and the CONTRACTOR mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents. To that end, the CONTRACTOR will commence the Work not later than the Commencement Date set forth in the General Conditions, and will diligently and continuously prosecute the Work at such a rate, and with sufficient forces as will allow the CONTRACTOR to achieve Substantial Completion within **450** days after the Commencement Date and Final Completion within **90** days after Substantial Completion, subject only to any adjustments in the Contract Time that may be authorized by Change Orders properly issued in accordance with the Contract Documents. In executing this Contract, CONTRACTOR affirms that the time set for completion is reasonable.

The CITY will suffer financial loss if Final Completion of the Work is not achieved within the Contract Time. Accordingly, and in lieu of actual damages or proof thereof, if CONTRACTOR

fails to meet these deadlines, CONTRACTOR will be liable to the CITY for liquidated damages as follows:

In the amount of **\$3447** for each and every day of unexcused delay in achieving Substantial Completion; and

In the amount of **\$1723.50** for each and every day of unexcused delay from the date that Substantial Completion is achieved until Final Completion is achieved.

The CITY will have the right to offset such liquidated damages against any remaining portion of the Contract Price due CONTRACTOR, but will not be limited to the offset if it is insufficient. If the unpaid balance of the Contract Price is less than the amount of the Liquidated Damages, the CONTRACTOR or its Surety must pay the deficiency to the CITY upon demand.

#### **ARTICLE IV. CONTRACT PRICE**

Subject to any adjustments that may be authorized pursuant to this Contract, the Contract Price due the CONTRACTOR is \$>\_\_\_\_\_ for work completed and accepted in accordance with the Contract Documents. The Contract Price represents the CONTRACTOR's sole compensation from the CITY for prosecution of the Work. The Contract Price will be paid in a series of Progress Payments and a Final Payment, and is subject to retainage, as further described in the Contract Documents.

#### **ARTICLE V. PERFORMANCE SECURITY**

CONTRACTOR must provide a payment bond and a performance bond, or alternate form of Performance Security in an amount equal to 100% of the Contract Price if the contract price exceeds \$100,000.00.

Additional requirements associated with the provision of Performance Security, including requirements to increase the amount provided, are set forth in the General Conditions and, if applicable, the Supplemental General Conditions.

#### **ARTICLE VI. INDEMNIFICATION**

A. To the fullest extent permitted by law, CONTRACTOR will indemnify and hold harmless the CITY and the State of Florida, Department of Transportation, including the Department's officers and employees, from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness or intentional wrongful misconduct of CONTRACTOR and persons employed or utilized by CONTRACTOR in the performance of this Contract. This indemnification will survive the termination of this Contract. Nothing contained in this paragraph is intended to, nor shall it constitute, a waiver of the State of Florida and the CITY's sovereign immunity.

B. CONTRACTOR indemnifies the CITY against any claim of supplier's or subcontractor's lien (in cases where such payment is not already guaranteed by payment bond). If any claim or lien remains unsatisfied after all payments are made, CONTRACTOR must refund to the CITY all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

C. For purposes of the obligations stated in this Article, references to the CITY include the CITY's officers, employees, and agents.

D. CONTRACTOR's obligations under this Article are made without regard to the availability of insurance of the CITY or the Engineer/Architect.

## ARTICLE VII. INSURANCE

### A. Required Insurance.

CONTRACTOR will purchase and maintain, at its own expense, the following types and amounts of insurance, primary and non-contributory with the CITY's own insurance, in form and companies satisfactory to the CITY:

1. **Workers' Compensation Insurance** – As required by Florida Statutes, Chapter 440, Workers' Compensation Insurance, for all employees of CONTRACTOR employed at the project site or in any way connected with the Work.

The insurance required by this provision will comply fully with the Florida Workers' Compensation Law and include Employers' Liability Insurance with limits of not less than \$500,000 per accident. Any associated or subsidiary company involved in the service must be named in the Workers' Compensation coverage.

2. **Liability insurance – Including Commercial General Liability coverage** for operations, independent contractors, products-completed operations, broad form property damage, collapse and underground, and personal injury on an "occurrence" basis, insuring the CONTRACTOR and any other interests, including but not limited to any associated or subsidiary companies involved in the Work; and **Automobile Liability coverage** insuring claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle used by CONTRACTOR at the project site or in any way connected with the Work.

THE COMMERCIAL GENERAL LIABILITY INSURANCE POLICY WILL NAME THE CITY AS AN ADDITIONAL INSURED. CONTRACTOR'S Commercial General Liability insurance policy shall provide coverage to CONTRACTOR, and CITY when required to be named as an additional insured either by endorsement or pursuant to a blanket additional insured endorsement, for those sources of liability which would be covered by the latest edition of the standard Commercial General Liability Coverage Form (ISO Form CG 00 01) without the attachment of any endorsements excluding or limiting coverage for Products/Completed Operations, Independent Contractors, Property of CITY in Contractor's Care, Custody or Control or Property of CITY on which contracted operations are being performed, Explosion, Collapse or Underground hazards (XCU Coverage, Contractual Liability or Separation of Insureds). When CITY is added as additional insured by endorsement, ISO Endorsements CG 20 10 and CG 20 37 or their equivalent shall be used to provide such Additional Insured status.

The limit of liability will be a combined single limit for bodily injury and property damage of no less than \$1,000,000 per occurrence. If insurance is provided with a general aggregate, the aggregate will be in an amount of no less than \$2,000,000. The Risk Manager may

authorize lower liability limits for the automobile policy only, at the Risk Manager's sole discretion.

Unless specifically waived hereafter in writing by the Risk Manager, CONTRACTOR agrees that the insurer will waive its rights of subrogation, if any, against the CITY on of the above-listed types of required insurance coverage.

3. **Builders' Risk** - The CONTRACTOR is required to maintain Builders Risk Insurance on an "all risk" basis, including but not limited to the completed value basis on the insurable portion of the work for the benefit of the CITY, the CONTRACTOR and subcontractors as their interests may appear. The CITY, the CONTRACTOR and any subcontractor insured therein waive all rights against each other for damages caused by fire and other perils to the extent covered by the insurance obtained pursuant to this paragraph.

**B. Subcontractors' Insurance.** Each of CONTRACTOR's subcontractors will be required to provide insurance in substantially similar form to the insurance required of CONTRACTOR above based on the services they will provide to the project.

**C. Proof of Insurance.** CONTRACTOR will furnish proof of insurance acceptable to the CITY prior to or at the time of execution of this Contract. CONTRACTOR will not commence Work until all required insurance has been approved by the CITY. CONTRACTOR will furnish evidence of all required insurance in the form of certificates of insurance which will clearly outline all hazards covered as itemized above, the amounts of insurance applicable to each hazard and the expiration dates.

Upon request of the Risk Manager, CONTRACTOR will also provide the CITY copies of the insurance contracts referenced by the certificates.

**D. Cancellation and Replacement.** CONTRACTOR will file replacement certificates 30 days prior to expiration or termination of any required insurance occurring prior to expiration or termination of this Contract. If such insurance terminates without CONTRACTOR's prior knowledge, immediately upon becoming aware of such termination CONTRACTOR will provide notice to the City's Risk Manager at P.O. Box 2451, Daytona Beach, Florida 32115-2451.

The CITY reserves the right to suspend any or all of the Work until such insurance has been replaced, or to obtain replacement insurance at CONTRACTOR's sole cost.

**E. Termination of Insurance.** CONTRACTOR will not cancel any required insurance coverage until the work is completed, accepted by the CITY and CONTRACTOR has received written notification from the Risk Manager that CONTRACTOR is authorized to cancel the insurance and the effective date of such authorization. The Risk Manager will provide such written notification at the request of CONTRACTOR if the request is made no earlier than two weeks before the work is to be completed.

The liabilities of CONTRACTOR under this Contract will survive and not be terminated, reduced, or otherwise limited by any expiration or termination of insurance coverage. Neither approval nor failure to disapprove insurance furnished by the contractor will relieve the CONTRACTOR or its sub-contractors from responsibility to provide insurance as required by the contract.

## ARTICLE VIII. NOTICES

A. Where the Contract Documents authorize or require the CITY to provide notice to CONTRACTOR, notice may be provided by delivery by hand to CONTRACTOR's designated Superintendent at the Project Site, or in the absence or unavailability of the Superintendent to any other person on the Project Site who holds himself or herself out as managing the Work on behalf of CONTRACTOR, or in lieu of either of these, by written notice to the address provided below.

B. Where the Contract Documents authorize or require CONTRACTOR to provide notice to the CITY, notice may be provided only by written notice to the address provided below.

C. Written notice is valid only if sent by certified United States mail, return receipt requested, facsimile with confirmation receipt required, or by recognized courier such as Federal Express with confirmation receipt requested. All such notices will be deemed to have been duly given and provided on (i) the date of receipt, (ii) upon receipt or refusal of delivery if transmitted by registered or certified mail, return receipt requested, or (iii) the first business day after the date of deposit, if transmitted by reputable overnight courier service, whichever occurs first. Written notices will be sent to the following persons:

If to the CONTRACTOR:

Attn: >

>Contractor's Name

>[insert street address, not PO Box]

> [City, ST, Zip]

Fax: >

If to the CITY:

**For Force Main Improvements & Backflow Preventer Portion:**

Attn: Shannon Ponitz, Utilities Director

The City of Daytona Beach

125 Basin Street, Suite 204

Daytona Beach, FL 32114

Fax: 386-671-8805

**For Sweetheart Trail Portions:**

Attn: Frank Van Pelt, Technical Services Director

The City of Daytona Beach

950 Bellevue Avenue, Suite 600

Daytona Beach, FL 32114

Fax: 386-671-8620

provided, however, that either Party may by written notice change the address designated for receipt of written and faxed notices.

## ARTICLE IX. DISPUTE RESOLUTION

If a dispute exists concerning this Contract, the Parties agree to use the following procedure prior to pursuing any judicial remedies.

A. **Negotiations Required.** A Party will request in writing that a meeting be held between representatives of each Party within 14 days of the request or such later date that the Parties may agree to. Each Party will attend and will include, at a minimum, a senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization. The purpose of this meeting is to negotiate the matters constituting the dispute in good faith. The Parties may mutually agree in writing to waive this step and proceed directly to mediation as described below.

B. **Non-Binding Mediation.** Mediation is a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them. Within 30 days after the procedure described above proves unsuccessful or the Parties mutually waive the procedure, the Parties will submit to a non-binding mediation. The mediation, at a minimum, will provide for (i) conducting an on-site investigation, if appropriate, by the mediator for fact gathering purposes, (ii) a meeting of all Parties for the exchange of points of view and (iii) separate meetings between the mediator and each Party to the dispute for the formulation of resolution alternatives. The Parties will select a mediator trained in mediation skills and certified to mediate by the Florida Bar, to assist with resolution of the dispute. The Parties will act in good faith in the selection of the mediator and give consideration to qualified individuals nominated to act as mediator. Nothing in this Contract prevents the Parties from relying on the skills of a person who also is trained in the subject matter of the dispute or a contract interpretation expert. Each Party will attend and will include, at a minimum, a senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization.

If the Parties fail to reach a resolution of the dispute through mediation, then the Parties are released to pursue any judicial remedies available to them.

## ARTICLE X. GENERAL PROVISIONS

A. This Contract will be governed by the laws of the state of Florida without regard to any choice of law principles that could result in application of the laws of any other jurisdiction. Venue for any legal action or proceeding arising out of this Contract is exclusively in the federal or state courts in and for Volusia County, Florida. The Parties hereby waive any right to stay or dismiss any action or proceeding brought under or in connection with this Contract that is brought before the above-referenced courts on the basis of *forum non-conveniens*.

B. In case of litigation arising out of this Contract where the meaning of one or more provisions is at issue, the CITY will not be penalized by virtue of its having drafted this Contract. CONTRACTOR has carefully reviewed and had the opportunity to seek advice of legal counsel prior to executing this Contract.

C. The CITY and CONTRACTOR agree that they have knowingly waived the right to trial by jury and have instead agreed that, in the event of any litigation arising out of or connected to this Contract, to proceed with a trial before the court, unless both parties subsequently agree otherwise in writing.

D. In performing the services provided for herein, CONTRACTOR is an independent contractor and not an employee of the CITY.

E. The waiver of any provision of this Contract will not be deemed to be a waiver of any other provision of this Contract. No waiver of any provision of this Contract will be deemed to constitute a continuing waiver unless expressly provided in writing, nor will a waiver of any default be deemed a waiver of any subsequent defaults of the same type. The failure at any time to enforce this Contract, whether the default is known or not, does not constitute a waiver or estoppel of the right to do so.

F. All terms and conditions of this Contract which contemplate a period of time beyond completion or termination, will survive such completion or termination and not be merged therein or otherwise terminated.

G. If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding will only effect such word, phrase, clause, sentence or provision, and such finding will not affect the remaining portions of this Contract; this being the intent of the Parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.

H. The undersigned representative of CONTRACTOR affirms that in executing this Contract on behalf of CONTRACTOR, he or she is fully authorized to bind CONTRACTOR to the terms and conditions herein set forth.

I. No CITY officer, employee, or independent consultant who is involved in the development, evaluation, or decision-making process of the performance of any solicitation will have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any violation of this provision, with the knowledge, expressed or implied, of CONTRACTOR will render the Contract voidable by the CITY.

[remainder of this page intentionally left blank]



J. This Contract represents the entire and integrated agreement between the CITY and CONTRACTOR with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral.

IN WITNESS WHEREOF, the Parties have executed this Contract on the dates written below.

**THE CITY OF DAYTONA BEACH**

**CONTRACTOR**

By: \_\_\_\_\_  
Derrick L. Henry, Mayor

By: \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Attest: \_\_\_\_\_  
Letitia LaMagna, City Clerk

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

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

Approved as to legal form:

By: \_\_\_\_\_  
Robert Jagger, City Attorney

# GENERAL CONDITIONS

## ARTICLE 1 – DEFINITIONS AND TERMS

### 1.1 Defined Terms.

Whenever used in the Contract the following terms have the meanings indicated, which are applicable to both the singular and plural thereof

*“50-Percent Completion”* means the point at which the OWNER has expended 50% of the Adjusted Contract Price.

*“Adjusted Contract Price”* means the Contract Price as set forth in the Contract, as previously adjusted by valid Change Order.

*“Bid”* means the offer of the Bidder.

*“Bid Schedule”* means the Bid Schedule submitted by CONTRACTOR with the Bid; unless CONTRACTOR was the sole responsive bidder and the Parties have negotiated final pricing as part of the bid solicitation process pursuant to the Purchasing Code, in which instance the term means the Revised Bid Schedule included within the Contract Documents.

*“Change Instrument”* means a Field Directive or a Change Order.

*“Change Order”* means a written directive issued by the OWNER authorizing an adjustment in the Contract Price, the Contract Time, the scope of Work, or any other material term or condition of the Contract. When approved by the City Commission, a change order may be in the form of a formal amendment to this Contract.

*“City Code”* means the City of Daytona Beach Code of Ordinances.

*“City Commission”* or *“Commission”* means the City of Daytona Beach City Commission.

*“City Manager”* means the City Manager for the City.

*“Commencement Date”* means the date established in the Notice to Proceed upon which the Contract Time begins to run; or if no such date is provided in the Notice to Proceed, the date of the Notice to Proceed.

*“Construction Contract form”* means that part of the titled as “Project-Specific Construction Contract” or something similar, and signed by the Parties.

*“Contract”* includes all Contract Documents.

*“Contract Administrator”* means the individual specifically authorized to administer the Contract on the OWNER’s behalf; provided, however that in all instances the City Manager may act as the Contract Administrator.

*“Contract Price”* means the total compensation due to CONTRACTOR for the Work to be performed under the contract, subject only to those adjustments provided in the Contract Documents.

*“Contract Time”* means the total period of time stated in the Contract between the Commencement Date and the deadline for Final Completion, subject only to those adjustments provided in the Contract Documents.

*“Critical Path”* means the longest series of tasks that runs consecutively from the beginning to the end of the Project, as determined by duration and workflow sequence. This longest path sets the managerial standard for how quickly the Project can be completed, given appropriate resources.

“Day” or “Days” means calendar days unless otherwise specifically noted in the Contract Documents.

“Defective Work” or “Nonconforming Work” means Work that:

- (i) Does not conform to the requirements of the Contract;
- (ii) Does not meet the requirements of any inspection, test, or approval as referred to in the Contract or as required by law;
- (iii) Contains defects;
- (iv) Represents a substitute for that required by the Technical Provisions, unless properly approved and authorized as provided in the Contract; or
- (v) Has been damaged or destroyed prior to Final Completion.

“Effective Date” means the date on which this Contract is approved by City Commission.

“E/A” (also, “Engineer/Architect”, “Architect, or “Engineer” as applicable ) generally means the professional licensed architect or engineer who develops the criteria and concept for the Project, performs the analysis, and is responsible for the preparation of the Technical Provisions and Plans. The E/A may be the OWNER’s in-house staff or a consultant retained by the OWNER. No contractual relationship is created by this Contract between CONTRACTOR and the E/A.

“Equipment” means the machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the Work.

“Field Directive” means a written order prepared and signed by the OWNER, not involving a change in Contract Price or Contract Time, directing a minor change in the Work where a Change Order is not required.

“Final Completion” means acceptance of the Work by the OWNER as evidenced by its signature upon the Certificate of Final Completion.

“Force Account” means a method for payment of additional Work that is based on CONTRACTOR’s labor, equipment and materials costs with consideration for overhead and profit.

“Force Majeure Event” means conditions or other circumstances, such as acts of God, that: (i) were not foreseen, and could not have been reasonably foreseen, by CONTRACTOR or the OWNER, (ii) are beyond the control of CONTRACTOR and the OWNER, and (iii) materially hinder or interfere with the ability of CONTRACTOR to prosecute the Work; provided, however, that no such condition or circumstance will be a Force Majeure event if it is the result of CONTRACTOR’s fault, negligence, or material breach of this Contract. Examples of Force Majeure events include wars, floods, strikes and labor disputes, unusual delay in transportation, epidemics abroad, earthquakes, and severe adverse weather conditions not reasonably anticipated.

“Hazardous Materials” has the meaning as provided by law.

“Legal Requirements” means, collectively, all applicable federal, state, and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work. The term includes the City Code and other CITY ordinances and regulations.

“Materials” means goods or substances to be incorporated in the Work under the Contract.

“Milestone” means a significant event specified in the Contract Documents relating to an intermediate completion date or time prior to Final Completion of the Work.

“OWNER” means the City of Daytona Beach; or, if the form Contract so provides, the Community Redevelopment Agency for the CITY. All references within the Technical Provisions to the “CITY” (whether or not capitalized) are intended to refer to the “OWNER” unless logic dictates otherwise.

“Plans” means the plan documents prepared by the E/A and identified in the Table of Contents or otherwise incorporated into the Contract, including reproductions thereof, showing the location, character, dimensions, and details of the Work. The term may also be referred to herein as “drawings,” “contract drawings,” “contract plans,” or similar terms; but not “shop drawings.”

“Project” means the subject of the Work and its intended result.

“Project Site” or “Site” means the land or premises on which the Project is located, and in addition any land and areas identified in and permitted for use by CONTRACTOR by the Contract, subject to conditions that may apply such as for rights-of-way, permits, and easements.

“The Prompt Payment Act” means the Local Government Prompt Payment Act, F.S. § 218.70 et seq. (2014), as hereafter amended.

“Purchasing Code” means the provisions of Chapter 30 of the City Code.

“Referenced Standards” includes standards, standard details, specifications, manuals, regulations or codes of any technical society, organization or association, or of any governmental or quasi-governmental authority referred to in the Contract to describe the nature or quality of any of the Work, whether such reference be specific or by implication, and means the latest standard, standard detail, specification, manual, regulation or code in effect at the time of Bid opening, except as may be otherwise specifically stated in the Contract.

“Resident Project Representative” means, where the E/A is a private firm or person under contract with the CITY to act as the E/A, the authorized representative of E/A assigned to the Project Site; and in all other instances, the Contract Administrator.

“Risk Manager” means the Risk Manager for the CITY or designee; provided however, that the City Manager may act on behalf of the Risk Manager.

“Schedule of Values” means the written breakdown of the Contract Price by Construction Specification Institute divisions or by other format acceptable to the OWNER, prepared by CONTRACTOR for OWNER’s review and approval.

“Shop Drawings” means all drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR as required by this Contract.

“Site-Related Reports” means any environmental, geotechnical, subsoil, and related reports relating to conditions at the Project Site which were used or made available for the OWNER’s or E/A’s use in creating the Plans.

“Specifications” means the Technical Provisions and Plans.

“Stored Materials” means delivered materials or equipment that are located at the Project Site, or with the OWNER’s approval at another location, and that have not yet been incorporated into the Work.

“Subcontractor” means a person or firm that under a direct contract with CONTRACTOR to perform a portion of the Work, and also unless logic dictates otherwise, sub-subcontractors and persons or firms doing work through such sub-subcontractors.

“Substantial Completion” means the completion of the Work, or an agreed upon portion of the Work, so as to allow the OWNER to occupy and use the Project or a portion thereof for its intended purposes.

“*Sub-subcontractor*” means a person or firm who has a direct or indirect contract at any tier with a subcontractor to perform a portion of the Work.

“*Supplemental General Conditions*” means that part of the Contract labeled as such and identified in the Table of Contents or otherwise incorporated into the Contract, that amends and supplements these General Conditions.

“*Supplier*” means a person or firm having a contract with CONTRACTOR or with any subcontractor of any tier to furnish materials to be incorporated in the Work.

“*Technical Provisions*” means those provisions of the Contract containing or referencing required technical specifications and standards. The term includes all such technical specifications and standards of other governmental jurisdictions, or professional association where referenced in the Contract, including any exceptions thereto regardless of whether these are attached to or enumerated within the Contract.

Whenever this Contract refers to but does not include a specific Technical Provision, the reference will be deemed to be to the version of the referenced Technical Provision included in the applicable CITY engineering or utility standard unless logic dictates otherwise.

“*Unilateral Change Instrument*” means a Change Instrument issued by the OWNER and not executed by CONTRACTOR.

“*Unit Price Schedule*” means the Bid Schedule.

“*Working Hours*” means 7:00 am through 6:00 pm, Monday through Friday excluding holidays designated by the CITY.

**1.2 Abbreviations.** The following abbreviations, when used in the Contract, represent the full text shown.

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects.
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
DIPRA	Ductile Iron Pipe Research Association
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
FDHR	Florida Division of Historical Resources
FEMA	Federal Emergency Management Agency
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards

IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IFAS	Institute of Food and Agricultural Sciences
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
ISA	International Society of Arboriculture
ISO	International Organization for Standards
MPO	Volusia County Metropolitan Planning Organization
MSTCSD	Minimum Specifications for Traffic Control Signals and Devices
MUTCD	Manual on Uniform Traffic Control Devices
NACE	National Association of Corrosion Engineers
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute for Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NSPE	National Society of Professional Engineers
OSHA	Occupational Safety and Health Administration
SAE	Society of Automotive Engineers
SJWRMD	St. Johns River Water Management District
SI	International System of Units
SSPC	Society of Protective Coatings
UL	Underwriters' Laboratories
USACOE	United States Army Corps of Engineers
USGS	United States Geological Service

Each of the above abbreviations, when followed by a number or letter designation, or combination of numbers and letters, designates a specification, test method, or other code or recommendation of the particular authority or organization shown. Where the above-referenced abbreviations refer to a written standard, specifications, test method, or other code, the reference will be deemed to be the edition of the code promulgated at the time of Bid opening.

**1.3 Use of Terms.**

**1.3.1 Singular and Plural.** The OWNER, E/A, CONTRACTOR, subcontractor, sub-subcontractor, supplier, other contractors, surety, insurer and others may be referred to in the Contract Documents as if singular in number. In the event that more than one person or entity occupies the position referred to and unless otherwise indicated, the term is interpreted to include all such persons or entities.

**1.3.2 Technical Terms and Trade Usage.** Terms in the Contract which have well-known technical or construction industry meanings and are not otherwise defined are used in accordance with such recognized meanings unless the context clearly indicates otherwise.

**ARTICLE 2 –ORGANIZATION AND INTENT OF CONTRACT**

**2.1 Interpreting the Contract.**

**2.1.1 Order of Precedence.** In cases of conflict or discrepancy among Contract Documents, interpretations will generally be based on the following order of precedence, ranked from highest to lowest priority:

- .1 Change Orders;
- .2 The Construction Contract form;
- .3 Supplemental General Conditions, if any;
- .4 General Conditions;

- .5 Technical Provisions;
- .6 Plans (figured dimensions will govern over scaled dimensions);
- .7 The Invitation to Bid and General and Supplemental Instructions to Bidders, including Addenda thereto;
- .8 The Bid Schedule;
- .9 All other documents required to be submitted and submitted as part of CONTRACTOR's Bid Proposal; and
- .10 All other Contract Documents that are neither listed above nor expressly incorporated into one of the foregoing Contract Documents;

with the understanding that a common sense approach will be used as necessary so that the Contract Documents produce the intended response.

**2.1.2 Contract Documents Complementary.** The Contract Documents are complementary, and what is required by one is as binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, are of like effect as if shown or mentioned in both.

**2.1.3 Intent to Require Completed Project.** The intent of the Contract Documents is to require that CONTRACTOR provide all materials and labor, including tools, equipment and supervision, necessary for the proper execution and completion of the Work as a functioning whole or required for a completed Project.

**2.1.4 Work Required if Reasonably Inferable.** Performance by CONTRACTOR is required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. Where no explicit quality or standards for materials or workmanship are established for the Work, the Work is to be of good quality for the intended use and consistent with the quality of surrounding Work which conforms to the requirements of the Contract Documents and to the standards for construction of the Project generally.

**2.1.5 Organization of Drawings and Specifications.** Organization of the Drawings around professional disciplines such as civil, architectural, structural, plumbing, mechanical, and electrical, and of the Specifications into divisions, sections, and articles, does not control CONTRACTOR in dividing the Work among sub-contractors or in establishing the extent of Work to be performed by any trade or excuse CONTRACTOR of its obligation to properly allocate and provide for the performance of all Work under the Contract.

**2.1.6 Documents Excluded from the Contract.** The Contract Documents do not include the Site-Related Reports referenced herein or other documents issued or provided to CONTRACTOR for the information of CONTRACTOR or for reference purposes and which are not specifically incorporated in the Contract Documents.

**2.1.7 Titles, Headings, and Capitalization.** The titles and headings of the various sections and subsections of these General Conditions and other Contract Documents are intended only as a matter of reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents. The use, or inadvertent failure to use, capitalization of terms used in the Contract Documents is not intended to define or limit the meaning of the term.

**2.1.8 Other Interpretive Rules.**

**2.1.8.1** Provisions of the Contract Documents that use the active voice-imperative mood writing style are directions to CONTRACTOR and are intended as commands. In such instance, the subject "the Bidder" or "CONTRACTOR" is understood.

**2.1.8.2** Provisions of the Contract Documents that use the passive voice writing style are also directions to CONTRACTOR and intended as commands unless logic clearly dictates otherwise.

**2.1.8.3** Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

## **2.2 Referenced Standards.**

**2.2.1 Standards Incorporated.** All Referenced Standards are incorporated into the Contract as fully as if printed and bound with the Specifications, but only to the limited extent that such standards are applicable to the Work.

**2.2.2 Availability of Referenced Standards.** CONTRACTOR is responsible for obtaining and having available at the Project Site a copy of each Referenced Standard insofar as it is applicable to the Work.

**2.2.3 Precedence of Contract Documents Over Referenced Standards.** No provision of a Referenced Standard is effective to change (i) the procedures established in the Contract Documents or by any applicable laws or regulations, or (ii) the duties and responsibilities of the OWNER, E/A or CONTRACTOR from those set forth in the Contract Documents; nor is any provision of a Referenced Standard effective to assign to the OWNER or the E/A any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the Contract.

## **ARTICLE 3 - PRELIMINARY MATTERS**

**3.1 Pre-Contract Submittals.** The OWNER reserves the right to require certain Submittals before executing the Contract. Submittals required before execution of the Contract include, but are not limited to Insurance certificates acceptable to the OWNER as provided in the Contract and any other submittals required by the Bid Documents.

**3.2 Project Information.** Within ten days after the Effective Date, the OWNER will furnish CONTRACTOR free of charge, two signed, sealed, hard copies and one electronic copy of the Plans in AutoCAD and the Technical Provisions in PDF format, and one copy of each of the Site Related Reports, if any. All Site Related Reports are given to CONTRACTOR for information only, are not warranted as to accuracy, and are not a part of the Contract Documents. CONTRACTOR will not be entitled to rely on the accuracy or the completeness of any information contained in these Reports in performing the Work required herein, or in seeking claims for Contract Price or Contract Time adjustments. It is the CONTRACTOR's responsibility to determine and verify all information provided by OWNER including, but not limited to grades and elevations.

**3.3 CONTRACTOR's Review of Contract Documents and Site Related Reports.** Before undertaking a project, CONTRACTOR will carefully study the Contract Documents and any Site Related Reports provided by OWNER, to check and verify pertinent figures shown thereon compares accurately to all applicable field measurements. CONTRACTOR will promptly report in writing to the Contract Administrator any conflict, error, ambiguity, or discrepancy that CONTRACTOR discovers and will obtain a written interpretation or clarification from the Contract Administrator before proceeding with any Work affected thereby. CONTRACTOR will be liable to the OWNER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents or Site Related Reports of which CONTRACTOR knew or reasonably should have known.

## **3.4 Pre-Construction Submittals.**

**3.4.1** CONTRACTOR will prepare and submit all required pre-construction submittals within 15 Days after the Effective Date, except where the Contract Administrator extends time for submittal in writing. The submittals will include each of the following:

**3.4.1.1** A proposed Progress Schedule, developed using Microsoft Project software unless otherwise approved by the Contract Administrator. The Progress Schedule will (i) indicate the times (number of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract, (ii) identify the Critical Path for completing the Work, (iii) identify when all subcontractors will be utilized,



and (iv) take into consideration any Working Hours limitations. The Progress Schedule will contain sufficient detail to indicate that CONTRACTOR has identified all required Work elements and tasks, has provided for a sufficient and proper workforce and integration of subcontractor, has provided sufficient resources and has considered the proper sequencing of the Work required to result in a successful Project that can be completed in accordance with any Milestones and within required completion deadlines.

**3.4.1.2** A proposed Schedule of Values, except where the Contract Price is based solely on Unit Prices set forth in the Bid Schedule. The Schedule of Values will be prepared in such a manner that each item of Work is shown as one or more line items on AIA Document G703, Continuation Sheet (latest ed.) or such other form as the OWNER may prescribe, and will contain such detail and be supported by such data as to allow the OWNER and the E/A to substantiate accuracy. Upon approval by the OWNER, the Schedule of Values will be used as the basis for reviewing progress payment requests. After the OWNER has approved the initial Schedule, CONTRACTOR will revise and resubmit for the OWNER's approval, amended Schedules of Values as necessary to reflect adjustments in the Contract Price resulting from approved Change Orders. A schedule of values may be required if a substantial portion of the contract price is a lump sum bid item.

**3.4.1.3** An organizational chart showing the principals and management personnel who will be involved with the Work, including each one's responsibilities for the Work.

**3.4.1.4** Preliminary Shop Drawings. Shop Drawings will be neat, legible, and drawn to scale. CONTRACTOR will specifically identify any proposed deviations from dimensions, details, and other requirements as provided by the Plans and specifications. When submitting Shop Drawings, CONTRACTOR will also provide a written narrative explanation itemizing each proposed deviation from the Specifications or other Contract requirements. No such deviations will be deemed to be accepted unless they are specifically approved in accordance with the procedures for substitutes and Change Orders.

**3.4.1.5** To the extent not set forth in the Contract, a letter designating the Superintendent and, if such designation is required by the Supplemental General Conditions, the Project Manager.

**3.4.1.6** A letter designating CONTRACTOR's safety representative, who will be responsible for general safety and excavation safety measures along with certifications or other documentation of the safety representative's qualifications.

**3.4.1.7** If applicable, an excavation safety system plan.

**3.4.1.8** If applicable, a plan illustrating proposed locations of temporary facilities.

**3.4.1.9** A completed Non-Use of Asbestos Affidavit (prior to construction).

**3.4.1.10** A map of proposed "haul routes" for delivery of materials and transportation of equipment to the Project Site.

**3.4.1.11** A letter designating the Florida Registered Professional Land Surveyor for layout of the Work, if the Work requires the services of a surveyor.

**3.4.1.12** Any other documents as required by the OWNER, consistent with the terms of the Contract.

The Supplemental General Conditions (if any) or the Technical Provisions may amplify, waive, or otherwise amend requirements for the above-referenced submittals.

**3.4.2** The OWNER will have the right to accept or reject each of the required submittals. The OWNER will provide CONTRACTOR written notice as to any submittals that are rejected, in which instance CONTRACTOR will promptly resubmit them. Alternatively in such instance, the OWNER will have the right but not the obligation to schedule a preconstruction meeting; provided that the preconstruction meeting is scheduled no later than 30 days

after the Effective Date, and the OWNER may delay issuance of the Notice to Proceed until the OWNER and CONTRACTOR have held the meeting.

**3.4.3** The OWNER's acceptance of the above-referenced submittals will be deemed to be general only relating solely to their sufficiency and compliance with the intent of the Contract. Such acceptance does not constitute the OWNER's adoption, affirmation, or direction of CONTRACTOR's means and methods, and does not constitute a Change Instrument. OWNER's acceptance of the Progress Schedule will not impose on the OWNER, responsibility or liability for the sequencing, scheduling, or progress of the Work, and will not relieve CONTRACTOR from CONTRACTOR's responsibility for complying with the terms and conditions of this Contract. CONTRACTOR will at all times remain responsible for the factual accuracy of all such submittals.

**3.5 Notice to Proceed.** No work will proceed until the OWNER has issued a written notice to proceed. The OWNER will issue a Notice to Proceed within 60 days after the Effective Date, provided that CONTRACTOR has submitted all required documents, including insurance and, where applicable Performance Security. The OWNER in its sole discretion may delay issuing the Notice if CONTRACTOR has not completed its preconstruction submittals within that time; or with CONTRACTOR's written concurrence for any other or no reason.

**3.6 Limitations on Custody and Use of Plans.** CONTRACTOR will not re-use the Plans and Technical Provisions, including modifications thereto, on any other project or for any other client. CONTRACTOR may not own or claim a copyright in the Site-Related Reports, or the Plans or any other Contract Documents. With the exception of the signed Contract Documents, all sets of the above-referenced documents are the property of the OWNER, and will be returned to the OWNER on request or at the completion of the Work prior to issuance of Final Payment.

**3.7 Availability of Lands.** The OWNER will provide access to the Project Site, secure any easements necessary therefore, and notify CONTRACTOR of any restrictions in such access. The OWNER may identify in the Contract Documents encumbrances or restrictions not of general application which are known by the OWNER and specifically related to use of the Site, but which are not of public record. CONTRACTOR will comply with such encumbrances and restrictions in performing the Work. Permanent easements for the completed facility or for changes in existing facilities will be obtained and paid for by the OWNER, unless otherwise provided in the Contract Documents.

#### **ARTICLE 4 – OWNER'S RESPONSIBILITIES**

**4.1 Contract Administrator.** The Contract Administrator is authorized to administer the Contract on behalf of the OWNER, commencing on the Effective Date and terminating on the date CONTRACTOR performance is completed (including final payment) or terminated.

**4.1.1** The Contract Administrator's authority is limited as follows:

- .1 Provide direction to CONTRACTOR to ensure satisfactory and complete performance;
- .2 Issue Field Directives;
- .3 Monitor and inspect CONTRACTOR performance to ensure acceptable timeliness and quality;
- .4 Maintain necessary documentation and records regarding CONTRACTOR performance and other pertinent matters;
- .5 Furnish timely written notice of CONTRACTOR performance failures to the City Manager and to the City Attorney, as appropriate;
- .6 Determine acceptance or rejection of CONTRACTOR's performance;
- .7 Approve or reject applications for payment, other than application for final payment;
- .8 Furnish necessary reports to the City Manager;
- .9 Recommend Change Instruments or stop work orders to the City Manager; and

- .10 Recommend termination of Contract or work authorizations for default or convenience to the City Manager.

4.1.2 The authority of the Contract Administrator is limited to the functions set forth above. In particular, the Contract Administrator is NOT authorized to make determinations (as opposed to recommendations) that:

- .1 Alter or modify Contracts;
- .2 Terminate or cancel Contracts;
- .3 Approve, as opposed to recommend, Change Orders or Contract Amendments;
- .4 **Except as expressly provided herein**, interpret ambiguities in Contract language; or
- .5 Approve final applications for payment; or
- .6 Waive the OWNER's contract rights.

4.2 **City Manager.** The City Manager has all of the authority of the Contract Administrator. The City Manager has authority to approve final applications for payment except where approval also requires approval of a change order that is not within the City Manager's authority, below. In addition, the City Manager is authorized to issue (i) Change Orders increasing Contract Price or Contract Time as provided in the Purchasing Code or as specifically authorized by the City Commission; (ii) Change Orders reducing Contract Price or Contract Time; and (iii) stop work orders where reasonably necessary to preserve property or prevent injury.

4.3 **Authority Reserved in City Commission.** All administrative authority not specifically conferred upon the Contract Administrator or City Manager is reserved to the City Commission. Modifications to the Contract required to be approved by the Commission may be in the form of Change Orders or formal amendments, as appropriate.

4.4 **General Obligation to Avoid Delays.** Information or services under the OWNER's control will be furnished by the OWNER with reasonable promptness to avoid delay in orderly progress of the Work. The OWNER will have a reasonable amount of time to investigate site conditions, review submittals, analyze requests for changes, and to make other decisions in the orderly administration of the Contract. CONTRACTOR will notify the OWNER in writing, if the time for the investigation, review, analysis of any submittals, required for changes or otherwise required for the OWNER's decision, impacts in any way the Critical Path of the current approved Progress Schedule.

4.5 **Owner-Provided Inspectors.** The OWNER will provide persons to perform OWNER-required inspections.

## ARTICLE 5 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS

CONTRACTOR will obtain any additional temporary construction facilities, stockpiling or storage sites not otherwise provided. CONTRACTOR will be responsible for providing at his own expense and without liability to the OWNER, any additional land and access thereto that may be required for temporary construction facilities, or for storage of materials. CONTRACTOR will be required to obtain approval of any private property owner for such additional lands and access unless specifically provided otherwise in the Contract Documents.

### 5.1 Subsurface and Physical Conditions.

5.1.1 CONTRACTOR affirms that CONTRACTOR has carefully examined the Plans and the Site-Related Reports, if any. CONTRACTOR acknowledges that the Site-Related Reports are **not** a guarantee of specific site conditions which may vary between boring locations, and that the Project Site is unwarranted.

5.1.2 CONTRACTOR affirms that prior to executing this Contract, CONTRACTOR has had the opportunity to become familiar with the Project Site and the local conditions under which the Project is to be constructed and operated, and to undertake its own geotechnical studies to the extent that CONTRACTOR deems appropriate. CONTRACTOR will not be entitled to any additional time or compensation as a result of any conditions at the Project Site which would have been disclosed to CONTRACTOR by a site visit or by undertaking its own geotechnical studies.

**5.1.3** CONTRACTOR will provide the OWNER written notice as soon as reasonably possible, but no later than three days, if unforeseen conditions are encountered at the Project Site which are subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature that differ materially from those normally encountered in the type of work being performed under this Contract. CONTRACTOR may not disturb the conditions until the OWNER conducts an investigation. The OWNER will promptly investigate such conditions.

**5.1.3.1** If it is determined that such conditions differ materially and cause an increase or decrease in CONTRACTOR's cost of or time required for performance of any part of the Work, the Contract Administrator will recommend an equitable adjustment in the Contract Price or Contract Time, or both. If it is determined that such conditions are not materially different from those indicated in the Contract Documents, the Contract Administrator will notify CONTRACTOR in writing of such findings and the Contract will not be adjusted.

**5.1.3.2** CONTRACTOR will be liable to the OWNER for failure to report any such conflict, error, ambiguity, or discrepancy of which CONTRACTOR knew or reasonably should have known, and for CONTRACTOR's failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents within said three-day period, and for any increases in Project costs, or damages accruing, in association with CONTRACTOR's disturbance of the conditions pending OWNER's investigation.

**5.1.4** Notwithstanding any other provision of this Contract, CONTRACTOR is solely responsible for the location and protection of any and all public utility lines and utility customer service lines in the Work area. "Public utility lines" means the utility distribution and supply system, and "utility customer service lines" means the utility lines connecting customers to the utility distribution and collection system. Generally, existing utility customer service line connections are not shown on the Plans. CONTRACTOR will notify "One Call" and exercise due care to locate, mark, uncover and otherwise protect all such lines in the construction zone and any of CONTRACTOR's work or storage areas. CONTRACTOR's responsibility for the location and protection of utilities is primary and non-delegable. CONTRACTOR will indemnify or reimburse such expenses or costs (including fines that may be levied against the OWNER) that may result from unauthorized or accidental damage to all public lines and utility customer service lines in the work area. The OWNER reserves the right to repair any damage CONTRACTOR causes to such utilities at CONTRACTOR's expense. If a public or customer service line is damaged by CONTRACTOR, CONTRACTOR will give verbal notice within one hour and written notice within 24 hours, to the OWNER and to the utility representatives identified on the Plans.

**5.1.5** CONTRACTOR will take reasonable precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature will be disturbed without written permission of the OWNER and the FDHR. When such objects are uncovered unexpectedly, CONTRACTOR will stop all Work in close proximity and notify the OWNER and the FDHR of their presence and will not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities uncovered on the OWNER's property will remain property of FDHR conforming to applicable provisions of Florida Statutes. If the OWNER, in consultation with the FDHR, determines that exploration or excavation of primitive records or antiquities on Project Site is necessary to avoid loss, CONTRACTOR will perform salvage work attendant to preservation. If the Work stoppage or salvage work causes an increase in CONTRACTOR's cost of, or time required for, performance of the Work, the Contract Price or Contract Time will be equitably adjusted subject to compliance with the provisions herein for Changes and Delays.

**5.2 Protection of Reference Points.** Unless otherwise specified, the OWNER will furnish a base line and a suitable number of bench marks adjacent to the work. From the information provided by the OWNER, CONTRACTOR will develop and make all detailed surveys, stakes, lines, and elevations, as CONTRACTOR deems necessary. CONTRACTOR will carefully protect and preserve benchmarks, reference points, and stakes. If these benchmarks, reference points, or stakes are disturbed or destroyed due to CONTRACTOR's failure to comply with the above-referenced requirement, CONTRACTOR will bear the cost of expenses of relocating and replacing them, including the costs of a Registered Professional Land Surveyor if the OWNER determines the same to be necessary.

### **5.3 Hazardous Materials.**

**5.3.1** To the extent provided by applicable law, the OWNER will be responsible for any pre-existing hazardous material uncovered or revealed at the Project Site which was not shown, indicated or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work.

**5.3.1.1** CONTRACTOR will immediately stop Work in the affected area and will take all necessary precautions to avoid further disturbance of the materials. CONTRACTOR will also will immediately notify the OWNER and, if required by applicable law or regulations, all government or quasi-government entities with jurisdiction over the Project or Project Site.

**5.3.1.2** Upon receiving notice of the presence of suspected Hazardous Materials, the OWNER will take the necessary measures required to ensure that the Hazardous Materials are remediated or rendered harmless. Such necessary measures will include the OWNER retaining qualified independent experts to (i) ascertain whether Hazardous Materials have actually been encountered, and, if they have been encountered, (ii) prescribe the remedial measures that the OWNER will take either to remove the Hazardous Materials or render the Hazardous Materials harmless.

**5.3.1.3** CONTRACTOR will be obligated to resume Work at the affected area of the Project only after the OWNER provides written certification that (i) the Hazardous Materials have been removed or rendered harmless and (ii) all necessary approvals have been obtained from all government and quasi-government entities having jurisdiction over the Project or Site. CONTRACTOR will be responsible for continuing the Work in the unaffected portion of the Project and the Project Site.

**5.3.1.4** CONTRACTOR will be entitled, in accordance with these General Conditions, to an adjustment in its Contract Price or Contract Time(s) to the extent CONTRACTOR's cost or time of performance have been adversely impacted by the presence of Hazardous Materials.

**5.3.2** CONTRACTOR will maintain at the Project Site, available to the OWNER, appropriate information pertaining to all Hazardous Materials brought to the Project Site by CONTRACTOR or any subcontractor, and as may be required by the Supplemental General Conditions, if any. CONTRACTOR will ensure that all such materials are properly labeled or identified, and will properly store, handle and use them at all times. In accordance with federal Hazard Communication Standard (29 CFR § 1910.1200) and all other applicable Legal Requirements, manufacturers and distributors are required to label each Hazardous Material or chemical container, and to provide Material Safety Data sheets to the purchaser. CONTRACTOR will comply with these laws and will provide the OWNER with copies of all relevant documents, including Material Safety Data sheets prior to performance or services or contemporaneous with delivery of goods. CONTRACTOR will provide and designate appropriate and secure areas for their storage and will notify the OWNER of their presence and location at Project Site. CONTRACTOR will not store Hazardous Materials at the Project Site in excess of those reasonably needed for CONTRACTOR's prosecution of the Work, and will properly remove or dispose of all Hazardous Materials, including combustible waste, as soon as possible after completion of the operations in which they are utilized.

**5.3.3** No asbestos-containing materials will be incorporated into the Work or brought on Project Site without prior approval of the OWNER. CONTRACTOR will not knowingly use, specify, request or approve for use any asbestos containing materials or lead-based paint without the OWNER's written approval. When a specific product is specified, CONTRACTOR will endeavor to verify that the product does not include asbestos containing material.

**5.3.4** CONTRACTOR will be solely responsible for use, storage and remediation of any Hazardous Materials brought to Project Site by CONTRACTOR, subcontractors, sub-subcontractors, suppliers, and anyone else for whom CONTRACTOR is responsible. CONTRACTOR will indemnify, defend and hold harmless the OWNER and the OWNER's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those Hazardous Materials introduced to Project Site by CONTRACTOR, subcontractors, sub-subcontractors, suppliers, or anyone for whose acts they may be liable.

## ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

### 6.1 General Responsibilities.

**6.1.1 Scope of Work.** CONTRACTOR will provide, perform, and complete all necessary work, labor, services, transportation, equipment, materials, apparatus, machinery, tools, fuels, gas, electric, water, waste disposal, information, data and other means and items necessary to accomplish the Project at the Work Site, including measures for sediment control, storm water management, and waste disposal, in compliance with this Contract. CONTRACTOR is required to perform all Work specified in the Contract Documents and reasonably inferable from these Documents as being necessary to produce the intended results.

**6.1.2 Quality.** All materials and Work will be of good quality for the intended use and consistent with the quality of surrounding Work, and will conform to the requirements of the Contract Documents and to the standards for construction of the Project generally. All materials will be new.

**6.1.3 Construction Means and Methods.** CONTRACTOR will provide continuous on-site supervision and direction of the Work using CONTRACTOR's best efforts. CONTRACTOR will have control over construction means, methods, techniques, sequences, and procedures, unless the Contract Documents give other specific instructions concerning these matters, and is solely responsible therefore.

**6.1.4 Discipline at the Project Site.** CONTRACTOR will enforce strict discipline and good order among CONTRACTOR's employees and other persons for whose Work CONTRACTOR is responsible, including CONTRACTOR's employees, subcontractors, sub-subcontractors, and suppliers, and the agents and employees of any of them.

**6.1.5 Responsibility for Subordinates.** CONTRACTOR is responsible for the acts and omissions of all persons performing portions of the Work at the Project Site, including but not limited to CONTRACTOR's employees, subcontractors, sub-subcontractors, and suppliers, and the agents and employees of any of them.

**6.1.6 Assignment, Scheduling and Coordination.** CONTRACTOR is solely responsible for and has control over assigning, scheduling and coordinating all portions of the work under the Contract performed by CONTRACTOR's own forces and by its subcontractors, sub-subcontractors, and suppliers, in accordance with the approved Progress Schedule, unless the Contract Documents give other specific instructions concerning these matters.

**6.1.7 Obligations Not Relieved.** CONTRACTOR is not relieved of its obligations to perform the Work in accordance with the Contract Documents, by the activities or duties of the OWNER or the E/A in the administration of the Contract or of construction, or by tests, inspections, or approvals required or performed by persons other than CONTRACTOR.

**6.1.8 Ongoing Duty to Report Problems with Contract Documents.** If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between any Contract Document and any Legal Requirement or of any such standard, specification, manual, or code or instructions of any manufacturer or supplier, CONTRACTOR will within three days of such discovery report it to the OWNER in writing, and CONTRACTOR will not proceed with the Work affected thereby until a Change Order has been issued. CONTRACTOR will be liable to the OWNER for failure to report any such conflict, error, ambiguity, or discrepancy of which CONTRACTOR knew or reasonably should have known. CONTRACTOR will be liable to the OWNER for CONTRACTOR's failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents within said three-day period.

**6.1.9 Inspection of Work.** CONTRACTOR will make frequent inspections during the progress of the Work to confirm that work previously performed by CONTRACTOR is in compliance with the requirements of this Contract, and that any portion of Work previously performed by CONTRACTOR or by others is in proper condition to receive subsequent Work.

**6.2 Diligent Prosecution.** CONTRACTOR will at all times be responsible for the diligent prosecution of the Work so as to complete the Work within the Contract Time.

**6.2.1** CONTRACTOR will have an affirmative obligation to rearrange Milestones, notwithstanding the manner in which they are scheduled in the current approved Progress Schedule, as circumstances may require. If in order to meet this obligation CONTRACTOR rearranges the order of Work in a manner that materially departs from the current approved Progress Schedule, CONTRACTOR will within 3 days thereafter provide notice to the OWNER, who may require CONTRACTOR to submit a revised Progress Schedule reflecting the rearrangement. No revised Progress Schedule extending the Contract Time will be approved without the issuance of a Change Order in compliance with the Contract Documents.

**6.2.2** CONTRACTOR will carry on the Work and adhere to the current approved Progress Schedule, including during all disputes or disagreements with the OWNER. No Work will be delayed or postponed pending resolution of any disputes or disagreements, except as the OWNER and CONTRACTOR may otherwise agree through a Change Order or Contract amendment.

**6.3 Supervision and Superintendence.**

**6.3.1** CONTRACTOR will supervise the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

**6.3.2** CONTRACTOR will have an English-speaking, competent Superintendent on the Work at all times that work is in progress. The Superintendent will be CONTRACTOR's representative on the Work and will have the authority to act on the behalf of CONTRACTOR. All communications given to the Superintendent will be as binding as if given to CONTRACTOR, even where written notice is otherwise required. Either CONTRACTOR or the Superintendent will provide a cellular telephone number and an emergency and home telephone number at which one or the other may be reached if necessary when Work is not in progress. The Superintendent will be an employee of CONTRACTOR, unless waived in writing by the OWNER. If CONTRACTOR proposes a management structure with a Project Manager supervising, directing, and managing construction of the work in addition to or in substitution of a Superintendent, the requirements of these Construction Documents with respect to the Superintendent will likewise apply to any such Project Manager.

**6.3.2.1** CONTRACTOR will present the resume of the proposed Superintendent to the OWNER showing evidence of experience and successful superintendence and direction of work of a similar scale and complexity. The OWNER may reject the proposed Superintendent if the OWNER determines that the proposed Superintendent does not have sufficient experience in line with the Work, in which instance CONTRACTOR will propose a different Superintendent for OWNER approval.

**6.3.2.2** CONTRACTOR will not replace the Superintendent without written notice to the OWNER. If CONTRACTOR deems it necessary to replace the Superintendent, CONTRACTOR will provide the necessary information for approval, as stated above, on the proposed new Superintendent.

**6.3.2.3** CONTRACTOR may designate a qualified substitute Superintendent if the designated Superintendent is temporarily away from the Work, subject to OWNER approval.

**6.3.2.4** CONTRACTOR will replace the Superintendent upon the OWNER's request, if the Superintendent is unable to perform to the OWNER's satisfaction.

**6.4 Labor, Materials, and Equipment.**

**6.4.1** CONTRACTOR will employ only orderly and competent workers, skillful in performance of the type of Work required under this Contract. CONTRACTOR will prohibit the use and possess any alcoholic or other intoxicating beverages, illegal drugs, or controlled substances while on the job or on the OWNER's property. Subject to the applicable provisions of Florida law, neither CONTRACTOR, nor subcontractors, suppliers, or other agents of CONTRACTOR, may use or possess any firearms or other weapons while on the job or on the OWNER's property. If the OWNER notifies CONTRACTOR that any officer, employee, subcontractor, supplier, or other agent

is incompetent, disorderly, abusive, or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms in contravention of the applicable provisions of Florida law, or has possessed or was under the influence of alcohol or drugs on the job, CONTRACTOR will immediately remove that person from performing Contract Work, and may not employ that person again on the Work without the OWNER's prior written consent. CONTRACTOR will at all times maintain good discipline and order on- and off-Project Site in all matters pertaining to the Project. CONTRACTOR will pay workers no less than the wage rates established by law, and maintain weekly payroll reports as evidence thereof.

**6.4.2** CONTRACTOR will not use any preexisting facilities of the OWNER without the specific written consent of the OWNER, except as indicated in the Contract Documents. CONTRACTOR is solely responsible for temporary facilities and services provided or utilized by CONTRACTOR and will remove those not required to remain at the completion of the Work or any portion thereof, will promptly correct any damage caused by the erection, use or removal of temporary facilities; and will restore the Project Site and any adjacent areas to their original condition or that required by the Contract Documents upon completion of the Work.

**6.4.3** CONTRACTOR will store, handle, install, and test all materials in accordance with the manufacturer's or suppliers' most recent instructions and recommendations. CONTRACTOR will promptly notify the OWNER if these instructions and recommendations are in conflict with any provision of the Contract Documents.

**6.4.4** All materials and equipment will be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with instructions of the applicable manufacturer and supplier, except as otherwise provided in the Contract Documents. The Contract Administrator or E/A may require CONTRACTOR to furnish one or more of the following:

**6.4.4.1** Satisfactory evidence (i.e., reports of required tests, manufacturer's certificates of compliance with material requirements, mill reports, etc.) as to the kind and quality of materials and equipment.

**6.4.4.2** Samples of required equipment and materials prior to having such equipment and materials delivered to the Project Site. Each sample submitted by CONTRACTOR will carry a label giving the name of CONTRACTOR, the Project, and the name of the producer. The accompanying certificate or letter from CONTRACTOR will state that the sample complies with the contract requirements, will give the name and brand of the product, its place of origin, the name and address of the producer and all specifications or other detailed information which will assist the OWNER in reviewing the sample promptly. It will also include the statement that all materials or equipment furnished for use in the Project will comply with the samples or certified statements. In addition, the accompanying certificate will include a written narrative explanation itemizing the extent to which the sample deviates from the Specifications or other Contract requirements.

**6.4.5** The OWNER will not be required to consider delays in the Work caused by delivery of non-complying materials or equipment, or by late or improper submission test reports or manufacturer's certificates for OWNER approval, as just cause for an extension of the Contract Time. The OWNER's acceptance of any test report, certificate, or sample will be general only and will not constitute a waiver of the OWNER's right to demand full compliance with Contract requirements, nor relieve CONTRACTOR from ensuring full compliance with the Contract.

**6.4.6** CONTRACTOR will assign to the OWNER, any rights CONTRACTOR may have to bring antitrust suits against suppliers for overcharges on materials incorporated in the Project growing out of illegal price fixing agreements. CONTRACTOR will cooperate with the OWNER should the OWNER wish to prosecute suits against suppliers for illegal price fixing.

**6.4.7.** Upon CONTRACTOR's request and the Contract Administrator's written approval, CONTRACTOR may locate stored materials off-site, so long as they are in a bonded and insured facility, accessible to the OWNER, and are clearly marked as OWNER's property.

**6.4.8** Title to materials delivered to the Project Site or stored off-site will not be deemed to pass to the OWNER until the OWNER accepts such title by paying for same. The OWNER will be entitled but is not required to request title documentation. Risk of loss will not pass to the OWNER until title passes.



## **6.5 Concerning Subcontractors, Suppliers, and Others.**

**6.5.1** CONTRACTOR will retain direct control of and give direct attention to the fulfillment of this Contract. CONTRACTOR agrees not to assign this Contract, by power of attorney or otherwise, without the OWNER's prior written consent.

**6.5.2** Unless the Supplemental General Conditions provide otherwise, CONTRACTOR will not subcontract the performance of the entire Project or the supervision and direction of the Work without the OWNER's prior written consent. CONTRACTOR will not employ any subcontractor or other person or organization, whether initially or as a substitute, against whom the OWNER may have reasonable objection. The OWNER will communicate such objections by written notice. CONTRACTOR will not substitute any subcontractor that has been accepted by the OWNER, unless the OWNER first accepts the substitute in writing.

**6.5.3** CONTRACTOR will enter into written agreements with all subcontractors and suppliers which specifically bind the subcontractors and suppliers to the applicable terms and conditions of the Contract Documents for the OWNER's benefit. The OWNER reserves the right to specify that certain requirements will be adhered to by all subcontractors and sub-subcontractors as indicated in other portions of the Contract Documents, in which instance these requirements will be made a part of the written agreement between CONTRACTOR and each subcontractor. CONTRACTOR's standard subcontract form is subject to the OWNER's review and approval. Within five working days of the OWNER's request for subcontractor contract documents, CONTRACTOR will provide them to the OWNER.

**6.5.4** CONTRACTOR will be fully responsible to the OWNER for all acts and omissions of the subcontractors, suppliers, and other persons and organizations performing or furnishing any of the Work under contract with CONTRACTOR and under contract with CONTRACTOR's subcontractors or suppliers, just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents will create for the benefit of any such subcontractor or other person or organization any contractual relationship between the OWNER and any such subcontractor or other person or organization, nor will it create any obligation on the part of the OWNER or E/A to pay or to see to the payment of any moneys due any such subcontractor or other person or organization except as may otherwise be required by Legal Requirements.

**6.5.5** CONTRACTOR will be solely responsible for efficiently scheduling and coordinating the Work of subcontractors and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR in order to avoid any delays or inefficiencies in the prosecution of the Work. CONTRACTOR will require all subcontractors and such other persons and organizations performing or furnishing any of the Work to communicate with the OWNER through CONTRACTOR.

**6.5.6** The divisions and sections of the Technical Provisions and the identification of any Plans will not control CONTRACTOR in dividing or delineating the Work to be performed by any specific trade.

**6.5.7** CONTRACTOR will pay each subcontractor their appropriate share of payments made to CONTRACTOR not later than ten days of CONTRACTOR's receipt of payment from the OWNER.

**6.5.8** To the extent allowed by Florida law, the OWNER will be deemed to be a third party beneficiary to each subcontract and may, if the OWNER elects, following a termination of CONTRACTOR, require that the subcontractor(s) perform all or a portion of unperformed duties and obligations under its subcontract(s) for the benefit of the OWNER, rather than CONTRACTOR; however, if the OWNER requires any such performance by a subcontractor for the OWNER's direct benefit, then the OWNER will be bound and obligated to pay such subcontractor the reasonable value for all Work performed by such subcontractor to the date of the termination of CONTRACTOR, less previous payments, and for all Work performed thereafter. If the OWNER elects to invoke the OWNER's right under this Section, the OWNER will provide notice of such election to CONTRACTOR and the affected subcontractor(s).

## **6.6 Patent Fees and Royalties.**

**6.6.1** CONTRACTOR will be responsible at all times for compliance with applicable patents and copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the Work or the formulation or presentation of its Bid.

**6.6.2** CONTRACTOR will pay all royalties and license fees and will provide, prior to commencement of Work hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not the OWNER specifies a particular design, device, material, or process.

**6.6.3** CONTRACTOR will defend all suits or claims for infringement of any patent or copyright and will save the OWNER harmless from any loss or liability, direct or indirect, arising with respect to CONTRACTOR's process in the formulation of its Bid or the performance of the Work or otherwise arising in connection therewith. The OWNER reserves the right to provide its own defense to any suit or claim of infringement of any patent or copyright in which event CONTRACTOR will indemnify and save harmless the OWNER from all costs and expenses of such defense as well as satisfaction of all judgments entered against the OWNER.

**6.6.4** The OWNER will have the right to stop the Work or terminate this Contract at any time if CONTRACTOR fails to disclose to the OWNER that CONTRACTOR's work methodology includes the use of any infringing design, device, material, or process.

**6.7 Permits, Fees.** CONTRACTOR will secure and pay for at CONTRACTOR's expense, all permits and licenses of a temporary nature that are required for the prosecution of the Work; provided, however, that the OWNER will reimburse CONTRACTOR for any CITY-required permits unless specified otherwise in the Supplemental General Conditions.

Unless the Supplemental General Conditions provide otherwise, the OWNER will obtain licenses and easements for permanent structures and or permanent changes in existing facilities.

## **6.8 Construction Operations.**

**6.8.1** CONTRACTOR will confine operations at the Project Site to those areas permitted by all Legal Requirements, and will not unreasonably encumber the Project Site with materials and equipment. CONTRACTOR will assume full responsibility for any damage to any portion of the Project Site, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. If an adjacent property owner or occupant files a claim because of or in connection with the performance of the Work, CONTRACTOR will promptly settle the claim by negotiation or as otherwise provided by law. CONTRACTOR will indemnify, defend and hold harmless the OWNER and anyone directly or indirectly employed by the OWNER, from and against all claims, costs, losses, and damages (including court costs and reasonable attorney's fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such the owner or occupant against the OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the Work or failure to perform the Work.

**6.8.2** CONTRACTOR will establish the exterior lines and elevations of all buildings and structures to be erected on the Project Site, and lines and grades of site work such as roads, utilities, and site grading, based on reference points, the location of existing structures and improvements, or benchmarks identified in the site surveys provided by the OWNER. CONTRACTOR will provide a professional certification by a professional engineer or land surveyor as to the actual location of building lines prior to constructing any foundations. CONTRACTOR will establish the building grades, lines, and levels, and column, wall, and partition lines required by subcontractors in laying out the Work. At the completion of the Work, CONTRACTOR will provide another professional certification by a registered engineer or land surveyor as to the location of completed improvements in relation to property lines, building lines, easements, and other boundaries.

**6.8.3** CONTRACTOR will not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor will CONTRACTOR subject any part of the Work, the Project Site, or adjacent property to stresses or pressures that will endanger it.

**6.8.4** All Work will be performed solely during Working Hours, unless (i) more restrictive hours are required by CITY ordinances or other Legal Requirements governing CONTRACTOR's performance of the Work, or (ii) the Contract Administrator approves expanded Working Hours in writing, such as in the event of emergencies, in which instance the Contract Administrator's approval may be terminated at any time and for any reason without recourse to CONTRACTOR. The OWNER has the right to impose further restrictions on working hours reasonably related to the use of occupied facilities. No delays resulting from compliance with applicable Legal Requirements may form the basis for any claim by CONTRACTOR for delay damages or additional compensation or for any extensions of the Contract Time; any delays arising from restrictions related to the use of occupied facilities are non-compensable and any claims for extensions of the Contract Time relating to them will be filed in accord with Article 11 or the same will be conclusively deemed to have been waived. CONTRACTOR will not permit Work outside of Working Hours without the written consent of the OWNER; such consent, if given, may be conditioned upon payment by CONTRACTOR of the OWNER's additional costs and fees incurred in monitoring such off-hours Work. CONTRACTOR will notify the OWNER as soon as possible if Work will be performed outside such times in the interest of the safety and protection of persons or property at the Project Site or adjacent thereto, or in the event of an emergency. In no event will CONTRACTOR permit Work to be performed at the Project Site without the presence of CONTRACTOR's Superintendent and person responsible for the protection of persons and property at the Project Site and compliance with all Legal Requirements, if different from the Superintendent.

**6.8.5 Temporary Utilities.** CONTRACTOR, at its own expense, will:

**6.8.5.1** Furnish all temporary heat, cooling ventilation, and humidity control including all required apparatus and fuel as may be necessary to protect the Work fully, both during its execution and until Final Completion and acceptance. CONTRACTOR will not use any method of heating, cooling, ventilation, or humidity control of the building unless approved by the OWNER in advance.

**6.8.5.2** Provide all temporary on-Site water service required to perform the Work, to assure safety at the Site, and as otherwise required. All temporary services will be removed by CONTRACTOR.

**6.8.5.3** Furnish all temporary electric service required to perform the Work, to assure safety at the Site, and as otherwise required.

**6.8.5.4** CONTRACTOR will provide and maintain in a neat, sanitary condition such accommodations for the use of CONTRACTOR's employees, subcontractors, and others for whom CONTRACTOR may be responsible, as may be necessary to comply with Legal Requirements, and will commit no public nuisance.

**6.8.6 Site Maintenance.** During the progress of the Work and on a daily basis, CONTRACTOR will keep the Project Site free from accumulation of waste materials, rubbish, and other debris resulting from the Work. If CONTRACTOR fails to do so in a manner reasonably satisfactory to the OWNER within 48 hours after notice or as otherwise required by the Contract Documents, the OWNER may clean the Project Site and back charge CONTRACTOR for all costs associated with the cleaning. At Substantial Completion, CONTRACTOR will leave the Project Site clean, including but not limited to the cleaning of manholes, inlets, and gravity underground piping systems, and ready for the OWNER's occupancy, and will at this point also remove all temporary buildings, waste, trash, debris, and surplus materials. At Final Completion, CONTRACTOR will remove all tools, appliances, construction equipment, and machinery, in addition to the above-referenced materials, and leave the Project Site clean and ready for OWNER's occupancy. This requirement will not apply to property used for permanent disposal of rubbish or waste materials in accordance with permission for such disposal granted to CONTRACTOR by the OWNER. CONTRACTOR will, at a minimum, restore to original condition all property not designated for alteration by the Contract Documents. If CONTRACTOR fails to clean up at the completion of the Work, the OWNER may do so and the cost thereof will be charged against CONTRACTOR.

**6.8.7 Risk of Performance.** If CONTRACTOR performs any work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission, or violation of Legal Requirements in the Contract Documents of which CONTRACTOR is aware, or which could reasonably have been discovered by the review required by CONTRACTOR by this Contract, without prompt written notice to the OWNER and the E/A and request

for correction, clarification or additional information, as appropriate, CONTRACTOR does so at its own risk and expense and all claims relating thereafter are specifically waived.

## **6.9 Legal Requirements.**

**6.9.1** CONTRACTOR will diligently and promptly call for locates required, in accordance with Sunshine State One Call of Florida requirements.

**6.9.2** CONTRACTOR will give all other notices and comply with all other Legal Requirements, including arranging for and obtaining any required inspections, tests, approvals or certifications from any public body having jurisdiction over the Work or any part thereof. Except where these Legal Requirements provide otherwise, neither the OWNER nor the E/A will be responsible for monitoring CONTRACTOR's compliance with any Legal Requirements.

**6.9.3** Maintaining clean water, air, and earth or improving thereon will be regarded as of prime importance. CONTRACTOR will plan and execute its operations in compliance with all applicable Legal Requirements concerning control and abatement of water pollution and prevention and control of air pollution, including where applicable the terms and conditions of the CITY's current National Pollutant Discharge Elimination System (NPDES) permit.

## **6.10 Taxes.**

**6.10.1** CONTRACTOR will pay only those sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Florida in the performance of this Contract.

**6.10.2** The OWNER is an exempt organization as defined by Florida Statutes and is therefore exempt from payment of sales and use taxes.

## **6.11 Maintenance of Records and Documents.**

**6.11.1** CONTRACTOR will maintain at the Site, available to the OWNER for reference during the progress of the Work, a copy of the current approved Progress Schedule and any approved revisions thereto. CONTRACTOR will keep current records of and mark on a copy of the current approved Progress Schedule the actual commencement date, progress, and completion date of each scheduled activity indicated on the Progress Schedule.

**6.11.2** CONTRACTOR will maintain in a safe place at the Project Site, or other location acceptable to the OWNER, one record copy of all Drawings, Specifications, Addenda, Change Instruments and written interpretations and clarifications issued pursuant to this Contract (collectively, "Record Documents") in good order and annotated to show all changes made during construction. The Record Documents and all final samples and final Shop Drawings will be available to the OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, CONTRACTOR will deliver these Record Documents, and final samples and Shop Drawings, to the OWNER.

**6.11.3** To the extent applicable, CONTRACTOR will comply with the requirements of Florida Statutes Section 119.0701, which include the following:

**6.11.3.1** Keeping and maintaining public records that the CITY requires for performance of the service provided herein.

**6.11.3.2** Upon the request of the City Clerk of the CITY, (i) providing the City Clerk with a copy of requested public records or (ii) allowing inspection or copying of the records, within a reasonable time after receipt of the CITY Clerk's request, at a cost that does not exceed the cost provided in Ch. 119, Florida Statutes, or as otherwise provided by law.

**6.11.3.3** Ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law until completion of this Contract, and following such completion if CONTRACTOR fails to transfer such records to the CITY.

**6.11.3.4** Upon completion of this Contract, keep and maintain public records required by the CITY to perform the service. CONTRACTOR will meet all applicable requirements for retaining public records. All records stored electronically must be provide to the CITY upon request from the CITY Clerk, in a format that is compatible with the CITY's information technology systems.

**6.11.3.5** IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTRACTOR MUST CONTACT THE CITY CLERK, WHOSE CONTACT INFORMATION IS AS FOLLOWS:

(Phone)	386 671-8023
(Email)	clerk@codb.us
(Address)	301 S. Ridgewood Avenue Daytona Beach, FL 32114

**6.11.4** Nothing herein will be deemed to waive CONTRACTOR's obligation to comply with Section 119.0701(3)(a), Florida Statutes, as amended by Chapter 2016-20, Laws of Florida (2016).

**6.12 Safety and Protection.**

**6.12.1** CONTRACTOR will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Upon request, and prior to installation of measures, CONTRACTOR will submit a site security plan to the OWNER. By reviewing the plan or making recommendations or comments, the OWNER will not assume liability nor will CONTRACTOR be relieved of liability for damage, injury, or loss. CONTRACTOR will take all necessary precautions for the safety of and will provide the necessary protection to prevent damage, injury, and loss to:

**6.12.1.1** The public;

**6.12.1.2** All persons on the Project Site or who may be affected by the Work;

**6.12.1.3** All the Work and materials and equipment to be incorporated therein, whether in storage on or off Project Site; and

**6.12.1.4** Other personal property, fixtures and other items at the Project Site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.

**6.12.2** CONTRACTOR will comply with the Occupational Safety and Health Administration's (OSHA) Excavation Safety Standard, 29 U.S.C § 651 et seq., 29 C.F.R. 1926.650 Sub Part P., and the Trench Safety Act, Section 553.60 et seq. In addition CONTRACTOR will comply with all other applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss, and will erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR will notify owners of adjacent property and of underground facilities, and utility owners when prosecution of the Work may affect them, and will cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in Subparagraphs 6.12.1.3 and 6.12.1.4, above, caused, directly or indirectly, in whole or in part, by CONTRACTOR, any subcontractor, or any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, will be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or

Specifications or to the acts or omissions of the OWNER, or E/A, or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the faults or negligence of CONTRACTOR or any subcontractor, supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and protection of the Work will continue until such time as all the Work is completed and the OWNER has issued a Certificate of Final Completion (except as otherwise expressly provided in connection with Substantial Completion). Without limitation, CONTRACTOR will comply with the following specific provisions:

**6.12.3** CONTRACTOR will designate in writing a qualified and experienced safety representative at Project Site whose duties and responsibilities will be the prevention of accidents and the maintaining and supervising of safety precautions and programs. Upon request of the OWNER, CONTRACTOR will provide certifications or other documentation of the safety representative's qualifications.

**6.12.4** CONTRACTOR will be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at Project Site in accordance with Legal Requirements.

**6.12.5** CONTRACTOR will comply with the following requirements in emergencies:

**6.12.5.1** In emergencies affecting the safety or protection of persons or the Work at Project Site or adjacent thereto, CONTRACTOR, without special instruction or authorization from the OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work. CONTRACTOR will give the OWNER telephone notification as soon as reasonably practical and a prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the express provisions of this Contract Documents have been caused thereby. If the OWNER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Order will be issued; otherwise the OWNER will not be responsible for CONTRACTOR's emergency action.

**6.12.5.2** Authorized agents of CONTRACTOR will respond immediately to call-out at any time of any day or night when circumstances warrant the presence on Project Site of CONTRACTOR or his agent to protect the Work or adjacent property from damage, restriction or limitation or to take such action or measures pertaining to the Work as may be necessary to provide for the safety of the public. Should CONTRACTOR or CONTRACTOR's agent fail to respond and take action to alleviate such an emergency situation, the OWNER may direct other forces to take action as necessary to remedy the emergency condition, and the OWNER will deduct any cost of such remedial action from the funds due CONTRACTOR under this Contract.

**6.12.5.3** If there is an accident involving injury to any individual or damage to any property on or near the Work, CONTRACTOR will provide to the Contract Administrator verbal notification within one hour and written notification within 24 hours of the event and will be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports, police accident reports and other documentation that describes the event. CONTRACTOR will provide the OWNER copies of such documentation within 48 hours of the event.

**6.12.5.4** CONTRACTOR will cooperate with the OWNER in any investigation of any such incident. CONTRACTOR will immediately report such incidents to any other governmental or quasi-governmental authorities having jurisdiction over safety-related matters as may be required by law.

## **6.13 Indemnification.**

**6.13.1** Any obligation of CONTRACTOR to indemnify or hold harmless under this Contract will not be limited in any way by any limitation on the amount or type of damages, or compensation or benefits payable by or for CONTRACTOR or any such subcontractor, supplier, or other person or organization for whom CONTRACTOR may be responsible under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**6.13.2** Any obligation of CONTRACTOR to indemnify and hold harmless under this Contract, will not extend to the liability of the OWNER, E/A, E/A's consultants, and their officers, directors, partners, employees or

agents, when caused primarily by negligent preparation of maps, drawings, surveys, designs or specifications upon which is placed the applicable state-authorized design professional seal of the OWNER, E/A, or OWNER's or E/A's consultant's, officers, directors, partners, employees or agents.

**6.13.3** If CONTRACTOR fails to follow the OWNER's directives concerning use of Project Site, scheduling or course of construction, or engages in other conduct which proximately causes damage to property based on inverse condemnation or otherwise, then and in that event, CONTRACTOR will indemnify the OWNER against all costs resulting from such claims.

**6.13.4** If CONTRACTOR unreasonably delays progress of the Work being done by others on Project Site so as to cause loss for which the OWNER becomes liable, then CONTRACTOR will indemnify the OWNER from and reimburse the OWNER for such loss.

**6.14 Survival of Obligations.** All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with this Contract, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Contract.

**6.15 Losses from Natural Causes.** Unless otherwise specified, all loss or damage to CONTRACTOR arising out of the nature of the Work to be done or from action of the elements, floods or from unforeseeable circumstances in prosecution of the Work or from unusual obstructions or difficulties which may be encountered in prosecution of the Work, will be sustained and borne by CONTRACTOR at its own cost and expense.

**6.16. Notice of Claim.** Should CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of OWNER or of any of OWNER's employees or agents or others for whose acts OWNER is liable, CONTRACTOR must file a claim within 30 calendar days of the event giving rise to such injury or damage. The provisions of this Section will not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

**6.17 Financial Records.**

**6.17.1** For purposes of this Section 6.17, "financial records" means all records generated by or on behalf of CONTRACTOR and each Subcontractor and supplier of CONTRACTOR, whether paper, electronic, or other media, which are in any way related to performance of or compliance with this Contract, including, without limitation:

- .1 Accounting records;
- .2 Written policies and procedures;
- .3 Subcontract files (including proposals of successful and unsuccessful Bidders, Bid recaps, etc.);
- .4 Original estimates and estimating work sheets;
- .5 Correspondence;
- .6 Change Order files (including documentation covering negotiated settlements);
- .7 Back charge logs and supporting documentation;
- .8 General ledger entries detailing cash and trade discounts earned, insurance rebates and dividends;
- .9 Lump sum agreements between CONTRACTOR and any Subcontractor or supplier;
- .10 Records necessary to evaluate: Contract compliance, Change Order pricing, and any Claim submitted by CONTRACTOR or any of its payees; and
- .11 Any other CONTRACTOR record that may substantiate any charge related to this Contract.

**6.17.2** CONTRACTOR will allow the OWNER, and the OWNER's authorized representatives, to inspect, audit, and reproduce all Records generated by or on behalf of CONTRACTOR and each subcontractor and supplier, upon the OWNER's written request. Further, CONTRACTOR will allow the OWNER, and the OWNER's authorized representatives, to interview any of CONTRACTOR's employees, all Subcontractors, all suppliers, and all of their respective employees.

**6.17.3** CONTRACTOR will retain all its Records, and require all its subcontractors and suppliers to retain their respective Records, during this Contract and for three years after final payment, until all audit and litigation matters that the OWNER has brought to the attention of CONTRACTOR are resolved, or as otherwise required by law, whichever is longer. The OWNER's right to inspect, audit, or reproduce Records, or interview employees of CONTRACTOR or its respective subcontractors or suppliers, exists during this Contract, and for three years after final payment, until all audit and litigation matters that the OWNER has brought to CONTRACTOR's attention are resolved, or as otherwise required by law, whichever is longer, and at no cost to the OWNER, either from CONTRACTOR or any of its subcontractors or suppliers that may furnish Records or make employees available for interviewing.

**6.17.4** CONTRACTOR must provide sufficient and accessible facilities during its normal business hours for the OWNER to inspect, audit, or reproduce Records, or all three, and to interview any person about the Records.

**6.17.5** CONTRACTOR must insert these requirements in each written contract between CONTRACTOR and any subcontractor or supplier and require each subcontractor and supplier to comply with these provisions.

## **ARTICLE 7 - OTHER WORK**

**7.1 Coordinating Other Work.** The OWNER may perform other work related to the Project at Project Site by the OWNER's own forces, or let other contracts for the Project or Project Site, or have other work performed by utility owners. CONTRACTOR and the OWNER agree to and will use best efforts to cooperate and coordinate the Work with others performing work and other work related to the Project in order to avoid conflicts and delays in the Work. If CONTRACTOR believes that delay or additional cost is involved because of such action by the OWNER, CONTRACTOR may make a Claim as provided in Article 11.

**7.2 Proper and Safe Access by Other Contractors.** CONTRACTOR will afford other contractors and each utility owner (and the OWNER, if the OWNER is performing the additional work with the OWNER's employees) proper and safe access to the Project Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and will properly connect and coordinate the Work with theirs. CONTRACTOR will do all cutting, fitting, patching, and finishing of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR will not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the OWNER and the other contractors whose work will be affected. CONTRACTOR will promptly remedy damage wrongfully caused by CONTRACTOR to completed or partially completed construction or to property of the OWNER or separate contractors.

**7.3 CONTRACTOR's Inspection and Reports.** If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR will inspect such other work and promptly report to the OWNER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in such other work.

**7.4 Progress Schedules.** The OWNER will provide for coordination of the activities of the OWNER's own forces, of each separate CITY contractor, and of any other utility owners performing work in relation to the Work of CONTRACTOR, who will cooperate with them. CONTRACTOR will participate with the OWNER any other contractors retained by the OWNER, in reviewing their construction progress schedules when directed to do so. On the basis of such review, CONTRACTOR will make any revisions to the current approved Progress Schedule deemed necessary after a joint review and mutual agreement. The agreed-upon progress schedules will then



constitute the progress schedules to be used by CONTRACTOR, the OWNER, and any other contractor retained by the OWNER until subsequently revised.

**7.5 Improper Timing or Delays.** Costs caused by delays or by improperly timed activities or defective construction will be borne by the party responsible therefore.

## **ARTICLE 8 – WARRANTIES**

### **8.1 General Warranty.**

CONTRACTOR warrants that the Work and all of its components will be free from defects and flaws in design, workmanship, and materials for the duration of the General Warranty Period described below; will strictly conform to the requirements of the Contract; and will be fit, sufficient and suitable for the purposes expressed in, or reasonably inferred from, the Contract. This general warranty is in addition to any other warranties expressed or implied by law, which are hereby reserved unto the OWNER.

**8.1.1 General Warranty Period.** The General Warranty Period will be one year from Substantial Completion, except for those items of equipment or those aspects of work placed in service or approved by the OWNER after Substantial Completion, in which instance the warranty for the particular equipment or aspect of work will be one year from the date of OWNER approval; provided, however, that the General Warranty Period for particular equipment placed in continuous service before Substantial Completion may start to run from an earlier date, if expressly provided in this Contract.

**8.1.2 Duty to Correct.** CONTRACTOR will correct any and all defects that defects in material or workmanship which may appear during the General Warranty Period, even if discovered after the General Warranty Period, by repairing (or replacing with new items or new materials, if necessary) any such defect at no cost to the OWNER, within a reasonable period of time, and to the OWNER's satisfaction.

**8.1.3 General Warranty is Absolute.** The only exceptions to the General Warranty will be defects or damage caused by abuse, modification or improper maintenance or operation by persons other than CONTRACTOR or CONTRACTOR's subcontractors, sub-subcontractors or suppliers; or normal wear and tear under normal usage. In all other respects the General Warranty will be absolute.

**8.2 Special Warranties.** CONTRACTOR will furnish all additional special warranties required by this Contract no later than Substantial Completion. The OWNER may require special warranties in connection with the approval of accepted equals and other substitute materials, equipment, methods, and procedures, and in connection with Work which is defective or nonconforming.

**8.3. Limitation as to Certain Equipment.** As to any equipment which the OWNER has reserved the sole right to have installed, the Warranties under this Article 8 will extend to ensure that the equipment is installed according to the Plans and Technical Provisions, and that any manufacturer or product warranties are conveyed to the OWNER; but in such instance CONTRACTOR will not be held liable for the operating performance of such equipment.

**8.4 Relation to Specific Correction Provisions and Other Remedies.** CONTRACTOR's general warranty and any additional or special warranties are not limited by CONTRACTOR's obligations to specifically correct Defective/Nonconforming Work, nor are they limited by any other remedies provided in the Contract Documents. CONTRACTOR will also be liable for any damage to property or persons (including death), including consequential and direct damages, relating to any breach of the General Warranty or any additional or special warranties required.

**8.5 Third Party Warranties.** CONTRACTOR will obtain and assign or transfer to the OWNER, all product warranties available from manufacturers or suppliers of materials to be used in the Project. CONTRACTOR will also obtain and assign or transfer to OWNER, any additional third party warranties as to materials or methods as specified in the Contract Documents. The OWNER's acceptance of any assigned warranties or guaranties will be a precondition to final payment and will not relieve CONTRACTOR of any of CONTRACTOR's guaranty or warranty obligations under this Contract.

## ARTICLE 9 – E/A’S STATUS DURING CONSTRUCTION

**9.1 Applicability.** The provisions of this Article will apply only where the Contract Documents specifically authorize a consultant of the OWNER to act as the E/A to review and modify Technical Provisions, Plans, and other technical specifications associated with the Work. In all instances in which there is no such specific authorization, the provisions of this Article will have no effect, and any authorization or delegation within the Contract Documents to the E/A, will be deemed to be to the Contract Administrator. In addition, where the Contract Documents contain language specifically authorizing a consultant of the OWNER to act as E/A, the OWNER retains the right to assign or assume such authority upon written notice to CONTRACTOR.

**9.2 The OWNER’s Sole Benefit.** The assignment, if any, of any authority, duties or responsibilities to the E/A under this Contract, or under any agreement between the OWNER and the E/A, or any undertaking, exercise or performance thereof by the E/A, is intended to be for the sole and exclusive benefit of the OWNER and not for the benefit of CONTRACTOR, subcontractor, supplier, or any other person or organization, or for any surety or employee or agent of any of them.

**9.3. CONTRACTOR Remains Responsible.** The E/A will not supervise, direct, control or have authority over or be responsible for CONTRACTOR’s means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. The E/A is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to the furnishing or performing the Work. The E/A is not responsible for CONTRACTOR’s failure to perform or furnish the Work in accordance with this Contract. Failure or omission of the E/A to discover, or object to or condemn any defective Work or material will not release CONTRACTOR from the obligation to properly and fully perform the Contract.

**9.3.1** The E/A is not responsible for the acts or omissions of CONTRACTOR, or of any subcontractor, any supplier, or of any other person or organization performing or furnishing any of the Work.

**9.3.2** If the OWNER and E/A agree, the E/A will review each Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered, but only to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, this Contract.

**9.4 Applicability to E/A’s Agents.** The limitations upon authority and responsibility set forth in this Article 9 will also apply to the E/A’s consultants, Resident Project Representative and assistants.

**9.5 Visits to Project Site.** If the OWNER and E/A agree, the E/A will make visits to the Project Site at intervals appropriate to the various stages of construction as E/A deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR’s executed Work. Based on information obtained during such visits and observations, the E/A will endeavor for the benefit of the OWNER to determine, in general, if the Work is proceeding in accordance with this Contract. The E/A will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The E/A’s efforts will be directed toward providing for the OWNER a greater degree of confidence that the completed Work will conform generally to this Contract. On the basis of such visits and on-site observations, E/A will keep the OWNER informed of the progress of the Work and will endeavor to guard the OWNER against Defective Work. The E/A’s visits and on-site observations are subject to all the limitations on the E/A’s authority and responsibility set forth in this Article 9.

**9.6 Resident Project Representative.** If the OWNER and E/A agree, E/A will furnish a Resident Project Representative to assist the E/A in providing more continuous observation of the Work. The responsibilities and authority and limitations of any such Resident Project Representative and assistants will be as provided in this Article 9 and in the Supplemental General Conditions. The OWNER may designate another representative or agent to represent the OWNER at Project Site who is not the E/A, E/A’s consultant, agent or employee.

**9.7 Clarifications and Interpretations.** The E/A may determine that written clarifications or interpretations of the requirements of the Technical Provisions (in the form of drawings or otherwise) are necessary. Such written clarifications or interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents, will be issued with reasonable promptness by the OWNER and will be binding on the OWNER and CONTRACTOR. If the OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times, the OWNER or CONTRACTOR may make a Claim therefore as provided in these General Conditions.

**9.8 Recommendations as to Defective Work.** The E/A will recommend that the OWNER disapprove or reject Work which the E/A believes to be defective, or believes will not produce a completed Project that conforms to this Contract or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by this Contract.

## **ARTICLE 10 – ACCEPTED EQUALS AND SUBSTITUTIONS**

**10.1 Accepted Equals.** Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item, the specification or description is intended to require the item named, unless the Contract Documents, in specifying the name, specifically authorize the use of functionally equivalent item through the use of terms such as “as equal,” “or equal,” or “equivalent.” For purposes herein, an item is only “functionally equivalent” if it is available at the same or lower cost, and if it is sufficiently similar to the item specified, including as to durability, warranty, acquisition time, and availability, so that no change in related Work will be required, and no change in the useful life, maintenance, repair cost, or quality of the completed work is anticipated.

**10.2 CONTRACTOR May Propose Substitutions.** CONTRACTOR may propose a substitution for any item of material or equipment, and for any means, method, technique, sequence, or procedure of construction, specified in the Contract Documents. CONTRACTOR’s will propose such substitutes at CONTRACTOR’s sole cost and expense, and at CONTRACTOR’s sole risk as to disruptions to the Critical Path of the current approved Progress Schedule. CONTRACTOR will provide OWNER sufficient data and documentation to allow the OWNER to review the proposal.

**10.3 OWNER’s Evaluation.** The OWNER will be allowed a reasonable time within which to evaluate each proposal made by CONTRACTOR pursuant to this Section. The OWNER will be the sole judge of acceptability. No accepted equal or substitute will be ordered, installed, or utilized until the OWNER’s review is complete, which will be evidenced by a Change Instrument. The OWNER may require CONTRACTOR to furnish at CONTRACTOR’s expense a special performance guarantee or other surety bond with respect to any accepted equal or substitution or for any other delay or disruption to the Critical Path of the Project Schedule attributable to any such substitution. The OWNER will not be responsible for any delay due to review time for any proposed substitution, unless such an extension is due to CONTRACTOR, consistent with the requirements of this Contract for changes and delays. The OWNER will not be responsible for increased costs associated with the review or approval of a proposed substitution, unless the increase is required as provided in association with changes and delays. In any event, no such extension or increase will be deemed provided unless specified in the Change Instrument approving the substitution.

**10.4 CONTRACTOR to Remain Responsible.** The OWNER’s acceptance of a substitution will not relieve CONTRACTOR from primary responsibility and liability for the suitability and performance of any proposed substitute item or substituted method or procedure, and will not relieve CONTRACTOR from its primary responsibility and liability for curing Defective Work and performing warranty work, which CONTRACTOR will cure and perform, regardless of any claim CONTRACTOR may choose to advance against the OWNER or manufacturer.

## **ARTICLE 11 – DELAYS AND ADJUSTMENTS TO CONTRACT TIME AND CONTRACT PRICE**

**11.1 Delay.** Delays are classified in one of the following categories:

**11.1.1** An excusable delay is a delay caused by a Force Majeure event. An excusable delay may entitle CONTRACTOR to an extension of Contract Time but not an increase in Contract Price.

**11.1.2** A compensable delay is a delay which is caused solely and exclusively by acts or omissions of the OWNER, excepting actions taken by the OWNER to protect the public health or safety or to conform to law. A compensable delay may entitle CONTRACTOR to both an extension of Contract Time and an increase in Contract Price.

**11.1.3** An unexcused delay is any delay other than an excusable or compensable delay. An unexcused delay entitles CONTRACTOR to no adjustment to Contract Time or Contract Price.

**11.2 Events Not Constituting a Delay.** The following events will not be considered an excusable delay of any kind even though they are not anticipated by CONTRACTOR, not within CONTRACTOR's control, and are not reasonably foreseeable:

**11.2.1** Events that pose no delay to items of Work on the Critical Path of the current approved Progress Schedule.

**11.2.2** Events that would not prevent CONTRACTOR from achieving Final Completion before the expiration of the Contract Time, where CONTRACTOR may otherwise accelerate other items of Work without undue expense.

**11.2.3** Weather, unless the weather is more severe than the adverse weather normally anticipated for the Project Site for the month in question, based on a generally accepted source of data such as the National Weather Service.

**11.2.4** Events, including actions of the OWNER, that impact Critical Path activity, because the activity was previously delayed due to unexcused delays.

**11.3 Notice of Delay Required.** CONTRACTOR will provide written notice of any actual or prospective delay promptly, and in no event later than ten days after the occurrence of the event giving rise to such delay. CONTRACTOR will give the notice to both the E/A and the Contract Administrator within the specified time. In the case of a continuing delay, CONTRACTOR will provide an initial notice and a further notice at each progress meeting throughout the duration of the delay. The notice will contain all of the specific information required in the following Subsection.

**11.4 Contents/Supporting Documents.** CONTRACTOR's notice of delay will identify those portions of the current approved Progress Schedule affected by the delay and will include an estimate of the cost and probable effect of the delay, if any, on the progress of the Work. Supporting documentation will include, but is not limited to:

**11.4.1** A written detailed statement of the reasons and causes for the delay;

**11.4.2** Inclusive dates of the delay;

**11.4.3** Specific trades and portions of the Work affected by the delay;

**11.4.4** Status of Work affected before commencement of the delay;

**11.4.5** Effect of the delay on available "float" time;

**11.4.6** A Critical Path Method (CPM) analysis demonstrating that the delay has affected an activity then on the Critical Path at the time of the occurrence of the delay as shown on the most current approved Progress Schedule; and

**11.4.7** If CONTRACTOR claims that the delay is an excusable delay or compensable delay, evidence that the delay was unforeseeable, beyond CONTRACTOR's control, and without the fault or negligence of CONTRACTOR or the negligence of anyone for whose acts CONTRACTOR is responsible including any subcontractor, sub-subcontractor or supplier; and in the case of a compensable delay, was caused solely and

exclusively by the acts or omissions of the OWNER (excepting actions taken by the OWNER to protect the public health or safety or to conform to law) or anyone for whose acts the OWNER is responsible, and which are unreasonable under the circumstances involved and not reasonably within the contemplation of the parties.

**11.5 Failure to Comply with Notice Requirements.** The notice required by this Article 11 operates as a condition precedent to the assertion of any claim for extension of Contract Time, increase in Contract Price, or damages by CONTRACTOR. If CONTRACTOR fails to give the OWNER timely written notice of a claim as required by this Article 11, CONTRACTOR will be deemed to have waived the claim, and the OWNER will have no further liability respecting the claim.

**11.6 Review and Adjustment of Schedules.** Upon receipt of a notice from CONTRACTOR of the occurrence of a delay complying with the requirements of this Article, the OWNER will review the current approved Progress Schedule to determine (i) whether the delay is in fact an excusable or compensable delay, and (ii) whether any adverse effects of the delay can be overcome by an adjustment in the Progress Schedule, including the application of any unused "float" time available in the Schedule. The OWNER may require CONTRACTOR to submit a more detailed Progress Schedule than previously required in order to permit the OWNER to evaluate the delay. Based on such review, CONTRACTOR will, if required by the OWNER, submit for the OWNER's approval a revised Progress Schedule, which minimizes the adverse effects of the delay.

**11.7 Limitation on Adjustments Due to Delays Generally.** No extension of the Contract Time or increase in the Contract Price will be allowed for an unexcused delay. No extension of the Contract Time or increase in the Contract Price will be made to the extent that performance is, was or would have been suspended, delayed or interrupted by another cause for which CONTRACTOR is responsible. No increase in the Contract Price will be made to the extent performance was or would have been suspended, delayed or interrupted by another cause for which the OWNER is not solely and exclusively responsible.

**11.8 Additional Limitations on Adjustments to Contract Time Due to Delays.** No extension of Contract Time will be provided where, notwithstanding a Force Majeure event or other claimed delay, CONTRACTOR may achieve Final Completion within the Contract Time through adjustments to the current approved Progress Schedule.

**11.9 Additional Limitations on Adjustments to Contract Price Due to Delays.** Any obligation on the part of the OWNER to pay CONTRACTOR for compensable delay is solely intended to reimburse CONTRACTOR for actual expense arising out of the compensable delay. No consequential damages will be allowed to CONTRACTOR in connection with any claimed delays. Damages for compensable delay will be determined by the Force Account method set forth in Subsection 13.3.2.

**11.9.1** Standby equipment costs will not be allowed during periods when the equipment would have otherwise been idle. Standby equipment time will not exceed more than eight hours per day, 40 hours per week, and 176 hours per month. Standby equipment costs will be paid at 50 percent of the applicable Rental Rate Blue Book rates and calculated by dividing the monthly rate by 176, multiplying the result by the number of standby hours and multiplying that number by the regional adjustment factor and the rate adjustment factor contained in the Blue Book. Operating costs will not be allowed.

**11.10 Liquidated Damages Due to CONTRACTOR's Delays.** Liquidated Damages, if any, are set forth in the Contract form.

**11.11 No Damages are Due to CONTRACTOR for Prevention of Early Completion.** CONTRACTOR represents that its Bid includes all costs, overhead and profit which may be incurred throughout the Contract Time, including the period between Substantial and Final Completion. Accordingly, CONTRACTOR may not make any claim for delay damages based in whole or in part on the premise that CONTRACTOR would have completed the Work prior to the expiration of the Contract Time but for any claimed delay.

**11.12 Acceleration to Avoid Delays.** If CONTRACTOR's progress is not maintained in accordance with the current approved Progress Schedule, or the OWNER determines that CONTRACTOR is not diligently proceeding with the Work or has evidence reasonably indicating that CONTRACTOR will not be able to conform to the current approved Progress Schedule, CONTRACTOR will, promptly and at no additional cost to the OWNER, take all

measures necessary to accelerate its progress to overcome the delay and ensure that there will be no further delay in the progress of the Work and notify the OWNER thereof. Any extension of working hours requires approval of the OWNER, which will not be unreasonably withheld but may be subject to reasonable conditions including payment for additional or overtime services of the OWNER the Architect/Engineer and any other applicable consultants, testing or regulatory agency costs.

## ARTICLE 12 – CHANGES

**12.1 Materially Different Site Conditions.** For purposes herein, “materially different site conditions” means conditions that are different from those indicated in the Contract Documents, that are unknown to CONTRACTOR, and that could not be reasonably anticipated based upon on the following: (i) typical soil or subsurface conditions for the area in which the Project Site is located; (ii) site visits CONTRACTOR made, or was encouraged or permitted to make by the Bid Documents, prior to Bid submission; or (iii) a careful review of any Site-Related Reports.

**12.1.1** CONTRACTOR may be entitled to an increase in Contract Time for materially differing site conditions as an excusable delay as provided in Article 11, subject to the exclusions and conditions of that article including notice requirements.

**12.1.2** CONTRACTOR may also be entitled to an increase in Contract Price for materially different site conditions, where these conditions will require additional labor or materials, or both, exceeding the amount estimated in the Schedule of Values or Bid Schedule, as applicable, by 5% or more, provided, that CONTRACTOR complies with the notice requirements in Section 12.3. In such instance, the basis for adjusting Contract Price is set forth in Section 13.3.

**12.2 Materially Different Structural Conditions (Remodeling or Renovation Contracts).** If this is a Contract for a remodeling or renovation of an existing structure and CONTRACTOR encounters materially different conditions in the structure (not as to the Site or subsurface conditions) from those indicated in the Contract Documents provided by the OWNER as part of the Bid or Proposal Documents, CONTRACTOR will give written notice thereof to the OWNER and the E/A promptly before conditions are disturbed and in no event later than ten days after first observing such conditions. Failure of CONTRACTOR either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within ten days of first observing such conditions is conclusively deemed a waiver of any claim relating to such conditions.

**12.2.1 Investigation and Determination.** The E/A will promptly investigate any alleged differing conditions as to the structure (but not as to the Site or subsurface conditions) and provide a written report of its findings to the OWNER. If the OWNER finds that the conditions of the structure differ materially and require a change in the Work and cause an increase or decrease in CONTRACTOR’s cost of, or time required for, performance of any part of the Work, the OWNER may make an adjustment in the amount payable to CONTRACTOR or the Contract Time, as applicable. If the OWNER determines that the conditions of the structure are not materially different or that no change in the terms of the Contract is justified, the OWNER will so notify CONTRACTOR in writing.

### **12.3 Constructive Changes and Disputed Adjustments.**

**12.3.1 Notice to the OWNER and E/A.** CONTRACTOR will advise the OWNER and the E/A in writing promptly and in no event later than ten days after (i) issuance of any interpretation, clarification, instruction, direction or order whether orally or in writing from either the OWNER or the E/A, or (ii) the occurrence of any event or discovery of any condition (including any condition as provided in Section 12.1 and if applicable, 12.2), which CONTRACTOR believes or has reason to believe entitles CONTRACTOR to an increase in the amount payable to CONTRACTOR or an extension of the Contract Time; and except in the case of an emergency involving possible loss of life or bodily injury or significant property damage, the required written notice will be provided prior to proceeding with the Work. Failure of CONTRACTOR to provide such notice constitutes an acceptance of the interpretation, clarification, instruction, direction, order, event, or condition without adjustment to the Contract Price or the Contract Time and a conclusive waiver of any claim relating to the same. In order to be valid, a claim for an adjustment of Contract Price or Contract Time must contain the specific adjustment requested and must be supported by a detailed explanation of the basis for the claim. In addition to be valid, a claim for increase in

Contract Time must be supported by the documentation specified in Subsection 11.4, and a claim for an increase in the Contract Price must be documented and calculated as specified in Subsection 13.3.2. Failure of CONTRACTOR to object as and when specified in this Subsection is deemed an acceptance of interpretation, clarification, instruction, direction or order as issued and a waiver of any claim by CONTRACTOR to any adjustment to the Contract Price or the Contract Time.

**12.3.2 Disputed Adjustments.** All disputed adjustments under this Contract will be determined in accordance with the Contract, Article IX if, as conditions precedent thereto, CONTRACTOR has timely provided all notices and objections required under the terms of the Contract.

## ARTICLE 13 - CHANGE INSTRUMENTS

### 13.1 Introduction.

**13.1.1** The OWNER may issue a Change Instrument to require changes in the Work without invalidating the Contract.

**13.1.1.1** A Field Directive may be issued to require minor changes in the Work that, in the OWNER's view, do not change the Scope of Work, present a delay, or require an adjustment to Contract Time or Contract Price. Examples of such situations where Field Directives may be appropriate are unanticipated field conditions or unavailability of specified materials and equipment.

**13.1.1.2** All other changes to the Work will require the issuance of a Change Order issued in conformance with these General Conditions.

**13.2 Change Order Required for Contract Time and Contract Price Adjustments.** Adjustments to Contract Time or Contract Price will be granted only through a properly-issued Change Order.

**13.3 Change Orders Adjusting Contract Price.** All Change Orders adjusting Contract Price will be invalid unless approved in accordance with the authority provided by the Purchasing Code.

**13.3.1 Basis for Contract Price Adjustment.** Subject to any federal procurement standards that may apply if the Project is a federally funded project, in which case the standards will govern to the extent of conflict, a Change Order may provide for an adjustment in the Contract Price based only on one of the following methods:

.1 Unit Prices as stated in the Bid Schedule.

.2 A fixed not-to-exceed or lump sum agreed to by the OWNER and CONTRACTOR and stated in the Change Order, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to estimated costs of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of 10% if the Work is performed by CONTRACTOR, or 5% if the Work is performed by a subcontractor or sub-subcontractor. The subcontractors' or sub-subcontractors' overhead and profit in turn will not exceed 10%. The total percentage of overhead and profit payable by the OWNER (to both CONTRACTOR and all sub tier subcontractors), regardless of the sub-tier which performs the work, will not exceed 15%.

.3 Actual costs, properly itemized, plus a profit factor, using the Force Account method set forth in Section 13.3.2.

.4 In the absence of an agreement between the OWNER and CONTRACTOR, the OWNER will determine the amount of the Contract Price Adjustment using any of the methods outlined in Subsections 13.3.1.1 – 13.3.1.3, above, whichever will result in the lowest cost to the OWNER.

.5 No cost will be included in a Change Order for time spent preparing the Change Order, nor will costs be included for an estimate of time to negotiate the Change Order costs for machinery, tools, or equipment.

**13.3.2 Force Account Method for Contract Price Increases.** Before using the Force Account method provided for herein, the OWNER and CONTRACTOR agree to negotiate a Change Order using the other methods identified in Subsection 13.3.1, above, as appropriate, to determine the adjustment in the Contract Price. If neither of these methods can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Price, then the change in the Work will be performed by a Change Order using the Force Account method, and payment will be made as follows:

**13.3.2.1** For all personnel, CONTRACTOR will receive actual field cost wage rates for each hour that said personnel are actually engaged in such Work, as substantiated by its certified payroll, to which will be added an amount equal to 15% of the sum thereof as compensation for CONTRACTOR's and any effected subcontractor's total overhead and profit. No separate charge will be made by CONTRACTOR or its subcontractor(s) for organization or overhead expenses. CONTRACTOR will also receive an amount equal to 55% of the wages paid personnel, excluding the 15% compensation provided above, for CONTRACTOR's and any effected subcontractor's cost of premiums on liability insurance, workers' compensation insurance, social security and unemployment insurance. The actual cost of CONTRACTOR's bond(s) on the extra Work will be paid based on invoices from surety. No charge for superintendence will be made unless considered necessary and ordered by the OWNER.

**13.3.2.2** CONTRACTOR will receive the actual cost, including freight charges, of the materials used and installed on such Work, to which costs will be added a sum equal to 20% thereof as compensation for CONTRACTOR's and any effected subcontractor's total overhead and profit. In case material invoices indicate a discount may be taken, the actual cost will be the invoice price minus the discount.

**13.3.2.3** For machinery, trucks, power tools, or other similar equipment (the "equipment") agreed to be necessary by the OWNER and CONTRACTOR, the OWNER will allow CONTRACTOR the applicable daily, weekly or monthly rate as given in the latest edition of the "Rental Rate Blue Book" as published by EquipmentWatch (1-800-669-3282) for each hour that said equipment is in use on such work, which rate includes the cost of fuel, lubricants and repairs. The established equipment rates will be paid for each hour that the equipment is utilized in the Work. If the equipment is used intermittently during the Work, full payment for an eight-hour day will be made if the equipment is not idle more than four hours of the day. If the equipment is idle more than four hours in a day, then payment will be made only for the actual hours worked. No additional compensation will be allowed on the equipment for CONTRACTOR's or any affected subcontractor's overhead and profit. The OWNER may accept an actual rental invoice in lieu of the method of calculation set forth in this Paragraph for equipment rented exclusively for Force Account Work or for equipment not included in the Rental Rate Blue Book.

**13.3.2.4** The compensation provided for herein, will be received by as payment in full for work done pursuant to the Change Order and will include use of small tools, and total overhead expense and profit. CONTRACTOR and the OWNER will compare records of work done by Change Order at the end of each day. Copies of these records will be made upon forms provided for this purpose by the OWNER and signed by both the OWNER and CONTRACTOR, with one copy being retained by the OWNER and one by CONTRACTOR. Refusal by CONTRACTOR to sign these records within two working days of presentation does not invalidate the accuracy of the record.

**13.3.3 Additional Performance Security in Conjunction with Change Order.** The CITY may require CONTRACTOR to increase or supplement previously-provided Performance Security to cover any additional costs of performing services required under a Change Order that increases Contract Price, commensurate with such additional cost. In such instance, any compensation due CONTRACTOR for CONTRACTOR's cost of providing such increase or supplement will be reflected in the Change Order or otherwise borne by CONTRACTOR.

**13.4 Payment for Work Covered by Change Order.** Additional monies due CONTRACTOR pursuant to a valid Change Order providing for an adjustment to the Contract Price, will be paid for in accordance with the



Progress Payment schedule established by the Contract, in which case payment will be subject to retainage requirements set forth in the Contract; or at the time of Final Payment.

**13.5 Absence of Proposed Adjustments.** If a Change Instrument is silent as to any adjustment to the Contract Price or the Contract Time, it will be conclusively presumed that none is intended and none will be allowed unless CONTRACTOR files an objection as and when specified in the following Subsection.

**13.6 Action upon Receipt of Change Instrument.** Upon receipt of a Change Instrument, CONTRACTOR will promptly proceed with the change in the Work involved.

**13.6.1** CONTRACTOR will advise the OWNER in writing, promptly and in any event no later than ten days after issuance of the Unilateral Change Instrument, of CONTRACTOR's objection (i) to the amount or method, if any, provided for in the Change Instrument for adjustment to Contract Price or Contract Time, or (ii) to the absence of any adjustment to the Contract Price or Contract Time. In order to be valid, a claim for an adjustment of Contract Price or Contract Time, must contain the specific adjustment requested, must be supported by a detailed explanation of the basis for the claim. In addition, to be valid a claim for increase in Contract Time must be supported by the documentation specified in Subsection 11.4, and a claim for an increase in the Contract Price must be documented and calculated as specified in Subsection 13.3.1. Failure of CONTRACTOR to object as and when specified in this Subsection is deemed an acceptance of the Unilateral Change Order as issued and a waiver of any claim by CONTRACTOR to any adjustment to the Contract Price or the Contract Time.

**13.7 Waiver of Claim.** Except for emergencies involving possible loss of life or bodily injury or significant property damage, CONTRACTOR's commencement of the Work that is subject to a Change Instrument will constitute a complete waiver by CONTRACTOR as to such claim regardless of whether CONTRACTOR has within the ten-day period notified the OWNER of a claim consistent with the requirements of Subsection 13.6.1.

**13.8 OWNER's Right to Use Third Parties for Additional Work.** If the OWNER and CONTRACTOR are unable to negotiate the terms of a Change Order for the performance of additional Work, the OWNER may, at its election, perform such additional Work with its own forces or with another CONTRACTOR and such work will be considered "Other Work."

**13.9 OWNER's Right to Accelerate Schedule.** The OWNER reserves the right to issue a Change Instrument to accelerate the Work which may be subject to an appropriate adjustment, if any, in the Contract Price. If the OWNER requires an acceleration of the Project Schedule and no adjustment is made in the Contract Price, or if CONTRACTOR disagrees with any adjustment made, any claim an adjustment must comply with the requirements of Subsection 13.6.1 or be deemed to be conclusively waived.

#### **ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTIONS, REMOVAL AND ACCEPTANCE OF DEFECTIVE WORK**

**14.1 Access to Work.** The OWNER, including the Contract Administrator and other employees and agents, including E/A and E/A's consultants, independent testing laboratories, and governmental agencies having jurisdiction, will each have access to the Work at reasonable times for observing, inspecting and testing. CONTRACTOR will provide them proper and safe conditions for such access, and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

#### **14.2 Tests and Inspections.**

**14.2.1** CONTRACTOR will give timely notice of readiness of the Work for all required inspections, tests or approvals, and will cooperate with inspection and testing personnel to facilitate required inspections or tests. All testing will be performed by the CONTRACTOR. Only verification testing will be performed by the CITY. CONTRACTOR is not required to enter test results into MAC.

**14.2.2** The OWNER will employ and pay for services of an independent testing laboratory to perform all inspections, tests or approvals required by the Contract Documents except:

- .1 For inspections, tests or approvals covered by Paragraph 14.2.3 below;
- .2 That costs incurred with tests or inspections conducted pursuant to Paragraph 14.3.3 below will be paid as provided in Paragraph 14.3.3;
- .3 For re-inspecting or re-testing Defective Work; and
- .4 As otherwise specifically provided in the Contract Documents. All testing laboratories will meet the requirements of ASTM E-329.

**14.2.3** If Legal Requirements specifically require any Work (or part thereof) to be inspected, tested, or approved by an employee or other representative of a governmental or related authority, CONTRACTOR will assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith and furnish the OWNER the required certificates of inspection or approval.

**14.2.4** CONTRACTOR will also be responsible for arranging and obtaining and will pay all costs in connection with any inspections, tests or approvals required for the OWNER's and E/A's review of materials or equipment to be incorporated in the Work, or of materials, mix designs or equipment submitted for review prior to CONTRACTOR's purchase thereof for incorporation in the Work.

### **14.3 Uncovering Work.**

**14.3.1** If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of the Contract Administrator, or if any Work is covered contrary to the written request of the Contract Administrator, it will, if requested by the Contract Administrator, be uncovered and recovered at CONTRACTOR's expense.

**14.3.2** Uncovering Work as provided in Paragraph 14.3.1 above, will be at CONTRACTOR's expense unless CONTRACTOR has given the OWNER timely notice of CONTRACTOR's intention to cover the same and the OWNER has not acted within five working days to such notice.

**14.3.3** If the OWNER considers it necessary or advisable that covered Work be observed, inspected or tested, CONTRACTOR will uncover, expose or otherwise make available for observation, inspection or testing that portion of the Work in question, furnishing all necessary labor, material and equipment. If the OWNER determines that such Work is defective, CONTRACTOR will pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and the OWNER will be entitled to an appropriate decrease in the Contract Price, and may make a Claim therefore as provided in these General Conditions. However, if such Work is not found to be defective, CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and CONTRACTOR may make a Claim therefore as provided in these General Conditions.

### **14.4 The OWNER May Stop the Work.**

**14.4.1** If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to this Contract, the OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the OWNER to stop the Work will not give rise to any duty on the part of the OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

**14.4.2** If CONTRACTOR fails to correct Defective Work or submit a satisfactory plan to take corrective action, with procedure and time schedule, the OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until cause for such order has been eliminated, or take any other action permitted by this Contract. A notice to stop the Work, based on defects, will not stop calendar or Working Days charged to the Project.

**14.5 Correction or Removal of Defective Work.** If required by the OWNER, CONTRACTOR will promptly, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or, if the Work has

been rejected by the OWNER, remove it from Project Site and replace it with Work that is not defective. CONTRACTOR will correct or remove and replace Defective Work, or submit a plan of action detailing how the deficiency will be corrected, within the time frame identified in the notice of Defective Work. CONTRACTOR will pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

**14.6 Correction Required.** If within the Warranty Period, or such longer period of time as may be prescribed by Legal Requirements or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work, including Work performed after the Substantial Completion date, is found to be defective, CONTRACTOR will promptly, without cost to the OWNER and in accordance with the OWNER's written instructions:

**14.6.1** Correct such Defective Work, or, if it has been rejected by the OWNER, remove it from Project Site and replace it with Work that is not defective, and

**14.6.2** Satisfactorily correct or remove and replace any damage to other Work or the work of others resulting from the Defective Work.

If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the OWNER may have the Defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR. The warranty period will be deemed to be renewed and recommenced in connection with the completed items of Work requiring correction.

**14.7 Coordination with OWNER.** If correction of Defective Work will affect the function or use of the facility, CONTRACTOR will not proceed with correction of Defective Work without prior coordination and approval of the OWNER.

**14.8 Acceptance of Defective Work.** If, instead of requiring correction or removal and replacement of Defective Work, the OWNER decides to accept it, the OWNER may do so. CONTRACTOR will pay all claims, costs, losses and damages attributable to the OWNER's evaluation of and determination to accept such Defective Work. For purposes of this Section, the OWNER's acceptance of sample materials or equipment will not be deemed to be acceptance of Defective Work. If any such acceptance occurs prior to recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents and compensating the OWNER for the diminished value of the Defective Work. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to the OWNER after a calculation by the OWNER of the diminution in value of the Defective Work.

**14.9 The OWNER May Correct Defective Work.** If CONTRACTOR fails within a reasonable time after written notice of the OWNER to correct Defective Work, or to remove and replace rejected Work, or if CONTRACTOR fails to perform the Work in accordance with this Contract, or if CONTRACTOR fails to comply with any other provision of this Contract, the OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. If, in the opinion of the Contract Administrator, significant progress has not been made during this seven-day period to correct the deficiency, the OWNER may exercise any actions necessary to remedy the deficiency. In exercising the rights and remedies under this paragraph, the OWNER will proceed expeditiously. In connection with such corrective and remedial action, the OWNER may exclude CONTRACTOR from all or part of Project Site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, and incorporate in the Work all materials and equipment stored at Project Site or for which the OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR will allow the OWNER, its agents and employees, the OWNER's other contractors, E/A and E/A's consultants access to Project Site to enable the OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by the OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions to this Contract with respect to the Work. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's Defective Work. CONTRACTOR will not be allowed an

extension of the Contract Times (or Milestones), or claims of damage because of any delay in the performance of the Work attributable to the exercise by the OWNER of the OWNER's rights and remedies hereunder.

**14.10 Testing and Inspections Outside of Working Hours.** This Contract contemplates that all testing and inspections will be done during Working Hours as defined herein. Whenever the OWNER is required to test or inspect outside of Working Hours, on weekends, or during Holidays observed by the OWNER, the OWNER will be entitled to a reduction in the Contract Price to the extent of any overtime costs incurred by the OWNER, unless such testing or inspection is required to be performed at that time due to:

**14.10.1** Emergency conditions that are not the fault of CONTRACTOR, and subcontractors, sub-subcontractors, suppliers, or other persons for whom CONTRACTOR is responsible;

**14.10.2** A Force Majeure event, the OWNER's disruption, or other events which, pursuant to this Contract, would otherwise require an extension of the Contract Time.

**14.11 CONTRACTOR Remains Responsible for the Work.** The following will not be deemed to be a release of CONTRACTOR's obligation to perform the Work in accordance with this Contract:

**14.11.1** Observations by the E/A;

**14.11.2** The issuance of a Certificate of Substantial Completion or any payment by the OWNER to CONTRACTOR under this Contract;

**14.11.3** Partial use or occupancy of the Work or any part thereof by the OWNER;

**14.11.4** Any acceptance by the OWNER or any failure to do so;

**14.11.5** Any review of a Shop Drawing or sample submittal;

**14.11.6** Any inspection, test or approval by others; or

**14.11.7** Any correction of Defective Work by the OWNER.

## **ARTICLE 15 – PROGRESS PAYMENTS, PARTIAL UTILIZATION AND FINAL COMPLETION**

**15.1 General Method of Payment.** Payment of the Contract Price will be made in a series of Progress Payments and after Final Completion, a Final Payment, in accordance with this Article.

**15.1.1** If CONTRACTOR has provided Payment and Performance Bonds, no payment will be made unless and until CONTRACTOR records the bonds and provides the OWNER certified copies of the recorded bonds in accordance with Florida Statutes Section 255.05(b).

**15.2 Application for Payment.** CONTRACTOR may submit to the OWNER, no more than once a month and no sooner than 30 days following commencement of the Work, an application for payment for those portions of the Work completed as of the date of the application. The OWNER may, by notice, designate a specific day of each month for submission of the application for payment. Each application for payment will be in a form acceptable to the OWNER, and will include the following documentation and information:

**15.2.1** The current approved Progress Schedule;

**15.2.2** If applicable, the Schedule of Values;

**15.2.3** Unless CONTRACTOR has provided payment and performance bonds and recorded them in the public records as provided in Florida Statutes Section 255.05, releases of liens from subcontractors or suppliers;

**15.2.4** CONTRACTOR's written certification (i) as to the value of the Work completed, (ii) that partial or final waivers of lien have been received covering all such Work, (iii) and that all prior Progress Payments have been properly applied to the payment or reimbursement of the costs with respect to which they were paid;

**15.2.5** If payment is requested on the basis of materials or equipment not incorporated in the Work but delivered and suitably stored at Project Site or at another location agreed to in writing, the application for payment by such bills of sale, data, and other procedures satisfactory to the OWNER substantiating the OWNER's title to such materials or equipment or otherwise protecting the OWNER's interest;

**15.2.6** A completed Minority and Women-Owned Business Enterprise (MBE/WBE) Usage Report, using forms provided by the OWNER. CONTRACTOR will complete all blank spaces shown on these Report forms. If no amounts have been paid to MBE/WBE subcontractors, the completed form will so indicate; and

**15.2.7** The consent of the surety, if any, to the requested payment.

Each application for payment will be deemed to be a warranty and guarantee by CONTRACTOR that title to all Work, materials and equipment covered by the application, whether incorporated in the Project or not, will pass to the OWNER free and clear of all liens no later than the time of payment to CONTRACTOR.

**15.3 Review of Application for Payment.** As soon as practicable after receipt of an application for Payment, and within the 20-day period following receipt of the application as provided by the Prompt Payment Act, the OWNER will approve, partially approve, or reject the application. The OWNER will provide written notice if payment is rejected or partially rejected, specifying the deficiency in the application for payment and the action necessary to make the request proper. In addition to rejecting payment of all or a portion of the application for failure to comply with submittal requirements referenced above, the OWNER will have the right to reject all or a portion of the application for any of the following reasons:

**15.3.1** Defective Work not remedied;

**15.3.2** Third party Claims filed or reasonable evidence indicating probable filing of such Claims;

**15.3.3** Unless CONTRACTOR has provided payment and performance bonds and complied procedurally with Florida Statutes Section 255.05, failure of CONTRACTOR to make payments properly to subcontractor or for labor, materials or equipment;

**15.3.4** Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;

**15.3.5** Damage to the OWNER or another CONTRACTOR;

**15.3.6** Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

**15.3.7** Failure of CONTRACTOR to submit a Schedule of Values in accordance with the Contract Documents, if one is required;

**15.3.8** Failure of CONTRACTOR to submit a submittal schedule in accordance with the Contract Documents;

**15.3.9** Failure of CONTRACTOR to submit and update a Progress Schedule in accordance with the Contract Documents;

**15.3.10** Failure of CONTRACTOR to maintain a record of changes on drawings and documents;

**15.3.11** Failure of CONTRACTOR to maintain weekly payroll reports and, as applicable, provide copies of reports in a timely manner upon request of the OWNER;

**15.3.12** CONTRACTOR's neglect or unsatisfactory prosecution of the Work, including failure to clean up;  
or

**15.3.13** CONTRACTOR's failure to comply with the submittal requirements of Section 15.2, above, or with any other provision of this Contract.

If any portion of the application is rejected the OWNER will provide CONTRACTOR a written notice as to the reasons for rejection, within the time frame provided in the Prompt Payment Act. CONTRACTOR will then make the necessary corrections and re-submit the application or portion of application rejected.

**15.4 Progress Payments.** The OWNER will make payment on an approved or partially approved application, less amounts set aside for retainage within the deadlines provided by the Prompt Payment Act. If CONTRACTOR and the OWNER disagree on the basis or amount of the payment, or if CONTRACTOR is unwilling to make the necessary corrections or modifications and re-submit the Request as to those items rejected by the OWNER, then the OWNER may approve and process the Request by making such adjustments thereto as the OWNER deems appropriate so that CONTRACTOR receives without delay, payment of the amount determined by the OWNER to have been earned and owing to CONTRACTOR.

**15.5 Amounts Withheld from Progress Payments.** The OWNER will withhold an amount from each such approved progress payment, as follows:

**15.5.1** If the Contract Price is \$200,000 or more, the amount of retainage will be determined by the Prompt Payment Act, which as of the Effective Date provides for a 10% retainage until 50-Percent Completion, and a 5% retainage thereafter.

**15.5.2** In all other instances, the amount of retainage will be ten percent for each progress payment.

Subject to any limitations that may be imposed by the Prompt Payment Act if applicable, the OWNER will hold all retainage until Final Payment. However, if the Work is near Substantial or Final Completion and delay occurs due to no fault or neglect of CONTRACTOR, the OWNER may pay a portion of the retained amount to CONTRACTOR. CONTRACTOR, at the OWNER's option, may be relieved of the obligation to complete the Work and thereupon, CONTRACTOR will receive payment of the balance due for the work completed and accepted, subject to the conditions applicable to OWNER's termination of work without cause.

**15.6 Delayed Payments.** Should the OWNER fail to make payment to CONTRACTOR of the amount approved for any application for payment within the time frames provided in the Prompt Payment Act, the OWNER will pay to CONTRACTOR, in addition to amount approved, interest thereon at the rate specified in the Act, from date due until fully paid, which will fully liquidate any injury to CONTRACTOR growing out of such delay in payment.

**15.7 Substantial Completion.**

**15.7.1** When CONTRACTOR considers that the Work, or a portion thereof which the OWNER agrees to accept separately, is substantially complete, CONTRACTOR will notify the OWNER and request a determination as to whether the Work or designated portion thereof is substantially complete. If the OWNER does not consider the Work substantially complete, the OWNER will notify CONTRACTOR giving reasons therefore. After performing any required Work, CONTRACTOR will then submit another request for the OWNER to determine Substantial Completion. If the OWNER considers the Work substantially complete, the OWNER will prepare and deliver a certificate of Substantial Completion which will establish the date of Substantial Completion, will include a punch list of items to be completed or corrected before Final Payment, will establish the time within which CONTRACTOR will finish the punch list, and will establish responsibilities of the OWNER and CONTRACTOR for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of CONTRACTOR to complete all Work in accordance with this Contract. The Work will not be deemed to be substantially or finally complete until any certificates of occupancy required to occupy the Project are issued. The OWNER and CONTRACTOR will both sign the certificate of Substantial Completion, to evince acceptance of the responsibilities assigned to them in such certificate.

**15.8 Partial Utilization.** The OWNER will have the option to use any portion of the Work prior to Substantial Completion of the Project where:

**15.8.1** The Contract Documents specifically provide for such portion to be partially utilized prior to Substantial Completion; or

**15.8.2** Upon the OWNER's request, if CONTRACTOR agrees and, upon joint inspection, the parties agree that the portion of the Work in question is Substantially Complete. In such instance, the OWNER will issue a certificate of Substantial Completion, attaching thereto a punch list of items to be completed or corrected before Final Payment and fixing the responsibility between the OWNER and CONTRACTOR for maintenance, heat and utilities as to that part of the Work.

The OWNER will have the right to exclude CONTRACTOR from any part of the Work which is so certified to be Substantially Complete but the OWNER will allow CONTRACTOR reasonable access to complete or correct items on the punch list.

**15.9 Final Inspection and Final Completion.** CONTRACTOR will provide the OWNER the Notice of Completion sufficiently in advance of the Completion Date to allow for scheduling of the final inspection and for completion or correction of all Punch List Work before the Completion Date. Upon receipt of CONTRACTOR's Notice of Completion, the OWNER will make a review of the Work and notify CONTRACTOR in writing of all Punch List Work, if any, to be completed or corrected. Following CONTRACTOR's completion or correction of all Punch List Work, the OWNER again review the Work and prepare and deliver to CONTRACTOR either a written notice of additional Punch List Work to be completed or corrected or a written Certificate of Final Completion, signifying final acceptance of the Work.

**15.9.1** If the sole remaining unfinished item to complete the Work is the reestablishment of vegetation, at the OWNER's option the OWNER may issue a Certificate of Final Completion on the condition that CONTRACTOR executes a re-vegetation letter, with letter of credit or other guarantee in form and amount satisfactory to the OWNER, to ensure completion of this item. This Work will be accomplished within 120 days of the date of Final Completion of the Work. When permanent erosion control has been established, the OWNER will initiate an inspection for final acceptance of the erosion controls. If the re-vegetation is not completed within the 120 days, the OWNER, at its option, may complete the Work using the posted guarantee.

**15.9.2** In all other instances, the OWNER will only be obligated to issue a Certificate of Final Completion accepting the Work as finally complete, when the whole and all parts thereof will have been completed to the satisfaction of the OWNER in full compliance with this Contract.

**15.10 Final Application for Payment.** As soon as practical after the OWNER's issuance of the Certificate of Final Completion, CONTRACTOR will submit to the OWNER a properly completed application for Final Payment in the form approved or provided by the OWNER. The application will include or attach the following:

**15.10.1** Three complete manuals containing all maintenance and operating instructions, warranties, and other associated documents for equipment or other materials that have been installed or otherwise included in the Work;

**15.10.2** Record documents (as provided in Paragraph 6.11.2 of these General Conditions);

**15.10.3** Unless CONTRACTOR has provided payment and performance bonds and procedurally complied with Florida Statutes, Section 255.05:

**15.10.3.1** Legally effective final releases or waivers of liens from CONTRACTOR, and from all subcontractors and sub-subcontractors which performed services for CONTRACTOR and all suppliers of material or equipment to CONTRACTOR;

**15.10.3.2** An affidavit that all of CONTRACTOR's debts, and claims, including from all subcontractors, subcontractors, and suppliers in connection with the Work, have been paid or otherwise satisfied;

**15.10.4** Complete and legally effective releases or waivers satisfactory to the OWNER of all claims other than claims of subcontractors, Sub-subcontractors, and suppliers, filed in association with the Work;

**15.10.5** The consent of the surety, if any, to final payment;

**15.10.6** Non-Use of Asbestos Affidavit (After Construction);

**15.10.7** Certificate evidencing that required insurance will remain in force after final payment and through the warranty period; and

**15.10.8** Any other documentation required pursuant to this Contract.

**15.11 If Final Application is Rejected.** If the OWNER rejects the request for Final Payment, the OWNER will provide CONTRACTOR written notice stating the reasons therefore within the time required by the Prompt Payment Act.

**15.12 Final Payment; Waiver of Claims.** Final Payment will be deemed to have taken place when CONTRACTOR or any of its representatives negotiates the OWNER's final payment check, whether labeled final or not, for cash or deposits check in any financial institution for its monetary return. The making and acceptance of Final Payment will constitute:

**15.12.1** A waiver of claims by the OWNER against CONTRACTOR, except claims arising from unsettled claims, from Defective Work appearing after final inspection, from failure to comply with this Contract or the terms of any warranty specified therein, or from CONTRACTOR's continuing obligations under this Contract; and

**15.12.2** A waiver of all claims by CONTRACTOR against the OWNER other than those which were made in writing through the date that the check for final payment was issued and which are unsettled.

**15.13 Partial Final Payment in Extenuating Circumstances.** If the OWNER determines that after CONTRACTOR has achieved Substantial Completion, Final Completion is materially delayed through no fault of CONTRACTOR, the OWNER may without terminating this Contract, make payment of balance due for that portion of the Work fully completed and accepted. Such payment will be made under the terms and conditions governing Final Payment, except that it will not constitute a waiver of claims by the OWNER, and will not cause a transfer of title or relieve CONTRACTOR for responsibility for the Substantially Completed Work.

## **ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION**

**16.1 The OWNER May Suspend Work Without Cause.** At any time and without cause, the OWNER may suspend the Work or any portion thereof for a period of not more than 90 days by written notice to CONTRACTOR which will fix the date on which the Work will be resumed. CONTRACTOR will resume the Work on the date so fixed. CONTRACTOR will be allowed an adjustment in the Contract Price or an extension of the Contract Time, or both, directly attributable to any such suspension if CONTRACTOR makes an approved Claim for such an adjustment as provided herein.

**16.2 The OWNER May Terminate Without Cause.** Upon seven days' notice to CONTRACTOR, the OWNER may, without cause and without prejudice to any right or remedy of the OWNER, elect to terminate the Contract. In such case, CONTRACTOR will be paid for completed and acceptable Work executed in accordance with this Contract prior to the date of termination, and if the Contract Price is **NOT** based on unit prices, the following:

**16.2.1.1** Reasonable demobilization costs;

**16.2.1.2** Reasonable anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity; and



**16.2.1.3** All claims incurred in settlement of terminated contracts with subcontractor and others, including for anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity. CONTRACTOR agrees to negotiate in good faith with subcontractors and others to mitigate the OWNER's cost.

### **16.3 The OWNER May Terminate With Cause.**

**16.3.1** Upon the occurrence of any one or more of the following events:

- .1 If CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents
- .2 If CONTRACTOR disregards or fails to comply with Legal Requirements;
- .3 If CONTRACTOR disregards the authority of the Contract Administrator or the City Manager;
- .4 If CONTRACTOR makes fraudulent statements;
- .5 If CONTRACTOR fails to maintain a work force adequate to accomplish the Work within the Contract Time;
- .6 If CONTRACTOR fails to make adequate progress and endangers successful completion of the Contract; or
- .7 If CONTRACTOR otherwise materially breaches the Contract;

The OWNER may, after giving CONTRACTOR (and the surety, if any) seven days' notice terminate the Contract. The OWNER, at its option, may proceed with negotiation with surety for completion of the Work. Alternatively, the OWNER may under these circumstances exclude CONTRACTOR from the Project Site and take possession of the Work (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at Project Site or for which the OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as the OWNER may deem expedient. In such case CONTRACTOR will not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by the OWNER arising out of or resulting from completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses and damage exceed such unpaid balance, CONTRACTOR or surety will pay the difference to the OWNER. If a termination for cause is found to be wrongful, the termination will be converted to a termination without cause, and CONTRACTOR's remedy for wrongful termination is limited to the recovery of the payments permitted for termination without cause.

**16.3.2** Where CONTRACTOR's services have been so terminated by the OWNER, the termination will not affect any rights or remedies of the OWNER against CONTRACTOR and surety then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by the OWNER will not release CONTRACTOR from liability.

**16.4 CONTRACTOR May Stop Work or Terminate.** If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than 90 days by the OWNER or under an order of court or other public authority, or (except during disputes) the Contract Administrator fails to forward for processing any mutually acceptable Application for Payment within 30 days after it is submitted, or (except during disputes) the OWNER fails for 60 days after it is submitted to pay CONTRACTOR any sum finally determined by the OWNER to be due, then CONTRACTOR may, upon seven days' written notice to the OWNER, and provided the OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from the OWNER payment on the same terms as if OWNER terminated without cause pursuant to this Contract. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) the Contract Administrator has failed to forward for processing any mutually acceptable Application for Payment within 30 days after it is submitted, or (except during disputes) the OWNER has failed for 60 days after it is submitted to pay CONTRACTOR any sum finally determined by the OWNER to be due, CONTRACTOR may upon seven days' written notice to the OWNER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of

this Section are not intended to preclude CONTRACTOR from making a Claim for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this Section.

**16.5 Discretionary Notice to Cure.** In its complete discretion, the OWNER may, but is not required to, provide a Notice to Cure to CONTRACTOR and its surety to cure any of the conditions constituting a breach of Contract or an anticipatory breach of contract and, if required by the OWNER, to attend a meeting with the OWNER, regarding the Notice to Cure, the event of default or the anticipatory breach of contract. The Notice to Cure will set forth the time limit in which the cure is to be completed or commenced and diligently prosecuted. Upon receipt of any Notice to Cure, CONTRACTOR will prepare a report describing its program and measures to affect the cure of the event of default or anticipatory breach of contract within the time required by the Notice to Cure. The CONTRACTOR's report will be delivered to the OWNER at least three days prior to any requested meeting with the OWNER and surety.

**16.6 Bankruptcy.** If CONTRACTOR declares bankruptcy or is adjudged bankrupt or makes an assignment for the benefit of creditors or if a receiver is appointed for the benefit of creditors or if a receiver is appointed by reason of CONTRACTOR's insolvency, CONTRACTOR may be unable to perform this Contract in accordance with the Contract requirements. In such an event, the OWNER may demand CONTRACTOR or its successor in interest provide the OWNER with adequate assurance of CONTRACTOR's future performance in accordance with the terms and conditions of the Contract. If CONTRACTOR fails to provide adequate assurance of future performance to the OWNER's reasonable satisfaction within ten days of such a request, the OWNER may terminate the Contract for cause or without cause, as set forth above. If CONTRACTOR fails to provide timely adequate assurance of its performance and actual performance, the OWNER may prosecute the Work with its own forces or with other contractors on a time and material or other appropriate basis and the cost of which will be charged against the balance of the Contract Price otherwise due to CONTRACTOR.

**16.7 Duty to Mitigate.** If the OWNER terminates this Contract or suspends CONTRACTOR's work, CONTRACTOR agrees to and will take all reasonable actions to mitigate its damages and any and all claims which may be asserted against the OWNER.

**16.8 Responsibility during Demobilization.** While demobilizing, CONTRACTOR will take all necessary and reasonable actions to preserve and protect the Work, the Project Site and other property of the OWNER or others at the Project Site.

**16.9 CONTRACTOR to Remove Equipment.** In the case of termination of this Contract before completion for any cause whatsoever, CONTRACTOR, if notified to do so by the OWNER, will promptly remove any part or all of his equipment or supplies from the property of the OWNER; failing to, the OWNER will have the right to remove such equipment and supplies at the expense of CONTRACTOR.

**16.10 CONTRACTOR to Clean Up Project Site.** If either OWNER or CONTRACTOR terminates the Contract before Substantial or Final Completion, CONTRACTOR will leave the Project Site in a clean condition as if Final Completion had been achieved, unless OWNER directs otherwise; and if CONTRACTOR fails to comply clean up the Project Site as required, the OWNER may do so and the cost thereof will be charged against CONTRACTOR.

***END OF GENERAL CONDITIONS SECTION***

## **SUPPLEMENTAL GENERAL CONDITIONS**

### **SGC1. ADDITIONAL NPDES REQUIREMENTS.**

- A. CONTRACTOR will at all times ensure certification and licensing from the Florida Department of Agriculture and Consumer Services (FDACS) of all of CONTRACTOR's personnel and subcontractors who apply pesticides or herbicides on City property or public right-of-way pursuant to the Contract. All such personnel and subcontractors who apply fertilizer will be trained and certified through the "Green Industry BMP Program" and FDACS; and will have a limited certification for urban landscape commercial fertilizer application under Section 482.1562, F.S
- B. All commercial applicators of fertilizer will have and carry in their possession at all time when applying fertilizer, evidence of certifications by the Florida Department of Agricultural and Consumer Services **and** a Commercial Fertilizer Applicator License as per 5E-14.117(18) FAC.
- C. All Contractors shall comply with the minimum requirements of the Urban Turf Fertilizer Rule RE-1.003(2) FAC.
- D. Fertilizer used will meet Florida-friendly fertilizer requirements pursuant to Section 403.9337 F.S.
- E. Fertilizer and Pesticide application must meet minimum requirements of the most recent edition of the Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries, 2008.
- F. Fertilizer should not be applied within 10 feet of any inlet, curb and gutter, public street, pond, stream watercourse, lake, canal, or wetland as defined by the FDEP Chapter 62-340 FAC. Fertilizer may be applied within 3 ft. of a water body only if the applicator is equipped with a spreader deflector.
- G. A 10-foot wide Low Maintenance Zone is required from any pond, stream, watercourse, canal, ditch, lakes wetland or from the top of a seawall. No mowed or cut vegetative material may be deposited in any water body. Care must be taken to prevent erosion of the surface soils in this Zone. Contractor shall set mechanical mowers to prevent the exposing of bare soil on pond slopes, ditches, wetlands, stream and lakes. This Zone shall be suitably vegetated at all times to ensure soil stability.
- H. Fertilizers applied to turf shall be formulated and applied in accordance with requirements and direction provided by Rule 5E-1.003(2) FAC, Labeling for Urban Turf Fertilizers.
- I. In no case shall grass clipping, vegetative material, and /or vegetative debris be washed, swept or blown off into stormwater drains, curbs and gutters, ditches, conveyance, water bodies, wetlands or sidewalks or roadway. Any material that is accidentally so deposited shall be immediately removed to the maximum extent practicable.
- J. The monthly invoices shall include
  - (1) A summary of the type and amount of fertilizer used at each location.
  - (2) A summary of the type and amount of any chemicals and /or pesticides used at each pond, ditch, roadway or park location.

### **SGC 2. ADDITIONAL RESTRICTIONS, PROHIBITIONS, CONTROLS, AND LABOR PROVISIONS.**

- A. A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity; may not submit a bid on a contract with a public entity for the construction or repair of a public

building or public work; may not submit bids on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of Being placed on the convicted vendor list.

- B. In accordance with Section 287.134, Florida Statutes, an entity or affiliate who has been placed on the Discriminatory Vendor List, kept by the Florida Department of Management Services, may not submit a bid on a contract to provide goods or services to a public entity; may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor or consultant under a contract with any public entity; and may not transact business with any public entity.
- C. An entity or affiliate who has had its Certificate of Qualification suspended, revoked, denied or have further been determined by the Department to be a non-responsible contractor may not submit a bid or perform work for the construction or repair of a public building or public work on a contract with the Recipient.

**SGC 3.** Contractor will comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7617q), and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Contractor will also require all subcontractors to comply with the laws and regulations.

**SGC 4.** Contractor understands and will comply with 20.055(5), F.S.; and will also require all subcontractors to comply with 20.055(5), F.S.

**SGC 5. CONSTRUCTION AT THE BETHUNE POINT WATER RECLAMATION FACILITY:**

(Section 1, Forcemain Only)

The CONTRACTOR will supply information on each employee, including subcontractors, accessing the Bethune Point Water Reclamation Facility (BPWRF). The following requirements must be met in order to perform work at the BPWRF:

- CONTRACTOR must provide confirmation that background checks are performed on employees, including subcontractors. Background checks must include a review for violent felonies.
- All employees, including subcontractors, must wear an ID badge when on site at the BPWRF. At a minimum, ID badges must include company name, contact information and name of employee.
- CONTRACTOR must provide a list of all employees, including subcontractors, accessing the BPWRF. CONTRACTOR must notify the City immediately of any personnel changes.
- CONTRACTOR must provide a single, reachable point of contact for all issues regarding construction at the BPWRF. This contact is responsible for keeping a log of who is on site at all times.
- Before the end of the previous work week, CONTRACTOR must provide a scheduled start and stop time for each work day for the following work week to the CITY for approval. CITY staff will check the CONTRACTOR in at the BPWRF each work day. This is the only way the CONTRACTOR will access the BPWRF.

CONTRACTOR will be notified of any worker determined to be problematic or deemed to be in the CITY's best interest for restriction. CONTRACTOR must remove said worker from the BPWRF immediately.

The required information can be provided by e-mail, fax or US mail. Contact information will be provided at the pre-construction meeting.

SECTION ONE:  
SOUTH BEACH STREET FORCE MAIN  
(6361-3)

DAVIS-BACON REQUIREMENTS  
AND FDEP SUPPLEMENTARY  
CONDITIONS ONLY APPLY TO  
THIS SECTION



**REFERENCE PACKAGE**

**SOUTH BEACH STREET FORCEMAIN**

**IMPROVEMENTS**

**CONTRACT NO.:** \_\_\_\_\_

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



**CITY OF DAYTONA BEACH  
SOUTH BEACH STREET FORCE MAIN  
IMPROVEMENTS**

**LISTING OF SIGNIFICANT TASK SUBCONTRACTORS**

<u>Task*</u>	<u>Name of Person/Firm Performing Task**</u> <u>(Please Include Contact Information)</u>
Utilities Construction (36" min. DIP)	

\*Please identify any other major components.  
\*\*If self -performing, please indicate.



**MINIMUM QUALIFICATIONS OF PROSPECTIVE BIDDER**

**CITY CONTRACT NUMBER:** \_\_\_\_\_

**PROJECT TITLE:** South Beach Street Force Main Improvements \_\_\_\_\_

**TO:** City of Daytona Beach Purchasing Department  
Attn: Joanne Flick  
301 South Ridgewood Avenue, Room 146  
P.O. Box 2451  
Daytona Beach, FL 32115-2451  
[flickj@codb.us](mailto:flickj@codb.us)

**CONTRACTOR FIRM NAME:** \_\_\_\_\_

**BUSINESS ADDRESS:** \_\_\_\_\_

**CITY, STATE, ZIP CODE:** \_\_\_\_\_

**PHONE NUMBER:** \_\_\_\_\_ **FAX NUMBER:** \_\_\_\_\_

**EMAIL ADDRESS:** \_\_\_\_\_

**TASK: UTILITIES CONSTRUCTION (36" Min. DIP)**

(One Project Min. of 2,000 LF - 36" or larger Ductile Iron Pipe installed via open cut method)

Reference No. 1

Bidder/Major Subcontractor: \_\_\_\_\_

Name of Project: \_\_\_\_\_

Location of Project: \_\_\_\_\_

Type of Work on Project: \_\_\_\_\_

Length of Project (Feet): \_\_\_\_\_

**Project Components:**

- |                               | Yes                      | No                       |
|-------------------------------|--------------------------|--------------------------|
| a. Potable Water Construction | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Reuse Water Construction   | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Force Main Construction    | <input type="checkbox"/> | <input type="checkbox"/> |

Dates Work was Performed: \_\_\_\_\_

**Work Completion:**

- a. Was project undertaken, or Bidder/Subcontractor portion of the project commenced no earlier than 2009? (Yes/No) \_\_\_\_\_
- b. Did the successful Bidder perform at least 50% of the work described for that project? (Yes/No) \_\_\_\_\_
- c. Did project achieve final acceptance? (Yes/No) \_\_\_\_\_ or, was the project deemed substantially complete and available for beneficial use by the Facility Owner? (Yes/No) \_\_\_\_\_

**Summary of any OSHA safety violations or significant injuries during the course of the work:**

\_\_\_\_\_

Name of Facility Owner: \_\_\_\_\_

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

Primary Contact Person for Facility Owner: \_\_\_\_\_

Employed by Owner: (Yes/No) \_\_\_\_\_ Consultant: (Yes/No) \_\_\_\_\_

Resident Construction Engineer: (Yes/No) \_\_\_\_\_ Project Administrator: (Yes/No) \_\_\_\_\_

Contact Person Company Name: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

Secondary Contact Person: \_\_\_\_\_

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

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

**TASK: UTILITIES CONSTRUCTION (36" Min. DIP)**

(One Project Min. of 2,000 LF - 36" or larger Ductile Iron Pipe installed via open cut method)

Reference No. 2

Bidder/Major Subcontractor: \_\_\_\_\_

Name of Project: \_\_\_\_\_

Location of Project: \_\_\_\_\_

Type of Work on Project: \_\_\_\_\_

Length of Project (Feet): \_\_\_\_\_

**Project Components:**

- |                               | Yes                      | No                       |
|-------------------------------|--------------------------|--------------------------|
| a. Potable Water Construction | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Reuse Water Construction   | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Force Main Construction    | <input type="checkbox"/> | <input type="checkbox"/> |

Dates Work was Performed: \_\_\_\_\_

**Work Completion:**

- a. Was project undertaken, or Bidder/Subcontractor portion of the project commenced no earlier than 2009? (Yes/No) \_\_\_\_\_
- b. Did the successful Bidder perform at least 50% of the work described for that project? (Yes/No) \_\_\_\_\_
- c. Did project achieve final acceptance? (Yes/No) \_\_\_\_\_ or, was the project deemed substantially complete and available for beneficial use by the Facility Owner? (Yes/No) \_\_\_\_\_

**Summary of any OSHA safety violations or significant injuries during the course of the work:**

\_\_\_\_\_

Name of Facility Owner: \_\_\_\_\_

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

Primary Contact Person for Facility Owner: \_\_\_\_\_

Employed by Owner: (Yes/No) \_\_\_\_\_ Consultant: (Yes/No) \_\_\_\_\_

Resident Construction Engineer: (Yes/No) \_\_\_\_\_ Project Administrator: (Yes/No) \_\_\_\_\_

Contact Person Company Name: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

Secondary Contact Person: \_\_\_\_\_

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

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

**TASK: UTILITIES CONSTRUCTION (36" Min. DIP)**

(One Project Min. of 2,000 LF - 36" or larger Ductile Iron Pipe installed via open cut method)

Reference No. 3

Bidder/Major Subcontractor: \_\_\_\_\_

Name of Project: \_\_\_\_\_

Location of Project: \_\_\_\_\_

Type of Work on Project: \_\_\_\_\_

Length of Project (Feet): \_\_\_\_\_

**Project Components:**

- |                               | Yes                      | No                       |
|-------------------------------|--------------------------|--------------------------|
| a. Potable Water Construction | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Reuse Water Construction   | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Force Main Construction    | <input type="checkbox"/> | <input type="checkbox"/> |

Dates Work was Performed: \_\_\_\_\_

**Work Completion:**

- a. Was project undertaken, or Bidder/Subcontractor portion of the project commenced no earlier than 2009? (Yes/No) \_\_\_\_\_
- b. Did the successful Bidder perform at least 50% of the work described for that project? (Yes/No) \_\_\_\_\_
- c. Did project achieve final acceptance? (Yes/No) \_\_\_\_\_ or, was the project deemed substantially complete and available for beneficial use by the Facility Owner? (Yes/No) \_\_\_\_\_

**Summary of any OSHA safety violations or significant injuries during the course of the work:**

\_\_\_\_\_

Name of Facility Owner: \_\_\_\_\_

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

Primary Contact Person for Facility Owner: \_\_\_\_\_

Employed by Owner: (Yes/No) \_\_\_\_\_ Consultant: (Yes/No) \_\_\_\_\_

Resident Construction Engineer: (Yes/No) \_\_\_\_\_ Project Administrator: (Yes/No) \_\_\_\_\_

Contact Person Company Name: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

Secondary Contact Person: \_\_\_\_\_

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

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

**SUPPLEMENTARY CONDITIONS (CONSTRUCTION)**

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Florida Department of Environmental Protection  
State Revolving Fund Program  
Supplementary Conditions  
for

Formally Advertised  
Construction Procurement

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ENVIRONMENTAL PROTECTION  
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## **FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SUPPLEMENTARY CONDITIONS**

The intent of the Florida Department of Environmental Protection (FDEP) Supplementary Conditions is to complement and supplement other provisions of the Bidding Documents. However, if there is any conflict between the FDEP Supplementary Conditions and other provisions of the Bidding Documents, the FDEP Supplementary Conditions shall take precedence over the other provisions except when the other provisions are similar to, but more stringent than, the FDEP Supplementary Conditions. When other provisions of the Bidding Documents are similar to, but more stringent than, the FDEP Supplementary Conditions, the more stringent provisions shall apply.

### ARTICLE 1 - DEFINITIONS

Wherever used in these Supplementary Conditions (except in the appendices to these Supplementary Conditions), the following terms have the meanings indicated, which are applicable to both the singular and plural thereof.

- 1.1 Addendum - A written or graphic instrument that is issued prior to the opening of bids and that clarifies, corrects, or changes the Bidding Documents.
- 1.2 Agreement or Contract - The written agreement between the Owner and the Contractor covering the Work to be performed and furnished; these Supplementary Conditions and other Contract Documents are attached to the Agreement/Contract and made a part thereof as provided therein.
- 1.3 Bid - The offer or proposal of a bidder submitted on the prescribed form and setting forth the price(s) for the Work to be performed and furnished.
- 1.4 Bidder - Any person, firm, or corporation that submits a bid directly to the Owner.
- 1.5 Bidding Documents - The Advertisement for Bids or the Invitation to Bid, the Instructions to Bidders or the Information for Bidders, the Bid Form, the proposed Contract Documents, and all addenda.
- 1.6 Bond - An instrument of security.
- 1.7 Change Order - A document that is recommended by the Engineer and signed by the Contractor and the Owner; that authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Time; and that is issued on or after the Effective Date of the Agreement/Contract.
- 1.8 Contract Documents - The Agreement/Contract; the Contractor's Bid when attached as an exhibit to the Agreement/Contract; the Performance and Payment Bond(s); the General Conditions; the Supplementary Conditions (including these Supplementary Conditions); the Specifications (written technical descriptions of material, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto); the Drawings (drawings that show the character and scope of the Work to be performed and furnished); all addenda that pertain to the Contract Documents; and all change orders.
- 1.9 Contract Time - The number of days or the date stated in the Contract Documents for completion of the Work.
- 1.10 Contractor - The person, firm, or corporation with whom or which the Owner enters into the Agreement/Contract.
- 1.11 Effective Date of the Agreement/Contract - The date indicated in the Agreement/Contract on which the Agreement/Contract becomes effective, or if no such date is indicated in the Agreement/Contract, the date on which the Agreement/Contract is signed and delivered by the last of the two parties to sign and deliver the Agreement/Contract.
- 1.12 Engineer - The person, firm, or corporation named as such in the Contract Documents.
- 1.13 Minority Business Enterprise (MBE) - A historically Black college or university or a business that is (a) certified as socially and economically disadvantaged by the Small Business Administration, (b) certified as an MBE by a state or federal agency, or (c) an independent business concern which is at least 51-percent owned and controlled by minority group members. (A minority group member is an individual who is a citizen of the United States and one of the following: [i] Black American; [ii] Hispanic American [with origins from Puerto Rico, Mexico, Cuba, or South or Central America]; [iii] Native American [American Indian, Eskimo, Aleut, or native Hawaiian]; or [iv] Asian-Pacific American

[with origins from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the U.S. Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, Taiwan, or the Indian Subcontinent].)

1.14 Notice to Proceed -The written notice given by the Owner to the Contractor fixing the date on which the Contract Time will commence to run and on which the Contractor shall start to perform its obligations under the Contract Documents.

1.15 Owner - The local government (municipality, county, district, or authority; or any agency thereof; or a combination of two or more of the foregoing acting jointly) with which the Florida Department of Environmental Protection (FDEP) may execute, or has executed, a State Revolving Fund loan agreement and for which the Work is to be provided.

1.16 Project - The total construction or facilities described in a State Revolving Fund loan agreement between the FDEP and the Owner, of which the Work to be provided under the Contract Documents may be the whole or a part.

1.17 Sponsor – The recipient of the State Revolving Fund loan agreement that provides funds for the project.

1.18 Subcontract - A direct contract between a subcontractor and the Contractor, or any other subcontractor at any tier, for the furnishing of goods (material and equipment) or the performance of services (including construction) necessary to complete the Work.

1.19 Subcontractor - A person, firm, or corporation having a direct contract with the Contractor, or any other subcontractor at any tier, for the furnishing of goods (material and equipment) or the performance of services (including construction) necessary to complete the Work.

1.20 Successful Bidder - The lowest responsive, responsible bidder to whom or which the Owner intends to award the Agreement/Contract.

1.21 Women's Business Enterprise (WBE) - A business that is (a) certified as a WBE by a state or federal agency or (b) an independent business concern which is at least 51-percent owned and controlled/operated by women. (Determination of whether a business is at least 51-percent owned by women shall be made without regard to community property laws [e.g., an otherwise qualified WBE that is 51-percent owned by a married woman in a community property state will not be disqualified because the married woman's husband has a 50-percent interest in the married woman's share of the business; similarly, a business that is 51-percent owned by a married man and 49-percent owned by women will not become a qualified WBE by virtue of the married man's wife having a 50-percent interest in the married man's share of the business].)

1.22 Work - The entire completed construction or the various separately identifiable parts thereof required to be performed and furnished under the Contract Documents; Work is the result of performing services, furnishing labor, furnishing material and equipment, and incorporating material and equipment into the construction as required by the Contract Documents.

## ARTICLE 2 - PRIVACY OF AGREEMENT/CONTRACT

2.1. The Owner expects to finance this Agreement/Contract with assistance from the FDEP, which administers a State Revolving Fund loan program supported in part with funds directly made available by grants from the United States Environmental Protection Agency (USEPA). Neither the State of Florida nor the United States (nor any of their departments, agencies, or employees) will be a party to this Agreement/Contract or any lower-tier subcontract.

## ARTICLE 3 - PROCUREMENT REQUIREMENTS

3.1. This Agreement/Contract and the Owner's solicitation and award of this Agreement/Contract are subject to requirements contained in Chapter 62-503 (Revolving Loan Program) and/or Chapter 62-552, Florida Administrative Code as applicable.

## ARTICLE 4 - RESOLUTION OF PROTESTS AND CLAIMS/DISPUTES

### **Resolution of Protests Concerning the Owner's Solicitation and/or Award of this Agreement/Contract:**



4.1. Protests concerning the Owner's solicitation and/or award of this Agreement/Contract must be filed in writing with the Owner to be considered.

4.2. All timely written protests concerning the Owner's solicitation and/or award of this Agreement/Contract are to be resolved in accordance with the Owner's dispute resolution process. A copy of the ordinance(s), resolution(s), or written policy (policies) that set forth the Owner's dispute resolution process is included elsewhere in the Bidding Documents or is to be made available by the Owner upon request.

4.3. Neither the (FDEP) nor the USEPA will become a party to, or have any role in resolving, protests concerning the Owner's solicitation and/or award of this Agreement/Contract. Protest decisions made by the Owner cannot be appealed to the FDEP or the USEPA.

**Resolution of Claims and Disputes Between the Owner and the Contractor:**

4.4. Unless otherwise provided in the Contract Documents, all claims and disputes between the Owner and the Contractor arising out of, or relating to, the Contract Documents or the breach thereof are to be decided by arbitration (if the Owner and the Contractor mutually agree) or in a court of competent jurisdiction within the State of Florida.

4.5. Neither the FDEP nor the USEPA will become a party to, or have any role in resolving, claims and disputes between the Owner and the Contractor.

ARTICLE 5 - CHANGES TO THE BIDDING AND CONTRACT DOCUMENTS

5.1. All changes to the Bidding Documents made subsequent to the FDEP's acceptance of the Bidding Documents and prior to the opening of bids are to be documented via addendum (addenda) to the Bidding Documents; all changes to the Contract Documents made after the opening of bids are to be documented by change order(s) to the Contract Documents. The Owner shall submit all addenda and change orders to the FDEP.

ARTICLE 6 - BONDS AND INSURANCE

**Bid Guarantees:**

6.1. Each bidder's bid is to be accompanied by a bid guarantee made payable to the Owner in an amount at least equal to five percent of the bidder's maximum bid price and in the form of a certified check or bid bond.

**Performance and Payment Bond(s):**

6.2. The Contractor shall furnish a combined performance and payment bond in an amount at least equal to 100 percent of the Contract Price (or, if required elsewhere in the Contract Documents, the Contractor shall furnish separate performance and payment bonds, each in an amount at least equal to 100 percent of the Contract Price) as security for the faithful performance and payment of all the Contractor's obligations under the Contract Documents. This(these) bond(s) are to be delivered to the Owner by the Contractor along with the executed Agreement/Contract. The Owner shall forward a copy of this (these) bond(s) to the FDEP.

**Insurance:**

6.3. The Owner and/or the Contractor (as required elsewhere in the Contract Documents) shall purchase and maintain, during the period of construction, such liability insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims that may arise out of, or result from, the Contractor's performance and furnishing of the Work (whether the Work is to be performed or furnished by the Contractor or any subcontractor at the Work site) and the Contractor's other obligations under the Contract Documents. This insurance is to include workers' compensation insurance, comprehensive general liability insurance, comprehensive automobile liability insurance, and contractual liability insurance applicable to the Contractor's indemnification obligations and is to be written for not less than the limits of liability and coverages determined by the Owner or required by law, whichever is greater.

6.4. The Owner and/or the Contractor (as required elsewhere in the Contract Documents) shall purchase and maintain, during the period of construction, property insurance upon the Work at the Work site in an amount equal to the full replacement cost of the Work or the full insurable value of the Work. This insurance is to include the interests of the Owner, the Contractor, and all subcontractors at the Work site (all of whom are to be listed as insured or additional insured parties); is to insure against the perils of fire and extended coverage; and is to include "all-risk" insurance for physical loss or damage due to theft, vandalism and malicious mischief, collapse, water damage, and/or all other risks against which coverage is obtainable.

6.5. Before any Work at the Work site is started, the Contractor shall deliver to the Owner certificates of insurance that the Contractor is required to purchase and maintain in accordance with Paragraphs 6.3 and 6.4 of this Article and other provisions of the Contract Documents, and the Owner shall deliver to the Contractor certificates of insurance that the Owner is required to purchase and maintain in accordance with Paragraphs 6.3 and 6.4 of this Article and other provisions of the Contract Documents.

#### **ARTICLE 7 - AWARD OF AGREEMENT/CONTRACT**

7.1. If this Agreement/Contract is awarded, it is to be awarded to the lowest responsive, responsible bidder. A fixed price (lump sum or unit price or both) agreement/contract is to be used. A clear explanation of the method of evaluating bids and the basis for awarding this Agreement/Contract are included elsewhere in the Bidding Documents. All bids may be rejected when in the best interest of the Owner. After the contract has been awarded, the Owner shall give the Contractor a notice to proceed fixing the date on which the Contract Time will commence to run. The Owner shall forward a copy of this notice to proceed to the FDEP.

#### **ARTICLE 8 - ITEMIZED CONSTRUCTION COST BREAKDOWN; CONSTRUCTION AND PAYMENT SCHEDULES**

8.1. The Contractor shall submit to the Owner, within ten calendar days after the Effective Date of this Agreement/Contract, an itemized construction cost breakdown and construction and payment schedules.

8.1.1. The itemized construction cost breakdown, or schedule of values, is to include quantities and prices of items aggregating the Contract Price and is to subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices are to include an appropriate amount of overhead and profit applicable to each item of Work.

8.1.2. The construction, or progress, schedule is to indicate the Contractor's estimated starting and completion dates for the various stages of the Work and is to show both the projected cost of Work completed and the projected percentage of Work completed versus Contract Time.

8.1.3. The payment schedule is to show the Contractor's projected payments cumulatively by month.

#### **ARTICLE 9 – FDEP/USEPA ACCESS TO RECORDS AND PROJECT SITE**

9.1. Authorized representatives of the Owner, the FDEP, and the USEPA shall have access to, for the purpose of inspection, the Work site(s), any books, documents, papers, and records of the Contractor that are pertinent to this Agreement/Contract at any reasonable time. The Contractor shall retain all books, documents, papers, and records pertinent to this Agreement/Contract for a period of five years after receiving and accepting final payment under this Agreement/Contract.

#### **NOTE: ARTICLE 10 ONLY APPLIES TO FEDERAL CAP GRANT PROJECTS**

#### **ARTICLE 10 - DISADVANTAGED BUSINESS ENTERPRISES**

10.1 A goal of five percent of the Contract Price is established for Minority Business Enterprise (MBE) participation in the Work, and a goal of five percent of the Contract Price is established for Women's Business Enterprise (WBE) participation in the Work. If bidders or prospective contractors (including the Contractor) intend to let any lower-tier goods

or services (including construction) subcontracts for any portion of the Work, they shall physically include these percentage goals for MBE and WBE participation in all solicitations for subcontracts and shall take good faith efforts to assure that MBEs and WBEs are utilized, when possible, as sources of goods and services. Good faith efforts are to include the following:

- 10.1.1. Require Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- 10.1.2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- 10.1.3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- 10.1.4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
- 10.1.5. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
- 10.1.6. If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs 10.1.1 through 10.1.5 of this section.

10.2. Within ten calendar days after being notified of being the apparent Successful Bidder, the apparent Successful Bidder shall submit to the Owner documentation of the affirmative steps it has taken to utilize Minority and Women's Business Enterprises (MBEs and WBEs) in the Work and documentation of its intended use of MBEs and WBEs in the Work. The Owner shall keep this documentation on file and shall forward to the FDEP a copy of the apparent Successful Bidder's documentation concerning its intended use of MBEs and WBEs in the Work.

#### ARTICLE 11 - DEBARMENT AND SUSPENSION (EXECUTIVE ORDER 12549)

##### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions**

11.1. The bidder certifies, by submission of this proposal, that neither the bidder nor its principals, nor the bidder's subcontractors nor their principals, are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

11.2. Where the bidder is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

11.3. The bidder also certifies that it and its principals and the bidder's subcontractors and their principals:

- 11.3.1. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 11.3.2. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph 11.3.1 of this certification; and
- 11.3.3. Have not within a three-year period preceding this proposal had one or more public transactions (federal, state or local) terminated for cause or default. Where the bidder is unable to certify to any of the above, such owner shall attach an explanation to this proposal.

11.3.4. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

11.3.5. The bidder shall incorporate the foregoing requirements 11.1 through 11.3 in all subcontracts.

## ARTICLE 12 - EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

### **12.1. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246).** (Applicable to contracts/subcontracts exceeding \$10,000)

12.1.1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

12.1.2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in Florida, are as follows:

Goal for female participation: 6.9 percent statewide

Goal for minority participation: (See Appendix B at FDEP-20 for goals for each county)

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

12.1.3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

12.1.4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the State of Florida.

12.1.5. Contractors shall incorporate the foregoing requirements in all subcontracts.

### **12.2. Equal Opportunity Clause** (Applicable to contracts/subcontracts exceeding \$10,000)

During the performance of this contract, the contractor agrees as follows:

12.2.1. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

12.2.2. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. The notice can be obtained online at [http://www.eeoc.gov/employers/upload/eeoc\\_self\\_print\\_poster.pdf](http://www.eeoc.gov/employers/upload/eeoc_self_print_poster.pdf). The Contractor shall state that all qualified applicants be considered without regard to race, color, religion, sex or national origin.

12.2.3. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

12.2.4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

12.2.5. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

12.2.6. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

12.2.7. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

12.2.8. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs 12.2.1 through 12.2.8 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

**12.3. The Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)**

12.3.1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
- c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. "Minority" includes:
  - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
  - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
  - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

12.3.2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

12.3.3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

12.3.4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the FEDERAL REGISTER in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

12.3.5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

12.3.6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

12.3.7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 12.3.7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

- n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

12.3.8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (12.3.7a through 12.3.7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

12.3.9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

12.3.10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

12.3.11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12.3.12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

12.3.13. The Contractor, in fulfilling its obligation under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

12.3.14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.



12.3.15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

12.4. Pursuant to 41 CFR 60-1.7, if the price of this bid exceeds \$10,000, the bidder, by signing and submitting this proposal, certifies the following:

12.4.1. Affirmative action programs pursuant to 41 CFR 60-2 have been developed and are on file;

12.4.2. Documentation of a previous contract or subcontract subject to the equal opportunity clause is available;

12.4.3. All reports due under the applicable filing requirements have been filed with the Joint Reporting Committee, the Deputy Assistant Secretary or the Equal Employment Opportunity Commission; and

12.4.4. Each prospective construction subcontractor that may be awarded a lower-tier construction subcontract with a price exceeding \$10,000 shall meet the above requirements 12.4.1 through 12.4.3.

12.5. Pursuant to 41 CFR 60-1.8, if the price of this bid exceeds \$10,000, the bidder, by signing and submitting this proposal, certifies the following:

12.5.1. That he/she does not maintain or provide for his/her employees any segregated facility at any of his/her establishments;

12.5.2. That he/she does not permit employees to perform their services at any location, under his/her control, where segregated facilities are maintained;

12.5.3. That he/she will not maintain or provide for employees any segregated facilities at any of his/her establishments;

12.5.4. That he/she will not permit employees to perform their services at any location under his/her control where segregated facilities are maintained;

12.5.5. That a breach of this certification is violation of the Equal Opportunity Clause of this contract; and

12.5.6. That he/she will obtain identical certifications from proposed Subcontractors prior to the award of Subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his/her files.

As used in this certification, the term “segregated facilities” means any waiting rooms, work eating areas, time clocks, locker rooms, and other storage or dressing areas, transportation and housing facilities provided for employees which are in fact segregated on the basis of race, color, religion, or otherwise.

12.6. If the price of this Agreement/Contract exceeds \$10,000, the Owner shall give written notice to the Director of the Office of Federal Contract Compliance Programs within ten working days of award of this Agreement/Contract. The notice is to include the name, address, and telephone number of the Contractor; the employer identification number of the Contractor; the dollar amount of this Agreement/Contract; the estimated starting and completion dates of this Agreement/Contract; the number of this Agreement/Contract; and the geographical area in which the Work is to be performed.

12.7. If the price of this Agreement/Contract equals or exceeds \$50,000 and if the Contractor has 50 or more employees, the Contractor shall electronically file Standard Form 100 (EEO-1) online at <https://egov.eeoc.gov/eeo1/eeo1.jsp> within 30 calendar days after the award of this Agreement/Contract, unless the Contractor has submitted such a report within 12 months preceding the date of award of this Agreement/Contract. In addition, the Contractor shall ensure that each construction subcontractor having 50 or more employees and a lower-tier construction subcontract with a price equaling or exceeding \$50,000 also electronically files this form within 30 calendar days after the award to it of the lower-tier construction subcontract, unless the construction subcontractor has submitted such a report within 12 months preceding the date of award of the lower-tier construction subcontract.

ARTICLE 13 - IMMIGRATION REFORM AND CONTROL ACT OF 1986 (STATE OF FLORIDA EXECUTIVE ORDER 11-116)

The Immigration Reform and Control Act of 1986 prohibits employers from knowingly hiring illegal workers. The Contractor shall only employ individuals who may legally work in the United States – either U.S. citizens or foreign citizens who are authorized to work in the U.S. The Contractor shall use the U.S. Department of Homeland Security’s E-Verify Employment Eligibility Verification system (<http://www.uscis.gov/portal/site/uscis>) to verify the employment eligibility of:

- all new employees, during the term of this Agreement, to perform employment duties within Florida; and,
- all new employees (including subcontractors and subrecipients) assigned by the Contractor to perform work pursuant to this Agreement.

The Contractor shall include this provision in all subcontracts/subgrants it enters into for the performance of work under this Agreement.

ARTICLE 14 – ENVIRONMENTAL COMPLIANCE

The Contractor, and all subcontractors at any tier, shall comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857[h]), Section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738 (Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans).

ARTICLE 15 – FEDERAL LABOR STANDARDS PROVISION

Contracts being constructed with assistance from the State Revolving Fund Program are currently required to comply with the Federal Labor Standards Provisions as provided in Appendix C. Signing Appendix A certifies compliance with these provisions.

ARTICLE 16 – AMERICAN IRON AND STEEL PROVISION

Contracts being constructed with assistance from the State Revolving Fund Program are currently required to comply with The American Iron and Steel Provision as provided in Appendix D. Signing Appendix A certifies compliance with these provisions.

ARTICLE 17 - PROHIBITED LOCAL GOVERNMENT CONSTRUCTION PREFERENCES

- A. Pursuant to Section 255.0991, F.S., for a competitive solicitation for construction services in which 50 percent or more of the cost will be paid from state-appropriated funds which have been appropriated at the time of the competitive solicitation, a state, college, county, municipality, school district, or other political subdivision of the state may not use a local ordinance or regulation that provides a preference based upon:
1. The contractor’s maintaining an office or place of business within a particular local jurisdiction;
  2. The contractor’s hiring employees or subcontractors from within a particular local jurisdiction; or
  3. The contractor’s prior payment of local taxes, assessments, or duties within a particular local jurisdiction.
- B. For any competitive solicitation that meets the criteria in Paragraph A., a state college, county, municipality, school district, or other political subdivision of the state shall disclose in the solicitation document that any applicable local ordinance or regulation does not include any preference that is prohibited by Paragraph A.

**APPENDIX A TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SUPPLEMENTARY CONDITIONS**

**CERTIFICATION OF COMPLIANCE WITH THE FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION SUPPLEMENTARY CONDITIONS**

This certification relates to a construction contract proposed by \_\_\_\_\_,  
(insert the name of the Owner)

which expects to finance the proposed construction contract with assistance from the Florida Department of Environmental Protection (which administers a State Revolving Fund loan program supported in part with funds directly made available by grants from the United States Environmental Protection Agency). I am the undersigned prospective construction contractor or subcontractor.

I certify that I have read the Florida Department of Environmental Supplementary Conditions and agree to incorporate the following articles into the bid and/or contract:

- ARTICLE 11 DEBARMENT AND SUSPENSION (EXECUTIVE ORDER 12549)
- ARTICLE 12 EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)
- ARTICLE 13 IMMIGRATION REFORM AND CONTROL ACT OF (STATE OF FLORIDA EXECUTIVE ORDER 11-116)
- ARTICLE 14 ENVIRONMENTAL COMPLIANCE
- ARTICLE 15 FEDERAL LABOR STANDARDS PROVISION
- ARTICLE 16 AMERICAN IRON AND STEEL PROVISION

I agree that I will obtain identical certifications from prospective lower-tier construction subcontractors prior to the award of any lower-tier construction subcontracts with a price exceeding \$2,000. I also agree that I will retain such certifications in my files.

\_\_\_\_\_  
(Signature of Authorized Official) (Date)

\_\_\_\_\_  
(Name and Title of Authorized Official [Print or Type])

\_\_\_\_\_  
(Name of Prospective Construction Contractor or Subcontractor [Print or Type])

\_\_\_\_\_  
(Address and Telephone Number of Prospective Construction Contractor or Subcontractor [Print or Type])

\_\_\_\_\_  
(Employer Identification Number of Prospective Construction Contractor or Subcontractor)

**APPENDIX B TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
SUPPLEMENTARY CONDITIONS**

**GOALS AND TIMETABLES FOR MINORITIES AND FEMALES**

[Note: These goals and timetables are the goals and timetables referred to in Paragraph 2 of the "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)"; these goals and timetables are to be included in all FDEP assisted construction contracts and subcontracts with a price exceeding \$10,000 and in all solicitations for such contracts and subcontracts.]

The following goals and timetables for female utilization shall be included in all federal and federally assisted construction contracts and subcontracts in excess of \$10,000. The goals are applicable to the contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a federal or federally assisted construction contract or subcontract.

Area covered: Goals for Women apply nationwide.

Goals and Timetables

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Timetable	Goals (percent)
Indefinite	6.9

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Goals for minority utilization can be found in the Department of Labor's Technical Assistance Guide for Federal Construction Contractors (May 2009), available on the internet at <http://www.civilrightsusa.gov/pdf/TAG%20-%20Constuction.pdf> . These goals shall be included for each craft and trade in all federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a federal, federally assisted or non-federally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply with the applicable SMSA or EA goal contained in this Appendix.

**APPENDIX C**  
**TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**SUPPLEMENTARY CONDITIONS**

**Davis-Bacon Requirements**

**FEDERAL LABOR STANDARDS PROVISIONS**

**(Davis-Bacon Act, Copeland Act, and Contract Works Hours & Safety Standards Act)**

The Project to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such federal assistance.

**1 Minimum Wages.**

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act, 29 CFR Part 3, the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR Part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) (a) The sponsor, on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The FDEP shall approve a request for an additional classification and wage rate and fringe benefits; therefore, only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the sponsor(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the sponsor to the FDEP. The FDEP will transmit the request to the Administrator of the Wage and Hour Division, employment Standards Administration, U. S. Department of Labor. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional

classification action within 30 days of receipt and so advise the FDEP or will notify FEDP within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event that the Contractor, the laborers or mechanics to be employed in the Classification or their representatives, and the sponsor do not agree on the proposed classification and wage rate (including the amount designed for fringe benefits, where appropriate), the FDEP shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of FDEP, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account, assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

## **2. Withholding.**

The sponsor shall, upon written request of the EPA or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, EPA may, after written notice to the contractor, sponsor, applicant, or owners, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and Basic Records.**

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017).

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed, a copy of all payrolls to the sponsor. Such documentation shall be available upon request by FDEP. As to each payroll copy received, the sponsor shall provide a certification that the project is in compliance with the requirements of 29 CFR 5.5(a)(1) with each disbursement request. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(I), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site <http://www.dol.gov/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current addresses of each covered worker, and shall provide them upon request to the sponsor for transmission to the FDEP or EPA if requested by EPA, the FDEP, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsor. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149).

(b) Each payroll submitted shall be accompanied by a Statement of Compliance, signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR Part 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR Part 5.5 (a)(3)(I), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Option Form WH-347 shall satisfy the requirement for submission of the Statement of Compliance required by paragraph A. 3(ii)(b) of this section.

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph A.3(I) of this section available for inspection, copying, or transcription by authorized representatives of the FDEP or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FDEP may, after written notice to the contractor, or sponsor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.

#### **4. Apprentices and Trainees.**

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U. S. Department of Labor, the Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio

of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program, shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with the determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U. S. Department of Labor, the Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program the contract will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

## **5. Compliance with Copeland Act Requirements.**

The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

## **6. Subcontracts.**

The contractor or subcontractor will insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

## **7. Contract Termination, Debarment.**

A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.



## **8. Compliance with Davis-Bacon and Related Act Requirements.**

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3 and 5 are herein incorporated by referenced in this contract.

## **9. Disputes Concerning Labor Standards.**

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the sponsor, FDEP, EPA, the U. S. Department of Labor, or the employees or their representatives.

## **10. Certification of Eligibility.**

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded EPA contracts or participate in EPA programs pursuant to Executive Order 12549.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded EPA contracts or participate in EPA programs pursuant to Executive Order 12549.

(iii) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U. S. C. 1001. Additionally, U. S. Criminal Code, Section 1010, Title 18, U. S. C., Federal Housing Administration transactions, provides in part "Whoever, for the purpose of . . . influencing in any way the action of such Administration . . . makes, utters or publishes any statement, knowing the same to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both".

## **11. Complaints, Proceedings, or Testimony by Employees.**

**A.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this contract are applicable shall be discharged or in any other manner discriminated against by the contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The sponsor shall insert the following clauses set forth in paragraphs B.(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by item 3 above or 29 CFR 4.6. As used in the paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. The sponsor, upon written request of the FDEP or an authorized representative of the Department of Labor, may withhold or cause to be withheld, from any moneys payable on

account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same prime contract, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

### **C. Health and Safety**

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54.83 State 96).

(3) The contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

## **12. Guidance to Contractor for Compliance with Labor Standards Provisions**

### **a) Contracts with Two Wage Decisions**

If the contract includes two wage decisions, the contractor, and each subcontractor who works on the site, must submit either two separate payrolls (one for each wage decision) or one payroll which identifies each worker twice and the hours worked under each wage decision. One single payroll, reflecting each worker once, may be submitted provided the Contractor uses the higher rate in the wage decisions for each identical job classification. However, where a job classification is not listed in a wage decision and is needed for that portion of the work, the classification **must** be added to the wage decision. A worker may not be paid at the rate for a classification using the hourly rate for that same classification in another wage decision. After the additional classification is approved, the contractor may pay the higher of the two rates and submit one payroll, if desired.

### **b) Complying with Minimum Hourly Amounts**

- 1) The minimum hourly amount due to a worker in each classification is the total of the amounts in the Rates and Fringe Benefits (if any) columns of the applicable wage decision.
- 2) The contractor may satisfy this minimum hourly amount by any combination of cash and bona fide fringe benefits, regardless of the individual amounts reflected in the Rates and Fringe Benefits columns.
- 3) A contractor payment for a worker which is required by law is not a fringe benefit in meeting the minimum hourly amount due under the applicable wage decision. For example, contractor payments for FICA or unemployment insurance are not a fringe benefit; however, contractor payments for health insurance or retirement are a fringe benefit. Generally, a fringe benefit is bona fide if (a) it is available to most workers and (b) involves payments to a third party.
- 4) The hourly value of the fringe benefit is calculated by dividing the contractor's annual cost (excluding any amount contributed by the worker) for the fringe benefit by 2080. Therefore, for workers with overtime, an additional payment may be required to meet the minimum hourly wages since generally fringe benefits have no value for any time worked over 40 hours weekly. (If a worker is paid more than the minimum rates required by the wage decision, this should not be a problem. As long as the total wages received by a worker for straight time equals the hours worked times the minimum hourly rate in the wage decision, the requirement of the Davis-Bacon and Related Acts has been satisfied.)

### **c) Overtime**

For any project work over 40 hours weekly, a worker generally must be paid 150% of the actual hourly cash rate received, not the minimum required by the wage decision. (The Davis-Bacon and Related Acts only establishes minimum rates and does not address overtime. The Contract Work Hours Act contains the overtime requirement and uses basic rate of pay as the base for calculation, not the minimum rates established by the Davis-Bacon and Related Acts.)

#### d) Deductions

Workers who have deductions, not required by law, from their pay must authorize these deductions in writing. The authorization must identify the purpose of each deduction and the amount, which may be a specific dollar amount or a percentage. A copy of the authorization must be submitted with the first payroll containing the deduction. If deducted amounts increase, another authorization must be submitted. If deducted amounts decrease, no revision to the original authorization is needed. Court-ordered deductions, such as child support, may be identified by the responsible payroll person in a separate document. This document should identify the worker, the amount deducted and the purpose. A copy of the court order should be submitted.

#### e) Classifications Not Included in the Wage Decision

If a classification not in the wage decision is required, please advise the owner's representative in writing and identify the job classification(s) required. In some instances, the state agency may allow the use of a similar classification in the wage decision.

Otherwise, the contractor and affected workers must agree on a minimum rate, which cannot be lower than the lowest rate for any trade in the wage decision. Laborers (including any subcategory of the laborer classification) and truck drivers are not considered a trade for this purpose. If the classification involves a power equipment operator, the minimum cannot be lower than the lowest rate for any power equipment operator in the wage decision. The owner will provide forms to document agreement on the minimum rate by the affected workers and contractor.

The U.S. Department of Labor (USDOL) must approve the proposed classification and rate. The contractor may pay the proposed rate until the USDOL makes a determination. Should the USDOL require a higher rate, the contractor must make wage restitution to the affected worker(s) for all hours worked under the proposed rate.

#### f) Supervisory Personnel

Foremen and other supervisory personnel who spend at least 80% of their time supervising workers are not covered by the Davis-Bacon and Related Acts. Therefore, a wage decision will not include such supervisory classifications and their wages are not subject to any minimums under the Davis-Bacon and Related Act or overtime payments under the Contract Work Hours and Safety Standards Act. However, foremen and other supervisory personnel who spend less than 80% of their time engaged in supervisory activities are considered workers/mechanics for the time spent engaged in manual labor and must be paid at least the minimum in the wage decision for the appropriate classification(s) based on the work performed.

#### g) Sole Proprietorships / Independent Contractors / Leased Workers

The nature of the relationship between a prime contractor and a worker does not affect the requirement to comply with the labor standards provisions of this contract. The applicability of the labor standards provisions is based on the nature of the work performed.

If the work performed is primarily manual in nature, the worker is subject to the labor standards provisions in this contract. For example, if John Smith is the owner of ABC Plumbing and performs all plumbing work himself, then Mr. Smith is subject to the labor standards provisions, including minimum wages and overtime. His status as owner is irrelevant for labor standards purposes.

If a worker meets the IRS standards for being an independent contractor, and is employed as such, this means that the worker must submit a separate payroll as a subcontractor rather than be included on some other payroll. The worker is still subject to the labor standards provisions in this contract, including minimum wages and overtime.

If a contractor or subcontractor leases its workers, they are subject to the labor standards provisions in this contract, including minimum wages and overtime. The leasing firm must submit payrolls and these payrolls must reflect information required to determine compliance with the labor standards provisions of this contract, including a classification for each worker based on the nature of the work performed, number of regular hours worked, and number of overtime hours worked.

#### h) Apprentices / Helpers

A worker may be classified as an apprentice **only if participating in a federal or state program**. Documentation of participation must be submitted. Generally, the apprentice program specifies that the apprentice will be compensated at a percentage of journeyman rate. For Davis-Bacon Act purposes, the hourly rate cannot be lower than the percentage of the hourly rate for the classification in the applicable wage decision.

If the worker does not participate in a federal or state apprentice program, then the worker must be classified according to duties performed. This procedure may require classification in the trade depending on tools used, or as a laborer if specialized tools of the trade are not used. The contractor may want to consult with the Wage and Hour Division of the U.S. Department of Labor located in most large cities regarding the appropriate classification.

Presently, no worker may be classified as a helper. As with apprentices not participating in a formal apprentice program, the worker must be classified according to duties performed and tools used.

## **APPENDIX D TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SUPPLEMENTARY CONDITIONS**

### **American Iron and Steel Requirement**

The Contractor acknowledges to and for the benefit of the \_\_\_\_\_ (“Owner”) and the State of Florida (the “State”) that it understands that iron and steel products to be installed as a part of this contract must be in compliance with the requirements in H.R. 3547, “Consolidated Appropriations Act, 2014,” (Appropriations Act). H.R. 3547 includes the following language in Division G, Title IV, Sec. 436, under the heading, "Use of American Iron and Steel,":

(a) (1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.

(2) In this section, the term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the "Administrator") finds that--

(1) applying subsection (a) would be inconsistent with the public interest;

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

For waivers to these requirements based on (2)(b) above, contact Sheryl Parsons at USEPA Region IV. She can be reached by phone at (404) 562-9337.

"General Decision Number: FL20190137 01/04/2019

Superseded General Decision Number: FL20180180

State: Florida

Construction Type: Heavy

County: Volusia County in Florida.

HEAVY CONSTRUCTION PROJECTS (Including Sewer and Water Lines)  
(EXCLUDING CAPE CANAVERAL AIR FORCE STATION, PATRICK AIR FORCE  
BASE, KENNEDY SPACE FLIGHT CENTER AND MALABAR RADAR SITE)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional

information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number      Publication Date  
                                  0                                      01/04/2019

ENGI0673-013 05/01/2013

	Rates	Fringes
OPERATOR: Oiler.....	\$ 20.36	10.85

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\* IRON0808-003 01/01/2018

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 26.03	13.95

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LAB00517-002 05/01/2017

	Rates	Fringes
LABORER: Grade Checker.....	\$ 19.20	7.85

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PAIN1010-011 08/01/2018

	Rates	Fringes
Painter - Brush, Roller & Spray.....	\$ 24.71	12.95

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SUFL2009-176 06/24/2009

	Rates	Fringes
CARPENTER, Excludes Form Work....	\$ 13.56	1.84
CEMENT MASON/CONCRETE FINISHER...	\$ 12.63	0.00

ELECTRICIAN.....	\$ 16.71	3.51
FORM WORKER.....	\$ 11.36	0.00
LABORER: Common or General.....	\$ 9.03	0.81
LABORER: Landscape.....	\$ 8.44	0.00
LABORER: Pipelayer.....	\$ 11.17	1.27
LABORER: Power Tool Operator (Hand Held Drills/Saws, Jackhammer and Power Saws Only).....	\$ 10.63	2.20
OPERATOR: Asphalt Paver.....	\$ 11.88	0.00
OPERATOR: Backhoe Loader Combo.....	\$ 16.10	2.44
OPERATOR: Backhoe/Excavator.....	\$ 13.12	2.58
OPERATOR: Bulldozer.....	\$ 12.88	0.00
OPERATOR: Crane.....	\$ 14.88	3.17
OPERATOR: Grader/Blade.....	\$ 16.00	2.84
OPERATOR: Loader.....	\$ 13.38	0.00
OPERATOR: Mechanic.....	\$ 13.83	2.19
OPERATOR: Roller.....	\$ 10.50	0.00
OPERATOR: Scraper.....	\$ 11.00	1.74
OPERATOR: Trackhoe.....	\$ 20.92	5.50
OPERATOR: Tractor.....	\$ 10.00	0.00



TRUCK DRIVER, Includes Dump		
Truck.....	\$ 11.07	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 11.00	0.00
TRUCK DRIVER: Off the Road		
Truck.....	\$ 12.21	1.97

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates

the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on

a wage determination matter

\* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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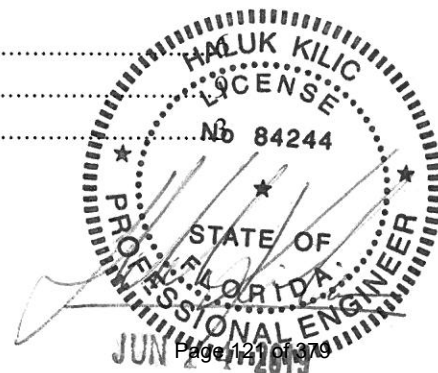
END OF GENERAL DECISION

"

**THE CITY OF DAYTONA BEACH  
SOUTH BEACH STREET FORCEMAIN IMPROVEMENTS**

**TECHNICAL PROVISIONS  
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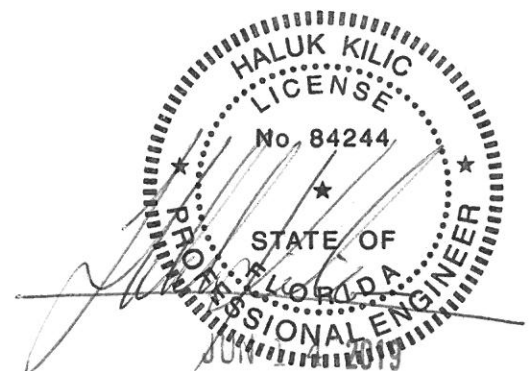
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**THE CITY OF DAYTONA BEACH  
SOUTH BEACH STREET FORCEMAIN IMPROVEMENTS**

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**SECTION 01010  
SUMMARY OF WORK**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

Work under the contract for the **South Beach Street Force Main Improvements shall include furnishing all coordination, labor, materials and construction services to complete the project work unless otherwise noted in the plans. The primary work shall include constructing a new 36" DIP sanitary force main, 6" PVC Reclaimed water main and 4" PVC (schedule 40) fiber-optic conduit within active City street right-of-ways.**

**The 36" DIP force main alignment will include a 4" PVC fiber-optic conduit. The construction of 36" DIP force main will start with a connection to an existing 24" DIP force main located approximately 60' east of the Live Oak Avenue/Palmetto Avenue intersection and run easterly along Live Oak Avenue, southerly along South Beach Street, easterly along Fremont Court and southerly along the FIND site to connect to the existing distribution lift station located in the southwest quadrant of the Bethune Point WRF.**

**The 6" PVC reclaimed water main installation will start with a connection to an existing reclaimed water main approximately 70' east of Live Oak Ave. and Palmetto Ave. and run easterly along Live Oak Avenue to connect to an existing reclaimed water main located at the south end of South Beach Street and Live Oak Ave. intersection. The 6" PVC Reclaimed water main installation will also include a connection to an existing reclaimed water main located on the east side of South Beach Street across from the Cedar Street intersection and run southerly along South Beach Street and easterly along Bellevue Ave. to connect to an existing reclaimed water main located approximately 40' southwest of the Bellevue Avenue/Donnelly Place intersection.**

The secondary work will include maintenance of traffic and all other ancillary construction support services including coordination with other facility and property owners within and adjacent to the project site that are affected by construction activities and the restoration and or replacement of all improvements above, on and below ground that are disturbed by construction activities. All work, materials, means and methods involved in the construction work shall be acceptable to the CITY and in accordance with the CITY Utilities Department Standard Details (latest edition and amendments),



CITY Specifications and the applicable sections of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition, and the Florida Department of Transportation Design Standards, 2010 edition.

A. **REQUIRED NOTICES TO AGENCIES AND PUBLIC:**

The CONTRACTOR shall adequately inform in advance the affected businesses, property owners and utility customers of scheduled temporary utility service disruptions and changes in access. CONTRACTOR shall provide alternative accommodations when required by CITY.

B. **SALVAGED MATERIALS:**

Unless otherwise noted in the contract, materials, equipment or supplies that are removed or that are no longer needed as a result of the contract work will become the property of the CONTRACTOR and shall be removed from the project and disposed of by the CONTRACTOR in areas provided by the CONTRACTOR.

**PART 2 PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 EXECUTION**

The CONTRACTOR shall be responsible for reviewing the site conditions, reviewing the Bid Documents, evaluating the testing schedule, verifying the Summary of Quantities and Bid Schedule and including all items and costs necessary to complete the work prior to preparing and submitting a balanced and responsive bid.

**END OF SECTION**

01010-2 of 2

**SECTION 01014  
MAINTENANCE OF OPERATIONS**

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**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements for scheduling and performing the work to keep existing essential facilities in continuous dependable operation.

**1.2 GENERAL CONSTRAINTS**

- A. The CONTRACTOR shall keep existing essential facilities in operation at the performance levels specified unless otherwise specifically permitted in these specifications or approved by the CITY in writing. Coordinate any system shutdowns with the CITY sufficiently in advance to provide alternative service. Allowable shutdown times will be at the CITY's discretion.
- B. Any temporary work, facilities, roads, walks, protection of existing structures, piping, blind flanges, valves, equipment, etc. that may be required within the CONTRACTOR's work limits to maintain continuous and dependable operation of existing systems shall be furnished and maintained by the CONTRACTOR at no extra cost to the CITY.
- C. The CONTRACTOR shall schedule the work in such a manner so that all existing systems are maintained in continuous operation unless otherwise directed by CITY. All short-term system or partial system shutdowns shall be approved in writing by the CITY. If, in the opinion of the CITY/ENGINEER, a shutdown is not required in order for the CONTRACTOR to perform the work, the CONTRACTOR shall utilize alternative methods to accomplish the work. CITY shall be provided a minimum of thirty (30) days notice of CONTRACTOR's need for any system shutdown.
- D. Required shutdowns shall not begin until all materials are on-hand, pre-assembled, as possible, and ready for installation. Upon commencement of the shutdown period the CONTRACTOR shall proceed with the work continuously, start to finish, until the work is completed and the system is tested, cleared for service, and ready for operation. If the CONTRACTOR completes all required work before the specified shutdown period has ended the CITY may immediately place the system back in service.
- E. The CITY reserves the right to cancel scheduled shutdowns if conditions warrant. Delays to the CONTRACTOR caused by cancellations will be considered in evaluating requests for a time extension. They will not be considered an entitlement to additional compensation. However compensation may be considered at CITY's sole discretion.

### **1.3 SUBMITTALS**

A. Submit a detailed schedule for and process description of proposed testing.

### **PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

### **PART 3 – EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

01014-2 of 2

**SECTION 01025  
MEASUREMENT AND PAYMENT**

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**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. Separate payment will be made only for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work, shall be considered to be included in the scope of the appropriate listed work items.
- B. The CONTRACTOR's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.
- C. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work if not shown as a separate pay item.
  - 1. Excavation, including necessary pavement base removal
  - 2. Shoring and sheeting
  - 3. Dewatering and disposal of surplus water
  - 4. Structural fill
  - 5. Backfill
  - 6. Grading
  - 7. Replacement of unpaved roadways, grass and shrubbery plots
  - 8. Cleanup
  - 9. Testing and placing system in operation
  - 10. Any material and equipment required to be installed and utilized for the test
  - 11. Pipe, structures, pavement replacement and/or appurtenances included within the limits of lump sum work

- 12. Maintaining the existing quality of service during construction
  - 13. Appurtenant work as required for a complete and operable system
  - 14. Hand locating existing utilities prior to construction
- D. No payment shall be made for work constructed outside the authorized limits of work.

**PART 2 – MATERIAL AND EQUIPMENT**

**2.01 Mobilization/Demobilization**

**Bid item No. 1**

Mobilization shall be the preparatory work and operations in mobilization for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of temporary office, storage buildings, safety equipment, and first aid supplies, sanitary and other facilities, as required by the Contract Documents and applicable laws and regulations. The costs of bonds, required insurance, permits and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials, shall also be included in the item. Demobilization shall be the work of removing temporary facilities from the site. Mobilization/Demobilization shall be limited to a maximum of 5% of the value of the Section 1 South Beach Street Force Main total.

Partial payments for this item shall be made in accordance with the following schedule:

<u>Percent of Original Contract Amount Earned</u>	<u>Allowable Percent of the Lump Sum Price for the Item</u>
After Contract Execution	10
10	25
25	50
50	75
100	100

**2.02 Maintenance of Traffic**

**Bid Item No. 2**

Payment for Maintenance of Traffic will be made at the contract lump sum price (not to exceed 1% of the value of the Section 1 South Beach Street Force Main total which shall be compensation for the material, labor, equipment and all other related work necessary to provide and maintain all additional traffic devices necessary to perform utility adjustments requiring individual lane shifts or closures within the established MOT plans for the Project. This item shall include the costs to prepare approved traffic control plans as well as the full cost to implement the approved plans. For areas under City, County or State control,

traffic control shall be provided in accordance with each entity's requirements. Payment shall be made as a percentage of the item based on the percent of the bid item completed (50% work completed equals 50% traffic control pay item paid).

**Maintenance of Traffic sheets furnished in the plan set shall be regarded as a guide or expression of intent only in the preparation and approval of the MOT plan.**

### **2.03 Survey/Layout, As-builts/Certified Records Drawings**

**Bid Item No. 3**

Payment of the applicable lump sum price shall be full compensation for furnishing all plant, labor, materials and equipment necessary for the establishment of any temporary or permanent control during the extent of the project. Should any existing permanent control be disturbed during construction, the CONTRACTOR shall direct his licensed surveyor to replace the control at no additional cost to the OWNER. Payment of the applicable lump sum price shall also include full compensation for furnishing all plant, labor, materials and equipment necessary to submit the "as-built" Drawings, certified by a registered land surveyor or professional engineer.

### **2.04 Clearing and Grubbing**

**Bid Item No. 4**

Payment will be made as a unit price per acre for clearing or removal and disposal of any above-grade vegetation or appurtenances. Payment will be full compensation for all materials, labor, equipment, and work necessary to complete the work in accordance with the contract plans and specifications.

### **2.05 Pavement Removal**

**Bid Item No. 5**

Payment will be made as a unit price per square yard for any pavement removal per City standards and requirements including saw cutting joints, and other work required. Asphalt and concrete required to be removed that is directly associated with the removal or installation of the pipe (except as provided elsewhere) shall be included to provide a clear, safe, and clean work area sufficient to construct the Project in accordance with the contract plans and specifications. Payment will be full compensation for all materials, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications.

### **2.06 Removal & Disposal of Existing Utility Infrastructure**

**Bid Item No. 6**

Payment will be made as a unit price per linear foot for removal & disposal of any existing utility infrastructure. Payment shall be full compensation for furnishing all plant, labor, materials and equipment necessary to remove the existing various sized utility infrastructure within the limits shown on the Drawings and noted on the Bid Form and for lawful disposal of the utility infrastructure.

### **2.07 Removal & Disposal of Existing Storm Infrastructure**

**Bid Item No. 7**

Payment will be made as a unit price per each removal & disposal of existing storm water infrastructure removed & disposed of. Payment shall be full compensation for furnishing

all plant, labor, materials and equipment necessary to remove the existing various sized storm water infrastructure within the construction limits shown on the Drawings and noted on the Bid Form and for lawful disposal of the storm infrastructure.

**2.08 Irrigation Removal & Replacement** **Bid Item No. 8**

Payment of the applicable lump sum price shall be full compensation for furnishing all plant, labor, materials and equipment necessary for removal & replacement of any irrigation line/system encountered during the installation of the proposed utilities. Payment shall be full compensation for furnishing all plant, labor, materials and equipment necessary to remove & replace the existing various sizes of irrigation systems within the construction limits shown on the Drawings.

**2.09 Staked Silt Fence (Type III)** **Bid Item No. 9**

Payment will be made as a unit price per linear foot for installation of silt fence per City standards and requirements. Payment will be full compensation for all materials, labor, equipment, and work necessary to provide staked silt fence in accordance with the contract plans and specifications.

**2.10 Erosion Control for Existing Inlets/Pipes** **Bid Item No. 10**

Payment at the applicable lump sum price will be made based on completion of providing erosion & sedimentation control for the existing inlets/pipes. Payment will be full compensation for furnishing all plant, labor, materials and equipment necessary to provide the required erosion and sedimentation control for the existing inlets/pipes as shown on the detail drawings of this set.

**2.11 Tree Protection** **Bid Item No. 11**

Payment at the applicable lump sum price will be made based on completion of providing erosion & sedimentation control for the existing inlets/pipes. Payment will be full compensation for furnishing all plant, labor, materials and equipment for tree protection. The tree protection shall be provided per City of Daytona Beach Land Development Code.

**2.12-2.13 Green PVC SDR-26, ASTM D-3034 Sanitary Main (8"/6")** **Bid Items No. 12-13**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal & replacement of any unsuitable materials encountered, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes and all items necessary to complete installation of the pipe. Sanitary sewer pipe shall be PVC SDR-26 (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.14 36" DIP (Class 350) Forcemain**

**Bid Item No. 14**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal & replacement of any unsuitable materials encountered, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the forcemain pipe. Forcemain pipe shall be DIP Class 350 (as designated on the plans), ceramic epoxy lined. Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.15-2.17 36" DIP Forcemain Bend Fittings (Class 350) (45°/22.5°/11.25°) Bid Items No. 15-17**

Payment will be made at the applicable unit price for the installation of each bend fitting as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of fittings.

**2.18 36" Plug Valve - Forcemain**

**Bid Item No. 18**

Payment will be made at the applicable unit price for the installation of each 36" plug valve as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of the 36" plug valve.

**2.19 36" HDPE (DR-26) Forcemain**

**Bid Item No. 19**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal & replacement of any unsuitable materials encountered, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the forcemain pipe. Forcemain pipe shall be HDPE DR-26 (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.20-2.21 36" HDPE Forcemain Bend Fittings (DR-26) (45°/22.5°)**

**Bid Items No. 20-21**

Payment will be made at the applicable unit price for the installation of each bend fitting as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation,



backfill, compaction, materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of fittings.

**2.22 Air Vacuum Combination Release Valve Bid Item No. 22  
(A.R.I. Model D-025 or Equal)**

Payment will be made at the unit price for each automatic air vacuum combination release valve installed per the City standards including valves, pipe connection saddle, piping, vault and other work/material needed as shown in the plans and specifications.

**2.23 -2.24 Pull Box (CDR #A14-3060-36)/ Pull Box (CDR #A14-3060-36) Bid Items No. 23-24  
Heavy Duty or Equal**

Payment will be made at the unit price per each of the actual quantity of pull boxes satisfactorily constructed. Such price and payment shall be full compensation for furnishing all plant, labor, materials, and equipment necessary to construct the pull boxes including but not limited to constructing the bench, frame and cover and applying exterior coating.

**2.25 4" PVC Conduit (PVC Schedule 40) Bid Item No. 25**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of any unsuitable materials, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes and all items necessary to complete installation of the pipe. 4" Conduit pipe shall be PVC Schedule 40 (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.26 4" PVC Long Sweeping 90° Bends (Schedule 40) Bid Item No. 26**

Payment will be made at the applicable unit price for the installation of each long sweeping 90° bend fitting as shown on the plans. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of long sweeping 90° bend fittings.

**2.27 Service Connections, Utility Coordination, Etc. – Sanitary Sewer Bid Item No. 27**

Payment will be made at the applicable unit price for the installation of each sanitary sewer service encountered during the installation of the proposed improvements as shown on the plans. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of sanitary sewer services.

**2.28-2.29 Connection to Existing Forcemain (24"/36")**

**Bid Items No. 28-29**

Payment at the applicable lump sum price will be made based on completion of forcemain connections as shown on the plans and described in the bid item description. Payment will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications and shall include dewatering, excavation, backfill, compaction, materials, removal and replacement of any unsuitable materials, equipment, labor, marker tape, locator wire, any required joint restraints, any transition adapters, stainless steel brackets and hardware and all other items necessary to complete installation of the forcemain connections.

**2.30 Connection to Existing 42" Sanitary Sewer @ Plant**

**Bid Items No. 30**

Payment at the applicable lump sum price will be made based on completion of forcemain connection at the existing wastewater facility as shown on the plans and described in the bid item description. Payment will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications and shall include dewatering, excavation, removal and replacement of any unsuitable materials, backfill, compaction, materials, equipment, labor, dog house manhole including the exterior coating, saw-cutting and removal of portion of existing 42" RCP gravity main, hardware and all other items necessary to complete installation of the forcemain connection.

**2.31 Class III Reinforced Concrete Pipe (12"/15"/18"/24"/30"/36")**

**Bid Item No. 31**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the stormwater pipes. Stormwater pipes shall be RCP, Class III (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.32 PVC Storm Pipe (White), SDR-26, ASTM D-3034 (4"/6"/8")**

**Bid Item No. 32**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the stormwater pipes. Stormwater pipes shall be PVC, SDR-26 (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.33 Type "E" Inlet with Steel Grates**

**Bid Item No. 33**

Payment will be made at the applicable unit price for the installation of each type "E" inlet with steel grates as shown on the plans. The contract unit price will be full

compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, equipment, labor, and all other items necessary to complete the installation of type “E” inlet with steel grates.

**2.34 Type “C” Inlet with Steel Grates**

**Bid Item No. 34**

Payment will be made at the applicable unit price for the installation of each type “C” inlet with steel grates as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, equipment, labor, and all other items necessary to complete the installation of type “C” inlet with steel grates.

**2.35-2.36 Junction Box, Drainage, Special (5’x5’)/(4’ Dia., 0’-6; Deep) Bid Items No. 35-36**

Payment will be made at the applicable unit price for the installation of each junction box as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, equipment, labor, and all other items necessary to complete the installation of junction box.

**2.37 Coupling – Storm (Various Sizes)**

**Bid Item No. 37**

Payment will be made at the applicable unit price for the installation of each coupling as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of couplings.

**2.38 6” PVC C900 Watermain**

**Bid Item No. 38**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the watermain pipe. Watermain pipe shall be PVC C900 (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.39 6" Gate Valve with Valve Box – Water**

**Bid Item No. 39**

Payment will be made at the applicable unit price for the installation of each 6" gate valve as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of the gate valves.

**2.40-2.41 Water Service – Endotrace (1"/2")**

**Bid Items No. 40-41**

Payment will be made at the applicable unit price for the installation of each potable water service encountered during the installation of the proposed improvements as shown on the plans. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of potable water services.

**2.42 Connection to Existing - Water**

**Bid Item No. 42**

Payment will be made at the applicable unit price for the installation of each potable water main connection as shown on the plans and described in the bid item description. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications and shall include any required joint restraints, any transition adapters, stainless steel brackets and hardware. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, equipment, labor, marker tape, locator wire, location wire, and all other items necessary to complete installation of the potable watermain connections.

**2.43 6" PVC Reclaimed Water Main (DR-18)**

**Bid Item No. 43**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the reclaimed watermain. Reclaimed watermain pipe shall be PVC DR-18 (as designated on the plans). Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.44 6" DIP Reclaimed Water Main (Class 350)**

**Bid Item No. 44**

Payment shall be made at the contract unit price per linear foot as measured along the horizontal centerline of pipe from its origination point to the end of the pipe, regardless of vertical deflection. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, grout filling of any wellpoint holes, and all items necessary to complete installation of the reclaimed watermain. Reclaimed watermain pipe shall be DIP Class

350 (as designated on the plans), ceramic epoxy lined where applicable. Density testing will be furnished by the City at the direction of the owner's contract administrator.

**2.45 6" Gate Valve with Valve Box – Reclaimed Water Bid Item No. 45**

Payment will be made at the applicable unit price for the installation of each 6" gate valve as shown on the plans. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications. The unit prices shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, restrained joints, equipment, labor, wire, marker tape, and all other items necessary to complete the installation of the gate valves.

**2.46 Connection to Existing – Reclaimed Water Bid Item No. 46**

Payment will be made at the applicable unit price for the installation of each reclaimed watermain connection as shown on the plans and described in the bid item description. The contract unit price will be full compensation for all materials and work necessary to complete the installation in accordance with the drawings and specifications and shall include any required joint restraints, any transition adapters, stainless steel brackets and hardware. The unit price shall be full compensation for all dewatering, excavation, backfill, compaction, materials, removal and replacement of unsuitable materials, equipment, labor, marker tape, locator wire, location wire, and all other items necessary to complete installation of the reclaimed watermain connections.

**2.47 2" Asphalt Pavement Bid Item No. 47**

Payment will be made as a unit price per square yard of asphalt pavement placed and accepted per City standards and requirements. Payment will be full compensation for all materials, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications. Payment includes cleaning, tack coat, and prime coat and replacement of any temporary traffic or lane markings and reflectors.

**2.48 10" Recycled Concrete Base Course Bid Item No. 48**

Payment will be made as a unit price per square yard of crushed concrete base course placed and accepted per City standards and requirements. Payment will be full compensation for all materials, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications.

**2.49 12" Subbase Stabilized to LBR-40 98% ASSHTO Bid Item No. 49**

Payment will be made as a unit price per square yard of stabilized subbase material placed and accepted per City standards and requirements. Payment will be full compensation for all materials, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications.

**2.50 Type “F” Concrete Curb & Gutter Bid Item No. 50**

Payment will be made as a unit price per linear foot of type “F” concrete curb and gutter constructed per City standards and requirements. Payment will be full compensation for all materials, form work, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications. Payment for base and stabilized subgrade beneath and behind curbing will be paid for on a square yard basis for those Bid Items.

**2.51 Type “D” Concrete Curb & Gutter Bid Item No. 51**

Payment will be made as a unit price per linear foot of type “D” concrete curb constructed per City standards and requirements. Payment will be full compensation for all materials, form work, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications. Payment for base and stabilized subgrade beneath and behind curbing will be paid for on a square yard basis for those Bid Items.

**2.52 Sidewalk Removal & Replacement (6” Deep) Bid Item No. 52**

Payment will be made as a unit price per square yard for any sidewalk removal & replacement per City standards and requirements including saw cutting joints, and other work required. Payment will be full compensation for all materials, removal and replacement of unsuitable materials, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications.

**2.53 Concrete Driveway Removal & Replacement (6” Deep) Bid Item No. 53**

Payment will be made as a unit price per square yard for any concrete driveway removal & replacement per City standards and requirements including saw cutting joints, and other work required. Payment will be full compensation for all materials, removal and replacement of unsuitable materials, labor, equipment, and work necessary to complete and maintain the work in accordance with the contract plans and specifications.

**2.54 Traffic Striping & Signage Bid Item No. 54**

Payment at the applicable lump sum price will be made based on completion of traffic striping and signage construction. Payment will be full compensation for furnishing all plant, labor, materials and equipment necessary to provide the required traffic striping and roadway signage.

**2.55 Parking Area Restriping (Includes Handicap Spaces) Bid Item No. 55**

Payment at the applicable lump sum price will be made based on completion of parking area restriping including the restriping of handicap spaces. Payment will be full compensation for furnishing all plant, labor, materials and equipment necessary to provide the restriping.

**2.56 Sodding****Bid Item No. 56**

Payment shall be made at the unit price for the type of sod installed and shall be full compensation for furnishing all plant labor, materials and equipment necessary to furnish and properly install approved sod within the limits shown on the Drawings or reasonable areas disturbed by the construction activities. Item shall include watering and maintenance for a one-month period. Sod shall be installed “staggered” with no gaps or unlevelled surfaces for payment to be made. Areas disturbed beyond reasonable limits for access or to perform the work will be resodded at the CONTRACTOR’s expense.

**2.57 Remove & Replace Permanent Fence****Bid Item No. 57**

Payment will be made as a unit price per linear foot of permanent fence removed and replaced along the FIND site. Payment shall be full compensation for furnishing all plant, labor, materials and equipment necessary to remove the existing permanent fence and replace with the same material within the limits shown on the Drawings and noted on the Bid Form.

**2.58 Remove & Replace Traffic Loops****Bid Item No. 58**

Payment will be made as a unit price per each removal & replacement of existing traffic loops. Payment shall be full compensation for furnishing all plant, labor, materials and equipment necessary to removal & replacement of existing traffic loops where necessary.

**2.59 Temporary Construction Fence****Bid Item No. 59**

Payment will be made as a unit price per linear foot of temporary construction fence installed along the FIND site. Payment shall be full compensation for furnishing all plant, labor, materials and equipment necessary to install the temporary construction fence within the limits shown on the Drawings and noted on the Bid Form.

**END OF SECTION**

**SECTION 01026**  
**PAYMENT APPLICATIONS**

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**PART 1- GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section specifies preparation and submittal requirements for Pay Applications and a Schedule of Values.

**1.2 PAY APPLICATIONS**

- A. Each Pay Application shall be consistent with previous applications and payments as certified by ARCHITECT/ ENGINEER and or CITY.
  - 1. CONTRACTOR to prepare Pay Application after confirming quantities or percent of work completed with CITY's construction field representative in draft form.
- B. Pay Application Work Periods: The period of construction work covered by each Application for Payment is the period indicated and agreed to on the Pay Application.
- C. Pay Application Submittal Times: Progress payments shall be submitted to CITY on average at one per thirty day period.
- D. Pay Application Forms: Use AIA Document G702/CMa and AIA Document G703 Continuation Sheets or City acceptable equivalents as a format for Applications for Payment.
- E. Application Preparation: Complete every entry on form. Place the CITY Purchase Order number on the form near the top. Notarize and execute by a person authorized to sign legal documents on behalf of CONTRACTOR. CITY will return incomplete applications without action.
  - 1. Entries shall match data on the Bid Schedule and Construction Schedule and if it is a Lump Sum Item Contract, the Schedule of Values. Provide updated schedules if revisions were made.
  - 2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- F. Transmittal: Submit electronic document (PDF) signed and notarized for each Pay Application to CITY. Include waivers of lien and similar attachments if required.



1. Transmit each Pay Application with a form listing attachments and recording appropriate information pertaining to the application such as work progress projections, CITY's Minority and Women Owned Business Enterprise Usage form, certified payrolls, etc...
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Pay Application include the following if applicable to the work:
1. List of SUBCONTRACTORS
  2. Schedule of Values (For Lump Sum Contract)
  3. CONTRACTOR's Construction Schedule (preliminary if not final)
  4. Bid Schedule of unit prices
  5. Submittals Schedule (preliminary if not final)
  6. List of CONTRACTOR's principal consultants
  7. Copies of building permits
  8. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work
  9. Initial progress report and projected work forecast
- H. Pay Application at Substantial Completion: After issuing the Certificate of Substantial Completion, submit a Pay Application showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting that the Work is substantially complete
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for CITY occupancy or use of designated portions of the Work.
- I. Final Pay Application: Submit final Pay Application in accordance with the requirements of the General Conditions, and may also include the following:
1. Updated final statement, accounting for final changes to the Contract Sum
  2. Evidence that claims have been settled
  3. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when CITY took possession of and assumed responsibility for corresponding elements of the Work
  4. Final, liquidated damages settlement statement

**CITY OF DAYTONA BEACH**

**SOUTH BEACH STREET FORCE MAIN IMPROVEMENTS**

**PAY APPLICATION CHECKLIST**

<b>DATE:</b>	
<b>CONTRACTOR</b>	
<b>PAY APP #</b>	
<b>PERIOD</b>	

<b>ITEM</b>	<b>DESCRIPTION</b>	<b>CONTRACTOR</b>	<b>OWNERS REP</b>
1	City Cover Page		
2	AIA Form (Signed & Notarized)		
3	Schedule of Values		
4	Stored Materials Form		
5	Stored Materials Invoices		
6	Up-dated Project Schedule		
7	Waiver of Mechanics Lien		
8	Progress Report		
9	Certified Weekly Payroll for Pay Period (Contractor & Subcontractor)		
10	New/Revised Employee Authorization for Deductions		
11	Laborers Interviews		
12	Engineers Certification (By Zev Cohen & Associates, Inc.)		
13	SRF Disbursement Request Package form		
14	Authorized Representative's Certification of Disbursement Request and Davis-Bacon Certification Form		

*Contractor shall complete upper portion of checklist and initial indicating the required items are included with the application. Completed checklist, executed pay application and forms shall be submitted to the City for further processing. The Contractor acknowledges with this initialed checklist and supporting documents that they shall maintain the original Pay Applications and Certified Payrolls for a period of 5 years after date of final completion.*

**END OF SECTION**

**SECTION 01200  
PROJECT MEETINGS AND VIDEO**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets for the requirements and responsibilities for conducting project meetings and the videoing of the project area to document the pre-construction conditions.

**1.2 PRE-CONSTRUCTION CONFERENCE**

A pre-construction conference will be held prior to beginning any work under the Contract. ENGINEER will schedule the conference in consultation with OWNER and CONTRACTOR.

CONTRACTOR shall be ready to submit his anticipated progress schedule, a preliminary schedule of shop drawing submissions, and a preliminary schedule of values.

The pre-construction conference will be attended by representatives of OWNER, ENGINEER, utility companies who will be affected by the work, and such of CONTRACTOR'S subcontractors as he wishes to attend.

**1.3 PROGRESS MEETINGS**

Regular progress meetings to be scheduled by CITY shall be held during the construction period at which the CONTRACTOR shall submit updated progress schedules, discuss significant events that have or will affect the progress and discuss the work to occur in the upcoming work period.

**1.4 INSTALLATION / DEMOLITION & SPECIAL EVENT CONFERENCES**

Well in advance of the installation/demolition of every major unit of work or special event that requires coordination with other work, CONTRACTOR will schedule a meeting with CITY, installers and representatives of manufacturers and fabricators, utility owners and or facility owners who are involved in or affected by the unit of work, and in its coordination or integration with other work which has preceded or will follow. Advise the CITY five (5) working days in advance of scheduled meeting dates. At each meeting review the progress of other work and preparations for the particular work under consideration, including the requirements of the contract documents, options, related change orders, purchases, deliveries, shop drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety, inspection

and testing requirements, required performance results, recording requirements, and protection. CONTRACTOR shall record the significant discussions of each conference along with the final place of action. Distribute record of meeting promptly to everyone concerned.

## **1.5 PROJECT VIDEO AND PHOTOGRAPHY**

Pre-construction video should include exterior of residents' houses, at a minimum. This should be coordinated with City staff and the property owner must be contacted and provide permission of videoing before it occurs.

CONTRACTOR shall make provisions at his expense to video preconstruction site conditions (i.e., roadway, sidewalk, walls, ground surface over utilities, etc.) within and adjacent to project boundaries. The video shall show pertinent physical features along the line of construction including significant trees and buildings. The CONTRACTOR can, at his expense, elect to video underground utility infrastructure to record pre-construction conditions. The purpose of the video is to determine any damage to private or public property during construction. For some projects, such as parking lots, building structures, water facilities, wastewater facilities, etc., a combination of photographs and DVD video will be required. A copy of the video and photographs shall be provided to the CITY.

**END OF SECTION**

## **SECTION 01300 GENERAL SUBMITTALS**

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### **PART 1 - GENERAL REQUIREMENTS**

#### **1.1 SUMMARY**

This Section sets forth the general requirements for various types of submittals including but not necessarily limited to product and process data, samples and miscellaneous work.

#### **1.2 SUBMITTALS**

Submittals shall be clear, legible and printed or typed. Submittals not meeting these requirements will be returned for resubmittal.

1. Product data includes standard printed information on materials, products and systems not custom prepared for this project other than the designation of selections from available choices.
2. Samples include both fabricated and non-fabricated physical examples of materials, products and work as complete units or as smaller portions of units of work submitted for limited visual inspection or for more detailed testing and analysis as indicated on the submittal.
3. Non-administrative miscellaneous submittals include warranties, guarantees, maintenance agreements, workmanship bonds, project photographs/videos, survey data and reports, physical work records, statements of applicability, quality testing and certifying reports, copies of industry standards, record drawings, operation and maintenance materials, overrun stock, security/protection/safety keys and similar information, devices and materials applicable to the work and not defined as shop drawings, product data or samples.
4. All submittals shall be submitted electronically.

#### **1.3 GENERAL SUBMITTAL REQUIREMENTS**

- A. Coordinate the preparation and processing of submittals with the performance of the work so that work will not be delayed by submittals. Coordinate and sequence different categories of submittals for the same work and for interfacing units of work so that one will not be delayed by the other. No extension of time will be allowed because of failure to properly coordinate and sequence submittals. Do not proceed with the purchase, fabrication or delivery of work related to a submittal until the submittal procedure has been successfully completed.

- B. Provide permanent marking on each submittal to identify it by project, date, CONTRACTOR, SUBCONTRACTOR, submittal name and similar information to distinguish it from other submittals. **Show CONTRACTOR's approval marking and provide space for review marking by ENGINEER and CITY.** Submittals received directly from sources other than through the CONTRACTOR's office will be returned without review. **Reviewed submittals will have CITY and ENGINEER stamps and signatures.**

**PART 2 - PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01340**  
**SHOP DRAWING PROCEDURES**

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**PART 1 – GENERAL REQUIREMENTS**

- A. This Section sets forth the shop drawing submittal procedures. CONTRACTOR shall conform to the general requirements of Section 01300 and this section.

**PART 2 – PRODUCTS**

- A. Shop drawings include custom-prepared data of all forms including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information.
- B. Shop drawings shall be submitted in electronic (PDF) format. Files shall be editable (not locked or protected) to allow for notes, stamps, signatures, etc. to be added electronically.

**PART 3– EXECUTION**

- A. CONTRACTOR shall review, stamp, sign and electronically submit shop drawings to the ENGINEER. CONTRACTOR will copy CITY on shop drawing correspondence. CONTRACTOR shall review shop drawings from suppliers and SUBCONTRACTORS for conformance with contract requirements and to ensure all required information is included before transmittal to ENGINEER.
- B. CONTRACTOR shall include a letter of transmittal with each shop drawing. The letter of transmittal shall include the following information:
  - 1. CONTRACTOR name and contact information
  - 2. Project name
  - 3. Contract number
  - 4. Project number
  - 5. Shop drawing number
  - 6. Type of shop drawing (i.e., water, sanitary, storm water precast)
  - 7. Description of any deviations from the requirements of the Contract documents
- C. ENGINEER will review, stamp, sign and electronically submit shop drawings to CITY.
- D. All shop drawings shall be stamped and signed by CONTRACTOR and ENGINEER with evidence of review prior to submittal to CITY. Shop drawings

not meeting this requirement will be returned without CITY review with a request for resubmittal.

- E.** A numerical filing system shall be used for shop drawings. The first shop drawing shall be “1” with following shop drawings numbered consecutively. Shop drawing resubmittals shall be identified by the original submittal number followed by the letter A (i.e., 1-A) for the first resubmittal, “B” for the second resubmittal and so on.
- F.** ENGINEER shall review shop drawings for general conformance with Contract documents. Markings or comments do not relieve the CONTRACTOR from compliance with the Contract documents. The CONTRACTOR remains responsible for shop drawing details and accuracy, confirming and correlating all quantities and dimensions, selecting fabrication processes, techniques of assembly and performing work in a safe manner.
- G.** CITY reviewed shop drawings shall be stamped, signed and electronically distributed to CONTRACTOR and ENGINEER.
- H.** A CITY reviewed shop drawing will be stamped “DB City Reviewed” or “DB City Reviewed as Noted.” Upon receipt of a shop drawing stamped as such, CONTRACTOR may order, ship or fabricate the materials provided it is in accordance with any comments noted.
- I.** If a reviewed shop drawing requires extensive corrections or corrections affecting other drawings or work, CITY may require CONTRACTOR to correct and resubmit drawings for record purposes.
- J.** If a shop drawing is unacceptable, it will be returned to CONTRACTOR and ENGINEER stamped “Revise and Resubmit” or “Rejected.” Upon return of a shop drawing marked “Revise and Resubmit,” CONTRACTOR shall make the corrections indicated and repeat the initial approval procedure. Upon return of a shop drawing marked “Rejected,” CONTRACTOR shall repeat the initial approval procedure utilizing acceptable material or equipment.
- K.** Shop drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for the time required to make delivery of material or equipment.
- L.** CONTRACTOR shall furnish shop drawings with complete and accurate information to receive a stamp of “DB City Reviewed” or “DB City Reviewed as Noted” within three submittals. All costs to ENGINEER and CITY involved with subsequent shop drawing reviews will be charged to CONTRACTOR at the rate of 3.0 times the direct technical labor cost by deducting the costs from



payments due CONTRACTOR for work completed. In the event CONTRACTOR requests a substitution for a previously approved shop drawing, ENGINEER and CITY costs for the review and approval of the substitution will be charged to CONTRACTOR at the rate of 3.0 times the direct technical labor cost by deducting the costs from payments due CONTRACTOR for work completed unless the need for the substitution is beyond the control of CONTRACTOR.

- M.** Close-out submittals: Refer to General Conditions and Section 01700 for related requirements on the submittal of closeout information, materials, tools and similar items.

**END OF SECTION**

**SECTION 01500  
TEMPORARY UTILITY FACILITIES**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A.** This section specifies the minimum requirements for temporary utility facilities to be brought to and operated at the project site in conjunction with the project work. The providing and operation of temporary utilities facilities is the CONTRACTOR's sole responsibility, and is not limited by the requirements of this Section.
- B.** The types of utility service facilities required for temporary use at the project site include: Potable and reclaimed water, sanitary sewer, stormwater drainage/run-off control facilities, electric power service, Information Technology communications service and telephone service. Other site specific services may be required for prosecution of the work.

**1.2 QUALITY ASSURANCE**

- A.** Comply with local, state and federal regulatory requirements and utility company regulations and recommendations for the construction of temporary utility services; including (but not necessarily limited to); code compliance, permits, inspections, testing, and health and safety compliance.
- B.** Comply with pollution and environmental protection regulations for the use of water and other services, and for the discharge of wastes and stormwater drainage from the project site. Comply with all environmental impact commitments of record that have been made by the CITY or previous owners of the site in securing approval to proceed with the construction of the project.
- C.** CONTRACTOR must control turbidity in rivers or canals so that it does not exceed established background turbidity by more than 50 Jackson Units at a distance greater than 100 feet from the point of work. This shall be done by the use of a "diaper" or floating or anchored turbidity barriers or other methods approved by the environmental agency or CITY.
- D.** Safety compliance at a minimum shall be in accordance with the "Manual of Accident Prevention in Construction" by AGC or other similar accident prevention organization.

## **PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

## **PART 3– EXECUTION**

### **3.3 OPERATIONS**

- A. Inspections: Prior to placing temporary utility services into use, inspect and test each service and arrange for governing authorities required inspection and test, and obtain required certifications and permits for use thereof.
- B. Supervision: Enforce strict discipline in the use of utility services. Limit availability to essential uses, so as to minimize wastes. Do not allow the installations to be abused or endangered.
- C. Protection: Prevent water filled piping from freezing, by ground cover or insulation or by keeping drained, or by temporary heating. Maintain distinct markers for underground lines, and protect from damage during excavating operations.
- D. Public Safety: The CONTRACTOR shall at all times so conduct his work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property, in a manner satisfactory to the CITY. **No road or street shall be closed to the public, except with the prior permission of the CITY and proper governmental authority. (Contact the CITY to complete special form so adequate public announcement can occur.)** Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to insure that sidewalks are usable and A.D.A compliant and that all gutters, sewer inlets, drainage ditches, and irrigation ditches are properly functioning. CONTRACTOR shall provide adequate drainage facilities, tie-downs, or other preventative measures for the work to protect the CITY and other properties from damage that occurs during severe weather events. **At first notice of a “SPECIAL WEATHER ALERT” the CONTRACTOR is hereby required to make the works area as safe as possible. This may mean filling excavations and removing all equipment at no extra cost to the CITY. The use of barricades during excessive winds should be avoided by installing in-the-ground mounted construction activity warning signs.**

**END OF SECTION**

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**SECTION 01541  
PROTECTION OF THE WORK AND PROPERTY**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY:**

- A. This Section sets forth the requirements and responsibilities to protect the work and all public and private property and improvements above and below ground from aesthetic and structural damage during the performance of the work.

**1.2 TREE AND PLANT PROTECTION:**

- A. CONTRACTOR shall protect unique species, significant and or historical existing trees adjacent to the site that are shown or designated to remain in place against unnecessary cutting, breaking or skinning of trunk, branches, bark or roots. The CONTRACTOR shall utilize the services of a Florida licensed arborist for protective services if so directed by the CITY.
- B. Materials, fuels, lubricants, chemicals, fire or equipment shall not be stored or parked within the drip line.
- C. Temporary fences or barricades in keeping with regionally recognized damage prevention practices shall be installed to protect trees and plants in areas subject to construction traffic.
- D. Within the limits of the work, water trees and plants that are to remain or that have been temporarily relocated, in order to maintain their health during construction operations.
- E. Cover all exposed roots with burlap that shall be kept continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run-off or noxious materials in solution.
- F. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use in a manner approved by the CITY.
- G. All damaged trees and plants that die or suffer permanent injury shall be removed when ordered by the CITY and replaced by a specimen of equal or better quality.

#### **1.4 PROTECTION OF EXISTING IMPROVEMENTS**

- A. Underground improvements are defined to include, but not limited to, all stormsewer, sanitary sewer, water, gas, and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface improvements located within or adjacent to the limits of the work.
- B. Surface improvements are defined as all existing buildings, structures and other facilities above the ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads and their dams, channels, open drainage, piping, pole wires, posts, signs, markers, curbs, pavers, walks and all other facilities that are visible above the ground surface.

#### **1.5 PROTECTION OF UNDERGROUND AND SURFACE STRUCTURES:**

- A. CONTRACTOR shall sustain in their places and protect from direct or indirect injury all underground and surface improvements located within or adjacent to the limits of the work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, CONTRACTOR shall satisfy the CITY that the party owning same has approved the methods and procedures to be used.

#### **1.6 PROTECTION OF FLOORS AND ROOFS:**

- A. CONTRACTOR shall protect floors and roofs during the entire construction period. Floors that are affected by the construction activities will be restored to the satisfaction of the CITY at the CONTRACTOR's cost.
- B. Proper protective covering shall be used when moving heavy equipment, handling materials or other loads, when painting, handling mortar and grout and when cleaning walls and ceilings.
- C. CONTRACTOR shall restrict access to roofs and keep clear of existing roofs except as required by the new work.
- D. If access to roofs is required, roofing, parapets, openings and all other construction on or adjacent to roof shall be protected with suitable plywood or other approved means.

#### **1.7 PROTECTION OF INSTALLED IMPROVEMENTS**

- A. Provide protection of installed improvements to prevent damage. Remove protection when no longer needed, with CITY concurrence, prior to completion of work.
- B. Control construction traffic to prevent damage to equipment, materials and surfaces.

**END OF SECTION**

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**SECTION 01568  
EROSION & SEDIMENTATION CONTROL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements for the control and containment and general prevention of pollution by erosion and sediment resulting from the project work in compliance with General Conditions of the contract and environmental regulations of the City, County, Department of Environmental Protection and United States Environmental Protection Agency.
- B. The cost of all work, materials and coordination to implement and maintain an effective and regulatory compliant erosion and sediment control plan shall be included in the unit cost for the associated primary items of work unless otherwise provided for in the bid items.

**1.2 SUBMITTALS**

- A. CONTRACTOR shall upon request submit an Erosion and Sedimentation Control Plan, prepared by an FDEP certified Stormwater Management Inspector, to the CITY for review and acceptance prior to beginning work. Each month a record of erosion control measures in place during the previous month will be provided.
  - 1. Should the CITY receive a warning letter from the Department of Environmental Protection, the CITY/ENGINEER will move to issue a Stop Work Order until the Department of Environmental Protection representative has re-inspected the work conditions and given a statement that the project now appears to be in compliance with Chapter 373. No additional work days will be allowed.
  - 2. The CONTRACTOR shall submit to CITY in writing the plan of action to prevent erosion and sedimentation problems cited during the project duration.

**JOB CONDITIONS**

Prior to placing a bid for this project the CONTRACTOR/bidder should prepare a draft plan of action for erosion and sedimentation control. The full cost for all materials, labor and equipment shall be considered within the bid items of the submitted bid. There will be no extra payment for any installation, maintenance or reinstallation of erosion control devices that

the Department of Environmental Protection may order as part of a warning letter.

## **PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

## **PART 3– EXECUTION**

### **3.1 GENERAL**

- A. CONTRACTOR shall not start work until erosion and sediment control measures are fully in place to prevent pollution of air, water and adjacent property. It shall be the CONTRACTOR's responsibility to provide, construct and maintain all sediment and erosion control devices. The CONTRACTOR shall have an FDEP Certified Stormwater Management Inspector onsite to supervise installation and maintenance of all erosion and sedimentation controls. Best Management Practices shall be used where directed by the CITY.
- B. The CITY shall not be tasked with advising the CONTRACTOR of compliance, but should the CITY believe the Erosion and Sedimentation Control Plan proposed or installed by the CONTRACTOR to be inadequate the CITY will send a certified letter to the CONTRACTOR warning the CONTRACTOR of potential environmental concern. Should the Department of Environmental Protection conduct a field inspection and the CITY be put on notice the CITY will order the project closed until the erosion and sedimentation control devices are all in place and functioning properly.
- C. Two (2) primary types of silt barriers may be installed in accordance with an action plan prepared by the CONTRACTOR and as noted on the plans; silt barriers installed on the ground, and floating turbidity/silt-barriers.
- D. Silt barriers (filter fabric) shall be synthetic and contain ultraviolet ray inhibitors and stabilizers. Silt barriers shall be maintained and remain in-place until all risk of erosion has passed.
- E. Hay bales shall not be used for silt barriers, unless maintained during rain events.
- F. Inlet sediment protection barrier systems shall be maintained in place until all risk of erosion has passed.
- G. Sandbagging shall consist of furnishing and placing sandbags in a configuration that prevents or contains erosion.

- H. Sediment basins shall be constructed as necessary to prevent erosion from leaving the project limits.
- I. Berms with appropriate sod or all-weather coverings shall be constructed as necessary to divert the flow of water from causing erosion.
- J. Temporary grassing, chemical soil stabilizers or non-erodable coverings will be required to prevent erosion from soil surfaces with an anticipated unprotected exposure to sun and wind of more than 30 days.

### **3.2 CONTROL OF CONTRACTOR'S OPERATIONS**

- A. In the event that it is necessary that the construction operations be suspended due to major storm events, the CONTRACTOR shall use due care secure the construction zone and do everything possible to prevent erosion at the same time preventing flooding of adjacent properties. Should such preventative measures fail, CONTRACTOR shall immediately take all action as necessary to effectively remediate erosion and sedimentation damage. Should the CITY be ordered by the Department of Environmental Protection to upgrade erosion control immediately after the major storm event the CONTRACTOR shall contact the CITY for further consideration of available options.

**END OF SECTION**



**SECTION 01570  
TRAFFIC CONTROL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

The work in this section includes the coordination, implementation and operation of a Maintenance of Traffic (MOT) plan, in accordance with the construction plans and permits, that provides for the safe execution of the work and the safety of the public while maintaining property access and an effective flow of pedestrian and vehicular traffic.

**1.2 SUBMITTALS**

The CONTRACTOR shall submit three maintenance of traffic plan sets complying with the M.U.T.C.D., Part IV and the Florida Department of Transportation (FDOT) Roadway and Traffic Design Standards, latest edition, Index No. 600 series as a project Shop Drawing submittal. The Plan must provide for the maintenance of vehicular and pedestrian traffic, including public safety and driveway access to properties on all roads and streets during the prosecution of the Work. The CITY shall have the right at any time to require revisions to the Plan and to require CONTRACTOR to take additional steps not reflected on the approved Plan, in order to ensure maintenance of vehicular and pedestrian flow and provide protection against damage to access routes and haul routes.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

- A. The CONTRACTOR shall be responsible for the implementation of the maintenance of traffic plan. Vehicular and pedestrian traffic including access to businesses and other properties shall be maintained on all roads and streets.
- B. The CONTRACTOR shall coordinate with the CITY's Project Manager and Traffic Operations Manager and the Owner of the road right of way in preparing the maintenance of traffic plan.
- C. The CONTRACTOR shall provide a Worksite Traffic Supervisor for the duration of the project, to supervise the implementation of the plan. The Supervisor must be trained and certified by a Florida Department of Transportation approved traffic

safety education provider. Contact information shall be provided at the Pre-Construction meeting.

- D. It shall be the CONTRACTOR's responsibility to restore work site access routes and material haul routes to their pre-construction condition when damages result from the CONTRACTOR's activities.
- E. The CONTRACTOR shall comply with the requirements and permits of the respective right of way owners while working within their right of ways.
- F. No additional compensation shall be made for compliance with these requirements.

**END OF SECTION**

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**SECTION 01600  
MATERIALS AND EQUIPMENT**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the general requirements for quality and uniformity of materials and equipment furnished by CONTRACTOR. Materials and equipment shall conform to applicable specifications, operating and performance standards and comply with the size, make, type and quality specified, or as specifically approved in writing by CITY and or Engineer of Record.

**1.2 TRANSPORTATION AND HANDLING**

- A. Materials and equipment shall be loaded and unloaded by methods affording adequate protection against damage. Every precaution shall be taken to prevent injury to the materials or equipment during transportation and handling. Suitable power equipment will be used and the materials or equipment shall be under control at all times. Under no condition shall the materials or equipment be dropped, bumped or dragged. When a crane is used, a suitable hook or lift sling shall be used. The crane shall be so placed that all lifting is done in a vertical plane. Materials or equipment skid loaded, palletized or handled on skid ways shall not be skidded or rolled against materials or equipment already unloaded.
- B. Materials and equipment shall be delivered to the job site by means that will adequately support it and not subject it to undue stresses. CONTRACTOR shall promptly inspect the products for damage and defects and conformance with the specification. Materials and equipment damaged or injured in the process of transportation, unloading or handling will be rejected and shall be immediately removed from the site.

**PART 2 - PRODUCTS**

- A. The CONTRACTOR shall provide anchor bolts and weather exposed structural attachments in stainless steel for each piece of equipment furnished unless otherwise directed.

**PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01611  
STORAGE OF MATERIAL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements and provisions necessary for the storage of materials and equipment. Materials and equipment shall be kept neatly and compactly stored in locations that will cause a minimum of inconvenience to other contractors, public travel, adjoining Cities, tenants, and occupants.

**1.2 UNCOVERED STORAGE**

- A. The following types of materials may be stored out of doors without cover; masonry units, reinforcing steel, structural steel, piping, pre-cast concrete items, castings, hand-railing. Store the above materials on wood blocking so there is no contact with the ground.

**1.3 COVERED STORAGE**

- A. The following types of materials may be stored out of doors if covered with material impervious to water: rough lumber, filter media. Tie down covers with rope and slope to prevent accumulation of water on covers.

**1.4 FULLY PROTECTED STORAGE**

- A. Store all products not named above in buildings or trailers that have concrete or wooden floor, a roof, and fully closed walls on all sides. Provide heated storage space for materials that would be damaged by freezing. Protect mechanical and electrical equipment from being contaminated by dust, dirt and moisture. Maintain humidity at levels recommended by manufacturers for electrical and electronic equipment. Provide air conditioning areas as necessary.

**1.5 MAINTENANCE OF STORAGE**

- A. Maintain a periodic system of inspection of stored products on a scheduled basis to assure that the state of storage facilities is adequate to provide required conditions, that the required environmental conditions are maintained on a continuing basis and that products exposed to elements are not adversely affected.

- B. Mechanical and electrical equipment which requires long term storage shall have complete manufacturer's instructions for servicing, accompanying each item, with notice of enclosed instructions shown on exterior of package. Comply with manufacturer's instructions on scheduled basis.

**END OF SECTION**

**SECTION 01650  
DISINFECTION OF WATER MAINS**

Rev. 01/30/12

**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

This Section sets forth the specific requirements including materials and methods to disinfect potable water mains, document the process and acquire a State of Florida Department of Environmental Protection/Volusia County Health Department clearance for use.

**1.2 REFERENCES**

Section 01660, Section 02641, CITY Utilities Department Standard Details, latest edition, AWWA C 651 and ancillary applicable standards shall apply.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

**3.1 PROCESS**

- A. Upon completion of new pipe line it shall be cleaned and pressure tested in accordance with the latest edition of the CITY Utilities Department Standard Details and Sections 01660 and 02641
- B. Provide two paper copies of the water as-built/Record Drawings and one CD of the AutoCAD file for approval ***before*** disinfection/chlorination can be scheduled.
- C. Once the as-built/ Record Drawings have been approved disinfection/chlorination can be scheduled and will be coordinated through the Utility Inspector and Utilities Department Laboratory. CITY staff will operate all existing system valves.
- D. The CONTRACTOR is responsible for the installation of sampling points and onsite work associated with testing and sampling points.

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- E. The CITY Utilities Department staff will collect samples only for water mains within the right of way or utility easements that will be public. Private water systems will not be sampled by CITY staff.
- F. Once the samples have passed in accordance with State of Florida Department of Environmental Protection/Volusia County Health Department regulations, a PDF copy of the bacteriological test report will be sent to the Engineer of Record. The Engineer of Record will then fill out a water main clearance application for the CITY's Utilities Department to file for water main clearance.
- G. Furnish 1 Mylar set of the Water As-Builts/ Record Drawings to the City's Utilities Department.
- H. Upon clearance by Volusia County Health Department, the water line may be placed in service by CITY.

### **3.2 JOB CONDITIONS**

- A. The CONTRACTOR shall review the field conditions prior to placing a bid for this project and evaluate the testing schedule that will be required. To the maximum extent possible the CONTRACTOR shall schedule field tests as soon as possible to allow segments of the system to be cleared for use and to allow pavement replacement to begin.
- B. The CONTRACTOR shall submit a chlorination/disinfection testing plan to the CITY for each segment of the new system to be tested prior to moving on to another section. The plan shall be coordinated with and found to be acceptable by the CITY a minimum of two (2) weeks in advance of the requested testing time to verify that a partial clearance or approval will be allowed.

### **3.3 FINAL FIELD TESTING**

The CONTRACTOR shall notify the CITY at least three (3) business days in advance of beginning tests. In the case of water main pigging operations, chlorination operations and tests the CONTRACTOR must secure advance approval from the Utilities Department Water System Manager. (NOTE: BECAUSE WATER MAIN FLUSHING INCREASES WATER DEMANDS THE WATER MANAGER MAY NOT ALLOW TESTS TO BE PERFORMED DURING NORMAL WORKING HOURS.)

### 3.4 FIELD TEST STANDARDS FOR WATER MAINS

- A. The CONTRACTOR shall take adequate regulatory agency compliant precautions to prevent water pollution from the discharge of pigging and disinfection water offsite. Appropriate treatment shall be provided onsite. **A plan for de-chlorinating the super-chlorinated disinfection water shall be provided to the CITY for review and acceptance a minimum of seven (7) days prior to disinfection taking place.** The super-chlorinated disinfection water shall not be allowed to remain in the water main for more than seventy-two (72) hours. If the super-chlorinated disinfection water remains in residence for more than seventy-two (72) hours the water main system will be considered damaged and will require replacement and re-testing by the CONTRACTOR at no additional cost to the CITY.
- B. Pressure tests shall be conducted after laying and to the extent practicable on the entire system before backfilling. **Pressure piping and valves shall be statically tested at 150 psig. The test pressure shall be maintained for an uninterrupted minimum time period of four (4) hours and be measured at the high point in the line. Hydrostatic Testing per Section 5.2 ANSI/AWWA C600-99** All air shall be expelled from the line before applying the test pressure. Exposed pipe, joints and other potential leak sources shall be carefully examined for leaks.
- C. Acceptance of the piping installation shall be determined on the basis of testing allowances defined in the AWWA C600-99 standard. If any test of laid pipe discloses a testing allowance greater than that specified in Section 5.2.1.6, repairs or replacements shall be accomplished in accordance with these specifications
- D. The CITY will conduct random reviews of the in line valves and water services to be certain that the total water main has been fully pressure tested.

**END OF SECTION**

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**SECTION 01660  
UTILITY PIPING & EQUIPMENT- GENERAL FIELD TESTING**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. The scope of work is the performing of all field tests required to demonstrate that the new equipment and piping constructed is as specified and complete and ready. The repeating of tests that did not meet the established standards will be at the total cost of the CONTRACTOR. The work in this section shall be performed at no additional costs unless a separate bid item is provided. The cost of all work and materials needed to perform the field tests shall be included in pipe and equipment items.
- B. The CITY shall not be tasked with advising the CONTRACTOR of compliance, but should the CITY believe the field tests are inadequate the CITY will be require the CONTRACTOR to provide additional random field verification tests.

**1.2 REFERENCES**

- A. The CITY Utilities Department Standard Details, latest edition, AWWA C 651 and ancillary applicable standards and manufacturer's recommended standards shall apply.

**1.3 SUBMITTALS**

- A. The CONTRACTOR shall submit to the CITY the results of field tests.

**1.4 PRELIMINARY TESTING**

- A. The CONTRACTOR shall make preliminary field tests of all equipment and piping as conditions permit.
- B. Purpose of testing shall be to establish that the equipment and piping was delivered to the site in good condition, properly installed, complies with operating cycle, does not overheat or overload, vibrate or operate in an unacceptable manner.
- C. CONTRACTOR shall furnish all labor, materials, instruments, fuel, Incidentals and expendables required, unless otherwise provided.

- D. CONTRACTOR shall make all changes, adjustments and replacements required to place equipment in service and provide verification testing.
- E. The CITY shall be given sufficient prior notice to prepare for and witness tests.

**1.5 JOB CONDITIONS**

- A. To the maximum extent possible the CONTRACTOR shall schedule field tests to allow portions of the project to be cleared for use and to allow pavement replacement final grassing to begin as soon as possible.
- B. Review any planned partial system disinfection with the CITY a minimum, of two weeks in advance to verify that a partial clearance or approval will be allowed.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

**3.1 FINAL TESTING**

- A. The CONTRACTOR shall perform final field tests of equipment and piping, provide install and remove test equipment and appurtenances and make all CITY required system adjustments and replacements resulting from failed tests at his cost prior to acceptance.
- B. The field tests shall clearly demonstrate that the equipment and piping meet the operational requirements and manufacture's recommended standards. The cost of all work and materials needed to perform the field tests shall be included in the applicable pipe and equipment items.
- C. The cost of all work and materials needed to perform the field tests shall be included in the applicable pipe and equipment items.
- D. All disinfection water shall be de-chlorinated and flushing, pigging and miscellaneous testing water shall be free of pollutants prior to discharge to any stormwater system, wetland, waterway or water-body.
- E. Pigging will be required for all pressure piping that has a 6" or greater inside diameter. At the CITY's direction flushing without

pigging will be used on gravity systems and pipes with an inside diameter less than 6”.

- F. CONTRACTOR shall seek approval from the CITY for scheduling tests at least three (3) business days in advance of the desired timeframe. In the case of flushing, disinfection or pigging operations and/or tests the Utilities Department Water System Manager will determine the time period (night or day) when these operations and tests are allowed to be conducted in order to minimize the negative impacts of additional water volume demands.

### **3.2 SANITARY-FORCE MAINS**

- A. Force mains shall be pigged and subjected to a hydrostatic leakage test. This test measures the amount of water required to be supplied to newly laid pipe to maintain a specified pressure after the pipe has been filled with water and the air expelled. The duration of this test shall not be less than two (2) uninterrupted hours and the test pressure shall be 100 psig as measured at the high point in the line. The maximum allowable leakage for the pipe material used shall not exceed the applicable limits specified in AWWA C-600.
- B. Acceptance of the piping installation shall be determined on the basis of testing allowances defined in the AWWA C600-99 standard. If any test of laid pipe discloses a testing allowance greater than that specified in Section 5.2.1.6, repairs, replacement and re-testing at the CONTRACTORS sole expense shall be accomplished in accordance with these specifications.
- C. The CITY will conduct random inspections and operational evaluations of the in line valves and blow off points to be certain that the total force main has been fully pressure tested

**END OF SECTION**

**SECTION 01700**  
**SUBSTANTIAL COMPLETION OF FACILITIES**

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**PART 1 - GENERAL REQUIREMENTS:**

**1.1 SUMMARY**

The work in this section includes general requirements evidencing completion of the work in preparation for final acceptance not otherwise found in Section 01720 As-Built Record Documents and the General Conditions.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

**3.1 COMPLETION PROCEDURES:**

General operating/Maintenance Instructions: Arrange for each installer of work requiring continuing maintenance (by the CITY) or operation, to meet with the CITY's personnel, at the project site, to provide basic instructions needed for proper operation and maintenance of the entire work. Include instructions by manufacturer's representatives where installers are not expert in the required procedures. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, cleaning and similar procedures and facilities. For operational equipment, demonstrate start-up shutdown, emergency operations, noise and vibration adjustments, safety, economy/efficiency adjustments, and similar operations. Review maintenance and operations in relation with applicable guarantees, warranties, agreements to maintain, bonds, and similar continuing commitment.

**3.2 FINAL CLEANING:**

General: Provide final cleaning of the work, at the time indicated, consisting of cleaning each surface or unit of work to the normal "clean" condition expected for a first-class cleaning and maintenance program. Comply with manufacturers' instructions for cleaning operations. The following are examples, but not by way of limitation, of the cleaning levels required:

1. Remove labels, which are not, required as permanent labels.
2. Wipe surfaces of mechanical and electrical equipment clean; remove excess lubrication and other substances.

3. Clean project site (yard and grounds), including landscape, development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petrochemical spills and other foreign deposits. Rake grounds, which are neither planted nor paved, to a smooth even-textured surface.

### **3.3 Removal of Protection:**

Except as otherwise indicated or requested by the CITY, remove temporary protection devices and facilities which were installed during the course of the work and dispose of them when no longer needed.

### **3.4 Compliancy:**

- A. Comply with safety and erosion control standards and governing regulations for cleaning operations. Do not burn waste materials at the site, or bury debris or excess materials on the CITY's property, or discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of them in a timely and lawful manner.
- B. Where materials of value are to become CITY property after completion of the work the CONTRACTOR shall store them as directed by the CITY.

**END OF SECTION**

**SECTION 01720**  
**AS-BUILTS/RECORD DOCUMENTS**

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**PART 1 - GENERAL**

**1.1 Scope of Work**

- A. This Section sets forth the requirements for preparing as-built/record drawings and documents for verification of construction and archiving for future use. CONTRACTOR shall secure the services of a Florida licensed surveyor to collect data and prepare as-built/record drawings.

**1.2 Reference**

- A. The preparation work shall be in accordance with this Section and supplementary details in the City of Daytona Beach Utilities Department Standard Details, latest edition.

**1.3 As-Built/Record Drawings**

- A. As-built/record drawings are required for all public facilities constructed. Prior to construction completion these as-built/record requirements will be reviewed to be certain the Contractor's surveyor has a clear understanding of what is required for completion of this work.
- B. In order to ensure that the City's project records are maintained to the highest standards and the information can easily be added to the City's electronic records the following information is required on all as-built/record drawings:
1. Pavement and curb widths shall be verified and dimensioned for each street at each block (for subdivisions) and as appropriate to confirm paving limits (on site plans).
  2. All radii at intersections shall be verified and dimensioned. This information is to be clearly indicated on the as-built/record drawings.
  3. Roadway elevations shall be recorded at all grade changes, 100' intervals along roadway, and other intervals as needed along all streets. Street centerline and curb invert elevations shall be recorded as noted.
  4. The as-built centerline profile of all streets shall also be shown on the plan and profile so it may be compared to the design profile grade lines. In the event that the as-built centerline longitudinal grade does not meet the City minimum standards, additional longitudinal grades of the adjacent curbing and similar roadway cross-section surveys to verify the correct cross slope,

- shall be required to verify that the system will function as originally designed.
5. Storm drainage structures shall be located and/or dimensioned from centerlines or lot lines as appropriate. Each structure shall be located by sub-meter GPS with latitude, longitude and elevation data.
  6. Storm drainage pipe invert and inlet elevations shall be recorded and clearly denoted as as-built information. Design elevations shall be crossed out and as-built information written next to it.
  7. Storm drainage pipe material, length, and size shall be measured and/or verified. This information is to be clearly indicated as being as-built information.
  8. All applicable topographic information pertinent to the on-site drainage system, such as ditches, swales, lakes, canals, etc. that are deemed necessary by the City to verify the functional performance of the storm water system, shall be noted. Normally, recording elevations every 100 feet at the top of bank and toe of slope will be required. Measurements shall be taken and recorded in order to accurately tie down these features to the roadway centerlines and to plat lines. Whenever possible, contour lines shall be utilized to graphically describe these topographic features.
  9. Retention areas shall have their top of bank and bottom elevations recorded. Actual measurements shall be taken and dimensions recorded of the size of all retention areas. Measurements shall be done from top of bank with side slopes indicated. Separate calculations shall be submitted to indicate required and provided retention volumes.
  10. Actual materials used and elevations and dimensions of overflow weir structures and skimmers shall be noted on the as-built.
  11. Storm drainage swale centerlines shall be located and elevations of flow line and top of bank shall be recorded every 100 feet. Side slopes shall also be indicated.
  12. Sanitary sewer manholes shall be verified and dimensioned from street centerlines or lot lines as appropriate. All rim and invert elevations shall be verified and recorded. This information shall be clearly indicated as being as-built information. Design Elevations shall be crossed out and as-built information written next to it.
  13. For subdivisions, proposed design finish floor elevations shall appear on all subdivision lots on the appropriate plan and profile sheet as well as on the master drainage plan.
  14. Sanitary Sewer line lengths, sizes, material, slope, etc., shall be verified and recorded, this information is to be clearly indicated as being as-built information.
  15. Sewer Laterals shall be verified and recorded at their clean out locations, stationing and offset distances shall be measured from downstream manholes towards upstream manholes. Invert information at cleanout shall be provided, and be located by sub-meter GPS with latitude, longitude and elevation data

16. Lift stations and force mains shall be verified and dimensioned from street centerlines or lot lines as appropriate. Force main depth and location including valves will be provided and tied to permanent above grade features. Dimensional and elevation information indicated on the approved plan shall be verified and recorded. This information shall be clearly indicated as being as-built information. Buried potable water lines and electrical service lines shall be clearly dimensioned, located, and labeled. Each lift station shall be located by sub-meter GPS with latitude, longitude and elevation data provided.
17. Curb cuts or metal tabs, used to mark sewer laterals, water services and water valves, shall be verified for presence and accuracy of location.
18. Potable and reclaimed water main lines shall be dimensioned off the baseline construction. Water main line material size, length and depth placed shall be noted. Locations of valves shall also be tied to baseline construction. This information shall be clearly indicated as being as-built information.
19. Potable and reclaimed water valves, tees, bends, all services, and fire hydrants shall be located by tying them to baseline construction (Sta. & Offset). Similarly, force main valves, tees and bends shall be located in the same manner. Stationing and offset distances shall be measured from downstream manholes to upstream manholes. All valves and hydrants shall be located by sub-meter GPS with latitude, longitude and elevation data provided.
20. For perpendicular crossings of storm water, sanitary sewer, potable water, or reclaimed water, the as-built plans shall clearly indicate which utilities are located over or under other utilities, as necessary.
21. Any special features such as, concrete flumes, lake banks, walls, fencing, etc. which are a part of the approved construction drawings should also be located and dimensioned.
22. If an approved subdivision plat or site plan shows a conservation easement, the project surveyor should provide the exact location of the specimen tree(s) from the right-of-way or property lines and proposed easement boundaries on the as-built drawing. The as-built location of these trees will help verify the sufficiency of the conservation easement prior to plat recording or certificate of occupancy.
23. When storm water, potable water, reclaimed water, or sanitary sewer improvements are located within an easement, the as-built drawing will accurately depict the location of the easement itself as well as the exact location of the improvements within the easement. This is required in order to verify that the improvements have been properly located and to ensure that future subsurface excavation to perform remedial repair can be accomplished without disturbance beyond the easement.
24. As-built drawings are to be prepared by a Florida licensed surveyor and shall include a signed certification statement by the Florida licensed



engineer of record. A Mylar set of as-built record drawings shall be provided with a digital copy in a compatible AutoCAD format.

25. Elevations shall be referenced to NGVD 1988 Data. As-built survey information shall be referenced to at least two Florida State Plane east coordinates NAD 83.
26. Benchmark Datum utilizes monumentation from the North American Vertical Datum of 1929 with elevations adjusted to NGVD 1988 data. Any NAVD 1929 monument with the limits of construction is to be protected.

#### 1.4 Submittals

- A. CONTRACTOR shall submit each month to CITY the Project Activity Summary that shows current construction activities and a copy of notices to agencies including the City regarding road closures; plus a record of events that will be needed in the future.
- B. CONTRACTOR shall submit to CITY as required the proposed shut-off schedule, capping, temporary service scheduling, record of notices to customers and proposed roadway closings.
- C. CONTRACTOR shall submit copies of published notices.
- D. CONTRACTOR shall submit Record Drawings on a CD containing Auto-CADD files with no other formats inserted in the drawings, PDF versions and a Mylar copy. When the As-Built are delivered for clearance of water lines (two paper copies), they will be scheduled for chlorination. CITY will not release the drinking water bacteriological laboratory report to Volusia County Health Department until the As-built information meets CITY requirements. CONTRACTOR will have 60 days from the time that the bacteriological samples are collected to submit the as-built Mylar and CD to CITY. Send the two paper copies for approval before making the Mylar. If CONTRACTOR goes past the 60 days re-chlorination will be required and pay for the bacteriological laboratory report will be required. Below are minimum detail samples of how the As-built drawing information will need to be presented
- E. These are examples of how to display and label valves, fittings, and pipes on the plans. Include a location arrow going to the identified object:

Valve Example:

20" GATE VALVE  
STA. 22+33 (LT.55.0')  
LAT. = 29°12'53.009"N  
LONG. = 81°04'03.355"W  
N = 1,774,373.4058  
E = 634,602.7566

TOP ELEV. = 27.50  
FINISH GROUND ELEV. = 30.50

Pipe Example:

20" DIP WATER MAIN  
STA. 22+00 (RT.55.0')  
LAT. = 29°12'50.009"N  
LONG. = 81°04'26.355"W  
N = 1,774,373.4058  
E = 634,602.7566  
TOP OF PIPE ELEV. = 27.50  
FINISH GROUND ELEV. = 30.50

(All Bench Marks used must be shown on the plans)

Bench Mark Example:

BM#13  
STA. 20+33 (LT. 85.5')  
3/4" Iron Rod with Plastic Cap...  
N = 1,774,373.4058  
E = 634,602.7566  
LAT. = 29°04'53.355" W  
LONG. = 81°04'53.355" W  
ELEV. = 32.55

## **PART 2- EXECUTION**

### **2.1 General**

All drawings shall be prepared to True State Plane Coordinates. CONTRACTOR shall provide all materials, equipment, labor needed to prepare and submit accurate As-Built/Record Drawings.

- A. It is acceptable to CITY if the surveyor utilizes an after the fact approach to collecting and verifying the location and depth by vertical PVC pipes placed by the CONTRACTOR as markers for this purpose. The surveyor shall verify to the accuracy defined in Florida Statutes the As-built conditions and certify the Record Drawings.
- B. CITY shall not be considered the best source of information for valve locations that may have been lost during final grading, the surveyor or CONTRACTOR shall excavate and properly mark all valve boxes and each valve shall have a tag or color coded to define water, sewer or reuse water valves. The use of temporary PVC pipe markers color coded is acceptable so long as cross references are provided on the Record Drawings to prevent the tops from a water valve being placed on a sewer valve.

- C. THE CONTRACTOR SHALL PROVIDE THE UTILITIES DEPARTMENT ENGINEERING DIVISION THE FINAL AS BUILT/RECORD DRAWINGS ON CD AND MYLARS. THE AS-BUILT RECORD DRAWINGS SHALL BE PREPARED USING AUTOCAD FORMAT 2010 OR LATER. IN MODEL SPACE THE DRAWING SHALL BE IN FL83-EF STATE PLANE COORDINATES AND SHALL BE ABLE TO BE INSERTED INTO THE CITY'S OVERALL GIS SYSTEM. THE RECORD DRAWINGS SHALL ALSO BE PRINTED ON MYLAR SIGNED AND SEALED AS ALLOWED BY STATE OF FLORIDA REGULATIONS. A DISCLAIMER MAY BE NOTED IN A TRANSMITTAL LETTER PLUS THE SURVEYOR MAY ADD A SPECIAL NOTICE ON EACH SHEET REGARDING THE LOCATION OF THE TRUE ORIGINAL RECORD DRAWINGS OR PLACE LIMITS ON RESPONSIBILITY SHOULD SOMEONE IN THE FUTURE SOMEONE NEED TO MODIFY THE MYLARS.
- D. Identify the source markers for the survey used for Record Drawings.

**END OF SECTION**

**DIVISION**

**2**

**SITE**

**WORK**

**SECTION 02202  
EXCAVATING, BACKFILLING AND COMPACTING**

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**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section includes the requirements for furnishing equipment, labor and materials, and performing all operations necessary and incidental to complete the required work.
- B. Payment for all work described in this Section shall be included in the unit prices for the associated primary items of work such as pipe, utility and stormwater system components, jack and bore, horizontal and vertical drilling operations, etc... unless otherwise noted in the plans.

**1.2 REFERENCES**

- A. The requirements of the CITY Utility Department Standard Details, latest edition, The Florida Department of Environmental Protection-Stormwater Erosion and Sedimentation Control Inspector's Manual, latest edition and Section 01200, 01568.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

**3.1 CONSTRUCTION**

- A. Clearing: The site of the work shall be cleared of all trees, shrubs, improvements and objectionable material that interfere with the completion of the proposed work. The CONTRACTOR shall be responsible for the offsite disposal of all clearing debris. Trees and shrubs that will not interfere with construction shall be protected from damage. Clearing shall be considered as an incidental item with the cost to be included in the applicable primary items of work unless otherwise noted in the plans.
- B. Excavation: Perform excavation of all soils and materials encountered to the dimensions and depths specified or shown on the drawings as necessary to construct the associated applicable items of work. Undercutting will not be

permitted, except when ordered by the CITY. Material suitable for backfill shall be stockpiled near the site. Rock and cemented coquina shall be the property of the CITY and be spoiled outside the area in a neat manner, as directed by the CITY. Other soils and materials unsuitable for backfill shall be disposed of by the CONTRACTOR in areas provided by him. Where it is necessary to cut roots projecting into an excavation or where it is necessary to trim branches for equipment clearance, all severed root ends or cuts to branches over ½” diameter shall be treated with an asphalt base pruning paint. Backfill over exposed roots as soon as possible.

C. Rock and Cemented Coquina: Where rock and cemented coquina are encountered, the trench bed shall be excavated to a depth of 1/4 of the pipe diameter but in no case less than 4” below the bottom of the pipe. All undercut trench excavation shall be backfilled with suitable materials and made firm and unyielding as specified in the following paragraphs under Unstable Soils and Materials.

D. Unsuitable Soils and Materials: In the event that unsuitable soils and material is encountered at or below the excavation depth specified or shown on the drawings, the CITY shall be notified. Such material shall be removed, disposed of and replaced with suitable material. The CITY shall determine the methods and materials to be used, based upon the condition of the excavation, the pipe or structure to be supported, and the availability and character of stabilizing materials.

1. Methods and materials used for replacement shall be one of the following as directed by the CITY in writing:

a. Suitable earth or sand compacted in the trench. Materials shall be furnished and paid for as a part of the pipe or structure bid item.

b. Gravel or crushed limerock compacted in the trench. Materials shall be furnished and paid for as part of the pipe or structure bid item.

c. Existing materials, stabilized after removal and then replaced and compacted in the trench and paid for as part of the pipe or structure bid item.

E. Trenching:

1. Keep pipe laying operations as close to the excavation operation as possible during the prosecution of the work. The CITY reserves the right to stop the excavation-at any time when, in its opinion, the excavation is not properly safe-guarded or is opened too far in advance of the pipe laying.

2. Pipe trenches shall be excavated to a depth that will insure a minimum of 36” of cover for all types of pipe, except service laterals. Trenches shall be only of sufficient width to provide a free working space on each side of the pipe. The maximum width of trench at the top of the pipe and at the bottom of the trench shall not be greater than two feet wider than the greatest exterior diameter of the pipe. If this maximum width is exceeded, it shall be the CONTRACTOR's responsibility to provide, at no additional cost to the owner, such additional bedding or select backfill materials as the CITY may require. The excavation below the spring line shall be made to conform as near as possible to the shape of the lower third of the pipe. To protect the pipe lines from unusual stresses, all work shall be done in open trenches. Excavation shall be made for bells of all pipes and of sufficient depth to permit access to the joint for construction and inspections. In no case will the bells be used to support the body of the pipe.
3. In order to avoid existing utilities, at times it may be necessary for the pipe to be laid deeper than the minimum cover specified in the preceding paragraph. At such time, the CONTRACTOR will not be allowed extra compensation for additional excavation involved.
4. In case excavation has been made deeper than necessary, a layer of concrete, fine gravel or other material satisfactory to the CITY shall be placed, at no extra cost, to secure a firm foundation for the lower third of each pipe. Where possible, excavated material shall be placed so as not to interfere with public travel. Bridging shall be provided for public travel and to afford necessary access to public or private premises. Bridging shall be considered as part of the excavation operation and shall be supplied at no additional cost to the Owner.

F. Structures Excavation: (For inlets, manholes, valve pits and similar structures)

1. Remove sufficient material to allow proper space for erecting and removing forms. The elevations of the bottoms of footings, if shown on the drawings, shall be considered as approximate only, and the CITY may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary to secure a satisfactory foundation. Excavation for structures shall be sufficient to leave at least 12” in the clear between their outer surfaces and the embankment or timber that may be used to protect them. Backfill of earth under structures will not be permitted. Excess excavation for structures shall be filled with thoroughly compacted sand, gravel, or concrete at the expense of the CONTRACTOR.
2. After excavation for a structure is completed, the CONTRACTOR shall notify the CITY to that effect. No concrete or reinforcing steel shall be placed until the CITY has inspected the depth of the excavation and the character of the foundation material. Materials for roadways, road

shoulders, alleys, or driveways, shall be compacted to a minimum of 98% of the maximum density as determined by AASHTO Method T-180.

G. Sheeting and Shoring:

1. The CONTRACTOR shall provide all trench and structural bracing, sheeting or shoring necessary to construct and protect the excavation, existing utilities, structures and private property of all types and as required for the safety of the employees. Sheeting shall be removed or cut off by the CONTRACTOR during backfilling operations as directed by the CITY.
2. Removal of shoring for structures shall be done in such a manner as not to disturb or mar finished masonry or concrete surfaces.

H. Drainage: Grading shall be controlled in the vicinity of excavations so that the surface of the ground will be properly sloped to prevent water from running into trenches or other excavated areas. Any water that accumulates in the excavations shall be removed promptly by well point or by other means satisfactory to the CITY in such a manner as to not create a nuisance to adjacent property or public thoroughfare. Trenches shall be kept dry while pipe is being laid. Bridging of dewatering pipe shall be provided where necessary. Pumps and engines for well point systems shall be operated with mufflers, and at a minimum noise level suitable to a residential area. The CONTRACTOR will not be allowed to discharge water into the owner's storm drainage system without the written approval of the CITY. Approval will be subject to the condition that the storm sewer be returned to its original conditions.

I. Backfill:

1. Trenches shall be backfilled immediately after the pipe is laid unless other protection for the pipe line is provided. Clean earth, sand, crushed limerock, or other material approved by the CITY shall be used for backfill. Backfill material shall be selected, deposited and compacted so as to eliminate the possibility of lateral displacement of the pipe. Backfill material shall be solidly tamped around the pipes in six (6) inch layers up to a level at least one foot above the top of the pipe. Backfilling shall be carried out simultaneously on both sides of the pipe.
2. The remainder of the backfill shall be deposited and compacted by puddling water, flooding or mechanical tampers except in areas where paving is to be placed over the backfilled trench. In these areas, the entire depth of backfill shall be deposited in six (6) inch layers and compacted by hand or mechanical tampers. Compaction shall be carried out to achieve a density of at least 98% of the maximum density as determined by ASSHTO Method T-180. Under areas to be paved, flowable fill may be used for backfill consolidation after tamping to one foot over the pipe, as



specified, provided the method is first approved by the CITY and the density requirements are met.

3. In areas to be paved, density tests for determination of the specified compaction shall be made by a testing laboratory and spaced one in every 300 feet of trench cut. Density tests shall be considered a part of the backfill operation. It is the intent of this specification to secure a condition where no further settlement of trenches will occur. When backfilling is completed, the roadway base for pavement replacement may be placed immediately.

- J. Structures Backfill: After completion of foundation footings and walls and other construction below the elevation of the final grades, and prior to backfilling, all forms shall be removed, and the excavation shall be cleared of all trash and debris. Material for backfilling shall consist of the excavated materials, borrow sand or other approved materials, and shall be free of trash, lumber or other debris. Backfill shall be placed in horizontal layers not to exceed a nine (9) inch thickness and have a moisture content such that a density may be obtained to prevent excessive settlement or shrinkage. Each layer shall be compacted by hand or approved machine tampers with extreme care being exerted not to damage pipe or structures. Backfill shall be placed and compacted evenly against the exposed surfaces to prevent undue stress on any surface.

K. Restorations of Areas Disturbed by Construction:

1. All improvements and natural systems on public or private property which have been damaged, altered or removed during construction, shall be restored in accordance with the respective owner's permit requirements or CITY requirements to conditions equal to or better than conditions existing prior to beginning work unless otherwise noted in the plans. Restoration of shoulders shall consist of stabilizing, grading and sodding as directed by the CITY. The cost of doing this work shall be included in the cost of the various applicable primary items unless otherwise directed in the plans. Photographs as specified in Section 01200 will be used as an aid in determining existing condition details prior to construction.
2. Materials for roadways, road shoulders, alleys, or driveways, shall be compacted to a minimum of 98% of the maximum density as determined by ASSHTO Method T-180. The cost of this work and furnishing new materials shall be included in the cost of the applicable items of work as no separate payment will be made unless a separate bid item is provided.

L. Grading:

1. The CONTRACTOR shall within a maximum of two (2) weeks from date of excavation, rough grade existing surfaces disturbed by construction to provide surfaces suitable for proper use of moving machines.
2. Finished areas around structures shall be graded smooth and hand raked. All finished areas shall be safely traversable by pedestrians and meet the elevations and contours shown on the drawings. Lumber, earth clods, rocks and other undesirable materials shall be removed from the site.

M. Disposal of Materials: Such portions of the excavated soils and materials as needed and as suitable shall be used for backfilling and grading about the completed work to the elevations as shown on the drawings or as directed. Unsuitable materials consisting of rock or cemented coquina shall be the property of the CITY. CONTRACTOR shall remove, stockpile for CITY pick up, and replace with dry compacted granular material, satisfactory to the CITY unless otherwise directed in the plans and specifications. Other unsuitable soils and materials and suitable excavated material in excess of the quantity required for completion of the work shall belong to the CONTRACTOR and be disposed of by the CONTRACTOR in areas provided by the CONTRACTOR unless otherwise directed in the plans and specifications.

N. Sediment, Erosion and Dust Control: It shall be the responsibility of the CONTRACTOR to take all necessary steps to prevent soil from eroding onto all paved areas and into all natural watercourses, ditches, private properties and the public sewer systems. Streets and haul roads shall be swept by an automatic, self-contained mechanical sweeper. Prevent air and water pollution through dust and dirt control to the satisfaction of the CITY in the following areas:

1. Streets, sidewalks and drives within the limits of the contract and all construction material stockpile and field office site locations.
2. Any haul roads leading to or away from the project that are used by the CONTRACTOR, his sub-contractors and his material suppliers.

The CONTRACTOR shall comply with the above requirements on a daily basis. If the CONTRACTOR fails to perform the above work in a satisfactory manner, all work, except cleanup operations, will be stopped immediately until the CONTRACTOR has complied with the above requirements to the satisfaction of the CITY.

**END OF SECTION**

**SECTION 02489  
GRASSING**

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**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

- A. This Section set forth the work to establish and maintain a thriving stand of grass, as determined by the CITY, within the areas disturbed by construction operations. Disturbed areas shall be sodded unless they are indicated in the plans to be seeded and mulched.

**1.2 REFERENCES**

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition sections 570, 575, 981, 982 and 983 deference to the CITY requirements of this Section.

**1.3 SUBMITTALS**

- A. At the CITY's discretion the CONTRACTOR shall provide a certification of quality from the supplier that the materials are free from invasive species and noxious pests and meet or exceed the specification and referenced requirements.

**1.4 JOB CONDITIONS**

- A. The CONTRACTOR shall have photographs of the before conditions to ensure that the grassing is properly installed to meet or exceed the pre-construction condition.

**PART 2 - PRODUCTS**

**2.1 GRASS SOD**

- A. Sod shall comply with the requirements of Section 575, 981, and 983 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition with the exceptions that all required water, fertilizer, slope pegging and maintenance will be included in the unit cost of the sod and the sod type shall not be limited to the three types or the CONTRACTOR's option as set forth in Sub-section 981-2.1.

- B. Sod shall match the adjacent existing type or shall be Argentina Bahia if the existing sod is weedy and unidentifiable. Sod shall be installed within 5 days after cutting.
- C. Sod shall be in good health, have adequate moisture at the time of delivery and installation and be free from weeds, other objectionable vegetation, fungus, insects and disease of any kind. Dead or insect infested sod shall be replaced by the Contractor at no cost to the Owner if manifestation of damage becomes apparent within the one month maintenance period.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION AND MAINTENANCE**

- A. Sod shall be placed to achieve a smooth and easily traversable finish. Portions of unhealthy sod shall be removed and replaced within 10 days of placement at no additional cost.
- B. Sod shall be watered as necessary to keep it alive and healthy until the CITY accepts the project. For areas of sod placed adjacent to well maintained lawns the CONTRACTOR shall see to it that the property owner is pleased with the work and that the property owner's irrigation system has not been broken. Storage of sod within the street right of ways shall be kept at a minimum. Each area of the project that is completed and ready for grassing acceptance should be listed in an attachment to the periodic pay estimate.
- C. Fertilizer, water and or mowing will be required for the grassed areas, as directed by the CITY, throughout the duration of the project to ensure that they are green, thriving and of good appearance on the day the CITY accepts the project. One month prior to the end of the warranty period all sod that is not fully established shall be replaced.
- D. CONTRACTOR may secure a fire hydrant meter following payment of established fees to provide for a source of water. The cost of all water used by the project shall be the responsibility of the CONTRACTOR. If the CONTRACTOR fails to allow the Utility Billing personnel to record the Fire Hydrant meter volumes, the Fire Hydrant meter shall be returned immediately. No partial or final project payments will be allowed if the outstanding water meter use fees are unpaid.

**END OF SECTION**

**SECTION 02492  
FENCING**

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**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

The work specified in this Section consists of furnishing and installing new fencing as herein specified for locations directed by the CITY'S CONTRACT ADMINISTRATOR.

**1.2 SUBMITTALS**

The CONTRACTOR may be required to provide proof that the materials being used meet the standards defined herein.

**1.3. JOB CONDITIONS**

The CONTRACTOR is hereby advised that the existing fencing that must be removed as required during the construction is disposed of properly. If directed, the CONTRACTOR shall furnish and install new like kind fence. The OWNER reserves the right to not authorize the construction of fencing.

**PART 2 - PRODUCTS**

**2.1 FENCING**

The work specified in this Section consists of furnishing and installing fencing as shown on plan, or as directed in field. Construction and relocation of fences shall conform to the requirements of Section 550 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, dated 2000, and Florida Department of Transportation Design Standards, Indexes No. 801 and 802, dated 2008, except as amended herein (includes concrete).

The work specified in this Section consists of furnishing and erecting fence of the type like kind as required in accordance with these specifications and in conformity with the existing lines, grades, notes and typical sections.

**END OF SECTION**

**SECTION 02610  
PAVING, MILLING & RESURFACING**

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**PART 1- GENERAL**

**1.1 SUMMARY**

This Section sets forth the material and work requirements necessary to construct a complete finished compacted structural support base, stabilized subgrade and flowable fill.

**1.2 REFERENCES**

FDOT Standard Specifications for Road and Bridge Construction latest edition, material and process requirements with deference to CITY requirements in the Public Works Roadway Details latest edition unless otherwise noted in the Contract Bid Documents.

**END SECTION**

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**SECTION 02611  
BASE, STABILIZED SUBGRADE AND FLOWABLE FILL**

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**PART 1 – GENERAL**

**1.1 SUMMARY**

This Section sets forth the material and work requirements necessary to construct a complete finished compacted structural support base, stabilized subgrade and flowable fill.

**1.2 REFERENCE**

The FDOT Standard Specifications for Road and Bridge Construction 2000 edition for material and process requirements with deference to CITY requirements in the Public Works Roadway Details latest edition unless otherwise noted in the Contract Bid Documents.

**1.3 FDOT BASE SECTIONS**

Sections 200 (@ LBR 100), 204 (in the form of recycled concrete @ LBR 130) and 280 (@ LBR 100)

**1.4 FDOT STABILIZED SUBGRADE SECTION**

Section 160 (Type B stabilizing only)

**1.5 FDOT FLOWABLE FILL SECTION**

Section 121

**END SECTION**

02611- 1 of 1

**SECTION 02616  
FITTINGS FOR PRESSURE SERVICE**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets forth the requirements for materials and methods to furnish and install buried fittings on ductile iron wastewater force mains and HDPE wastewater force mains.

**1.2 REFERENCE**

Utility Department Standard Details latest edition and Sections 15066 and 15101.

**1.3 JOB CONDITIONS**

Field conflicts may require additional fittings and minor adjustments not shown on the plans. The Contractor shall provide and install fittings unless directed to deflect the pipe to avoid the need.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

**3.1 FITTINGS:**

- A. Fittings 3-inch through 24-inch diameter shall be mechanical joint ductile iron conforming to the requirements of ANSI/AWWA C153/A21.53 or, cast iron fittings conforming to the requirements of ANSI/AWWA C110/A21.10. Fittings and joint systems shall be compatible with the pipe system and provided at a Pressure Class that matches or exceeds the pipe with which they are to be installed.
- B. Restrained joints shall be of the essentially boltless type which relies on metal lugs, rotating retainer rings, or stainless steel gaskets for joint restraint. Joint restraints connecting ductile-iron pipe to ductile iron pipe or fittings shall be a split retainer type band or ring made of ductile iron. Split restrained joint systems shall be the preferred Megalug joint restraint as manufactured by EBBA Iron, Inc on the CITY approved product list or its equivalent as approved by CITY.



- C. Buried fittings shall have bituminous coating approximately 1 mil thick applied to the outside. The finished coating shall be continuous, smooth, neither brittle when cold nor sticky when exposed to the sun and shall be strongly adhered to the fitting.
- D. Cement Mortar Lining or Ceramic Epoxy Lining typical of fittings in water, sewer or reuse water systems is required.

**END OF SECTION**

**SECTION 02641  
PRESSURE PIPE CLEANING**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets forth the requirements for materials and methods to clean new potable water, reclaimed water, raw water, sanitary and stormwater pressure pipe lines.

**1.2 REFERENCES**

The City Utilities Department Standard Details, latest edition and Section 01660.

**1.3 SUBMITTALS**

The CONTRACTOR shall submit planned procedures to the CITY for review prior to beginning work. The CITY Utilities Department staff will advise as to whether or not the pipe cleaning and pigging procedures will be acceptable.

**1.4 CONTRACTOR RESPONSIBILITIES**

A. The CONTRACTOR shall provide and pay for all necessary labor, materials and equipment, including cleaning pigs as required, to ensure the pipe is cleaned. Potable water pipe cleaning shall be completed and accepted by the CITY before any effort is made to disinfect the piping.

**1.5 JOB CONDITIONS**

A. The CONTRACTOR shall review the field conditions prior to placing a bid for this project and evaluate the cleaning schedule that will be required.

B. The CITY's approval is required to clean a segment of the new piping system prior to moving on to another section.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

**3.1 PREPARATION:**

The CONTRACTOR shall request approval from CITY a minimum of three (3) business days in advance for coordination of the pigging and flushing operation due to the additional water resource demand on the CITY system. At CITY discretion night time operations may be specified.

**3.2 PIGGING & FLUSHING:**

- A. Cleaning of lines less than 6 inches inside diameter shall be accomplished by thorough flushing of the line using a CITY approved water source. Cleaning of lines 6 inches inside diameter or greater shall be accomplished using a flexible polyurethane foam pipeline cleaner, commonly known as a "pig", manufactured for cleaning pressure lines. The pig shall be new and have a turning pattern, for use in water systems. It shall have a resilient peripheral surface that engages with the inner cylindrical wall of the pipe to maintain a sliding seal. The pig may have one or more sealing surfaces. This seal is maintained for propelling and must be abrasive resistant.
- B. When necessary, the pig shall also have abilities to scratch, scrape, plow and jet to assist in cleaning and flushing the pipe of debris. The pig shall rotate for longer wear and be able to reduce itself to a minimum of 65% of its original cross-sectional area. It must then be able to return to its original form while maintaining its seal and ability to clean.
- C. The pig shall have the ability to negotiate- fabricated mitered bends, short radius bends, short radius elbows, tees, crosses, and multi-dimensional pipe sizes and valves.
- D. Follow manufacturer's recommendations for use of "pig" in cleaning the line and conduct flushing and cleaning with CITY's representative in attendance. After passing through the pipeline the CITY's representative shall determine if subsequent pigging and flushing must be performed.
- E. The field pigging operation shall clearly establish that the piping is adequately cleaned.
- F. All pipe and fittings used to launch and receive the pigs shall be removed at no additional cost to the CITY. The cost for constructing the pig launch and receiving piping shall be included as part of the pipe installation cost unless a separate line item is found in the bid form.

**END OF SECTION**

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**SECTION 02650  
DISINFECTION OF WATER MAINS**

Rev. 01/30/12

**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

This Section sets forth the specific requirements including materials and methods to disinfect potable water mains, document the process and acquire a State of Florida Department of Environmental Protection/Volusia County Health Department clearance for use.

**1.2 REFERENCES**

Section 01660, Section 02641, CITY Utilities Department Standard Details, latest edition, AWWA C 651 and ancillary applicable standards shall apply.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

**3.1 PROCESS**

- A. Upon completion of new pipe line it shall be cleaned and pressure tested in accordance with the latest edition of the CITY Utilities Department Standard Details and Sections 01660 and 02641
- B. Provide two paper copies of the water as-built/Record Drawings and one CD of the AutoCAD file for approval ***before*** disinfection/chlorination can be scheduled.
- C. Once the as-built/ Record Drawings have been approved disinfection/chlorination can be scheduled and will be coordinated through the Utility Inspector and Utilities Department Laboratory. CITY staff will operate all existing system valves.
- D. The CONTRACTOR is responsible for the installation of sampling points and onsite work associated with testing and sampling points.

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- E. The CITY Utilities Department staff will collect samples only for water mains within the right of way or utility easements that will be public. Private water systems will not be sampled by CITY staff.
- F. Once the samples have passed in accordance with State of Florida Department of Environmental Protection/Volusia County Health Department regulations, a PDF copy of the bacteriological test report will be sent to the Engineer of Record. The Engineer of Record will then fill out a water main clearance application for the CITY's Utilities Department to file for water main clearance.
- G. Furnish 1 Mylar set of the Water As-Builts/ Record Drawings to the City's Utilities Department.
- H. Upon clearance by Volusia County Health Department, the water line may be placed in service by CITY.

### **3.2 JOB CONDITIONS**

- A. The CONTRACTOR shall review the field conditions prior to placing a bid for this project and evaluate the testing schedule that will be required. To the maximum extent possible the CONTRACTOR shall schedule field tests as soon as possible to allow segments of the system to be cleared for use and to allow pavement replacement to begin.
- B. The CONTRACTOR shall submit a chlorination/disinfection testing plan to the CITY for each segment of the new system to be tested prior to moving on to another section. The plan shall be coordinated with and found to be acceptable by the CITY a minimum of two (2) weeks in advance of the requested testing time to verify that a partial clearance or approval will be allowed.

### **3.3 FINAL FIELD TESTING**

The CONTRACTOR shall notify the CITY at least three (3) business days in advance of beginning tests. In the case of water main pigging operations, chlorination operations and tests the CONTRACTOR must secure advance approval from the Utilities Department Water System Manager. (NOTE: BECAUSE WATER MAIN FLUSHING INCREASES WATER DEMANDS THE WATER MANAGER MAY NOT ALLOW TESTS TO BE PERFORMED DURING NORMAL WORKING HOURS.)

### 3.4 FIELD TEST STANDARDS FOR WATER MAINS

- A. The CONTRACTOR shall take adequate regulatory agency compliant precautions to prevent water pollution from the discharge of pigging and disinfection water offsite. Appropriate treatment shall be provided onsite. **A plan for de-chlorinating the super-chlorinated disinfection water shall be provided to the CITY for review and acceptance a minimum of seven (7) days prior to disinfection taking place.** The super-chlorinated disinfection water shall not be allowed to remain in the water main for more than seventy-two (72) hours. If the super-chlorinated disinfection water remains in residence for more than seventy-two (72) hours the water main system will be considered damaged and will require replacement and re-testing by the CONTRACTOR at no additional cost to the CITY.
- B. Pressure tests shall be conducted after laying and to the extent practicable on the entire system before backfilling. **Pressure piping and valves shall be statically tested at 150 psig. The test pressure shall be maintained for an uninterrupted minimum time period of four (4) hours and be measured at the high point in the line. Hydrostatic Testing per Section 5.2 ANSI/AWWA C600-99** All air shall be expelled from the line before applying the test pressure. Exposed pipe, joints and other potential leak sources shall be carefully examined for leaks.
- C. Acceptance of the piping installation shall be determined on the basis of testing allowances defined in the AWWA C600-99 standard. If any test of laid pipe discloses a testing allowance greater than that specified in Section 5.2.1.6, repairs or replacements shall be accomplished in accordance with these specifications
- D. The CITY will conduct random reviews of the in line valves and water services to be certain that the total water main has been fully pressure tested.

**END OF SECTION**

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**DIVISION**

**3**

**CONCRETE**

**SECTION 03250**  
**CONCRETE JOINTS AND JOINT ACCESSORIES**

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**PART 1 GENERAL**

**1.1 SCOPE OF WORK**

- A. Furnish all labor, materials, equipment and incidentals required and install accessories for concrete joints as shown on the Drawings and as specified herein.

**1.2 SUBMITTALS**

- A. Submit, in accordance with Section 01300, shop drawings and product data. Submittals shall include the following:
  - 1. Standard Waterstops: Product data including catalogue cut, technical data, storage requirements, splicing methods and conformity to ASTM standards.
  - 2. Special Waterstops: Product data including catalogue cut, technical data, location of use, storage requirements, splicing methods, installation instructions and conformity to ASTM standards.
  - 3. Premolded joint fillers: Product data including catalogue cut, technical data, storage requirements, installation requirements, location of use and conformity to ASTM standards.
  - 4. Bond breaker: Product data including catalogue cut, technical data, storage requirements, installation requirements, location of use and conformity to ASTM standards.
  - 5. Compressible joint filler: Product data including catalogue cut, technical data, storage requirements, installation requirements, location of use and conformity to ASTM standards.
  - 6. Bonding agents: Product data including catalogue cut, technical data, storage requirements, product life, application requirements and conformity to ASTM standards.
- B. Certifications
  - 1. Certification that all materials used within the joint system are compatible with each other.

**1.3 REFERENCE STANDARDS**



- A. American Society for Testing and Materials (ASTM)
  - 1. ASTM A675 - Standard Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality, Mechanical Properties.
  - 2. ASTM C881 - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
  - 3. ASTM C1059 - Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
  - 4. ASTM D1751 - Standard Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction. (Nonextruding and Resilient Bituminous Types).
  - 5. ASTM D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
- B. U.S. Army Corps of Engineers (CRD).
  - 1. CRD C572 - Specification for Polyvinylchloride Waterstops.
- C. Federal Specifications
  - 1. FS SS-S-210A - Sealing Compound for Expansion Joints.
- D. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply unless otherwise noted.

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- A. The use of manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.
- B. All materials used together in a given joint (bond breakers, backer rods, joint fillers, sealants, etc) shall be compatible with one another. Coordinate selection of suppliers and products to ensure compatibility. Under no circumstances shall asphaltic or bituminous bond breakers or joint fillers be used in joints receiving sealant.
- C. All chemical sealant type waterstops shall be products specifically manufactured purpose for which they will be used and the products shall have been successfully similar structures for more than five years.

### **2.02 MATERIALS**

A. Waterstops

1. Type A Expansive Waterstops - Non-expansion joint. The waterstops shall be preformed hydrophilic rubber seals. Installation adhesives used with the expansive waterstops shall be as recommended by the waterstop manufacturer. The waterstop shall be Adeka Ultraseal as distributed by Mitsubishi of Houston, TX; Hydrotite by Greenstreak Plastic Products, St. Louis, MO, or equal.

B. Premolded Joint Filler

1. Premolded joint filler - structures. Self-expanding cork, premolded joint filler shall conform to ASTM D1752, Type III. The thickness shall be 3/4-in unless shown otherwise on the Drawings.
2. Premolded joint filler - sidewalk and roadway concrete pavements or where fiber joint filler is specifically noted on the Drawings. The joint filler shall be asphalt-impregnated fiber board conforming to ASTM D1751. Thickness shall be 3/4-in unless otherwise shown on the Drawings. Fiber joint filler shall be sealed with a joint sealant where recommended by the joint filler manufacturer.

C. Bond Breaker

1. Bond breaker tape shall be an adhesive-backed glazed butyl or polyethylene tape which will satisfactorily adhere to the premolded joint filler or concrete surface as required. The tape shall be the same width as the joint unless otherwise noted.
2. Except where tape is specifically called for on the drawings, bond breaker for concrete shall be either bond breaker tape or a non-staining type bond prevention coating such as Williams Tilt-up Compound by Williams Distributors Inc.; Silco seal 2000F, by SCA Construction Supply Division, Superior Concrete Accessories or equal.

D. Bonding Agent

1. Epoxy bonding agent shall be a two-component, solvent-free, moisture insensitive, epoxy resin material conforming to ASTM C881 (2002), Type V. The bonding agent shall be Sikadur 32 Hi-Mod by Sika Corporation of Lyndhurst, N.J.; Concreative Liquid (LPL) by Master Builders of Cleveland, OH or equal.
2. Latex bonding agent shall be a non-reemulsifiable acrylic-polymer latex conforming to ASTM C1059, Type II.

E. Compressible Joint Filler

1. The joint filler shall be a non-extruded watertight strip material use to fill expansion joints between structures. The material shall be capable of being compressed at least 40 percent for 70 hours at 68 degrees F and subsequently recovering at least 20 percent of its original thickness in the first 1/2 hour after unloading. Compressible Joint filler shall be Evazote 380 E.S.P, by E-Poxy Industries, Inc., Ravena, NY or equal.

### **PART 3 EXECUTION**

#### **3.1 INSTALLATION**

##### **A. Waterstops**

1. Install standard waterstops for all joints where waterstops are indicated on the Drawings, unless specifically noted otherwise. Waterstops shall be continuous around all corners and intersections so that a continuous seal is provided. Splices shall be made by welding.
2. Install special waterstops at joints where specifically noted on the Drawings. Waterstops shall be continuous around all corners and intersections so that a continuous seal is provided.
3. Each piece of the waterstop shall be of maximum practicable length to provide a minimum number of connections or splices. Connections and splices shall conform to the manufacturer's recommendations and as specified herein.
4. Waterstops shall be terminated 3-in below the exposed top of walls.
5. Prepare the joint surfaces, install primers or adhesives, and install Type A expansive waterstops in accordance with the manufacturer' instructions.

##### **B. Construction Joints**

1. Make construction joints only at locations shown on the Drawings or as approved by the Engineer. Any additional or relocation of construction joints proposed by the Contractor, must be submitted to the Engineer for written approval.
2. Additional or relocated joints should be located where they least impair strength of the member. In general, locate joints within the middle third of spans of slabs, beams and girders. However, if a beam intersects a girder at the joint, offset the joint a distance equal to twice the width of the member being connected. Locate joints in walls and columns at the underside of floors, slabs, beams or girders and at tops of footings or floor slabs. Do not locate joints between beams, girders, column capitals, or drop panels and the slabs above them. Do not locate joints between brackets or haunches and walls or columns supporting them.

3. All joints shall be perpendicular to main reinforcement. Continue reinforcing steel through the joint as indicated on the Drawings. When joints in beams are allowed, provide a shear key and inclined dowels as approved by the Engineer.
4. Provide sealant grooves for joint sealant where indicated on the Drawings.
5. At all construction joints and at concrete joints designated on the Drawings to be "roughened", uniformly roughen the surface of the concrete to a full amplitude (distance between high and low points or side to side) of approximately 1/4-in to expose a fresh face. Thoroughly clean joint surfaces of loose or weakened materials by waterblasting or sandblasting and prepare for bonding. At least 2 hours before and again shortly before the new concrete is deposited, the joints and adjacent concrete surfaces to at least 12-in past the joint shall be saturated with water. After glistening water disappears, horizontal construction joints shall be given a thorough coating of neat cement slurry mixed to the consistency of very heavy paste. The surfaces shall receive a coating at least 1/8-in thick, well scrubbed-in by means of stiff bristle brushes whenever possible. [Horizontal wall joints with no access to the earlier concrete placement surface shall have the roughened surface thoroughly coated with a neat, cement slurry of pouring consistency.] New concrete shall be deposited before the neat cement dries.
6. In lieu of the above method for bonding plastic concrete to hardened concrete, the following optional method may be used. Concrete must be allowed to set a minimum of 28 days. Use an epoxy bonding agent applied to roughened and cleaned surfaces of set concrete in strict accordance with manufacturer's recommendations [and as specified in Section 03740 with respect to preparation of surfaces and applications of bonding agent].
7. Provide waterstops in all wall and slab construction joints in liquid containment structures and at other locations shown on the Drawings.
8. Keyways shall not be used in construction joints unless specifically shown on the Drawings or approved by the Engineer.

#### C. Control Joints

1. Provide sealant grooves, sealants and waterstops at control joints in slabs on grade or walls as detailed. Provide waterstops at all wall and slab control joints in water containment structures and at other locations shown on the Drawings.
2. Control joints at slabs on grade 6-in thick or less and without waterstops, may be sawed, if approved by the Engineer. If control joint grooves are sawed, properly time the saw cutting with the time of the concrete set.

Start cutting as soon as concrete has hardened sufficiently to prevent aggregates from being dislodged by the saw. Complete cutting before shrinkage stresses have developed sufficiently to induce cracking. No reinforcing shall be cut during sawcutting.

3. Extend every other bar of reinforcing steel through control joints or as indicated on the Drawings. Where specifically noted on the Drawings, coat the concrete surface with a bond breaker prior to placing new concrete against it. Avoid coating reinforcement or waterstops with bond breaker at these locations.

**END OF SECTION**

**SECTION 03300  
CONCRETE**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY:**

A. This Section sets forth the requirements for general concrete, grout and related work required to furnish and install cast-in-place reinforced and unreinforced concrete unless otherwise noted in the plans and specifications.

B. GENERAL:

1. Reinforced concrete shall be steel reinforced and includes:
  - a. Precast manholes, inlets and junction boxes.
  - b. Other minor load bearing reinforced concrete structures in no-aggressive conditions.
  - c. Sidewalk, curb & gutter, encasements, etc.
2. Steel Reinforcement: Includes bars, ties, welded wire and supports.

**1.2 QUALITY ASSURANCE**

A SOURCE QUALITY CONTROL:

1. Concrete Testing Service:
  - a. CONTRACTOR shall employ acceptable testing laboratory to perform materials evaluation, testing and design of concrete mixes.
  - b. CONTRACTOR's laboratory shall also evaluate concrete delivered to and placed at the site.
2. Certificates, signed by concrete producer and CONTRACTOR may be submitted in lieu of material testing when acceptable to CITY and or Engineer of Record.
3. Quality Control: Perform sampling and testing during concrete placement as follows:
  - a. Sampling: ASTM C 172.
  - b. Slump: ASTM C 143, one test for each load at point of discharge Air Content: ASTM C 31, one for each set of compressive strength specimens.
  - c. Compressive Strength: ASTM C 39, one set for each 50 cubic yards or fraction thereof of concrete; 1 specimen tested at 7 days, 1 specimens tested at 28 days.

4. Report test results in writing to CITY and or Engineer of Record on same day tests are made.
- B. REFERENCE STANDARDS: Comply with the applicable provisions and recommendations of the following, except as otherwise shown or specified:
1. ACI 301, Specifications for Structural Concrete for Building (includes ASTM Standards referred to herein except for ASTM A 36).
  2. ACI 304, Guide for Measuring, Mixing, Transporting, and Placing Concrete.
  3. ACI 305, Hot Weather concreting.
  4. ACI 306, Cold Weather Concreting.
  5. ACI 315, Manual of Engineering and Placing Drawing for Reinforced Concrete Structures.
  6. ACI 318, Building Code Requirements for Reinforced Concrete.
  7. ACI 347, Guide to Formwork for Concrete.
  8. ACI 350, Environmental Engineering Concrete Structures.
  9. ASTM A 36, Specification for Structural Steel.  
Concrete Reinforcing Steel Institute Manual of Standard Practice, include ASTM Standards referred to herein.

### 1.3 SUBMITTALS

- A. Samples: Submit samples of materials as specified and may be requested by CITY and or Engineer of Record, including names, sources and descriptions.
- B. Shop Drawings: Submit for approval the following:
1. Copies of manufacturer's specifications with application and installation instructions for proprietary materials and items, including admixtures and bonding agents.
  2. Drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315, Chapters 1 thru 7. Show bar schedules, stirrup spacing, diagrams of bent bars, arrangements and assemblies, as required for the fabrication and placement of concrete reinforcement.
  3. List of concrete materials and concrete mix designs proposed for use. Include the results of all tests performed to qualify the materials and to establish the mix designs in accordance with ACI 301, 3.9. Submit written report to CITY and or Engineer of Record for each proposed concrete mix at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed and are acceptable to CITY and or Engineer of Record. Mix designs may be adjusted

when material characteristics, job conditions, weather, test results or other circumstances warrant. Do not use revised concrete mixes until submitted to and accepted by CITY and or Engineer of Record.

- C. Laboratory Test Reports: Submit copies of laboratory test reports for concrete cylinders, materials and mix design tests. CITY and or Engineer of Record review will be for general information only. Production of concrete to comply with specified requirements is the responsibility of CONTRACTOR.

#### **1.4 PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Delivery concrete reinforcement materials to the site bundled, tagged and marked. Use metal tags indicating bar size, lengths, and other information corresponding to markings shown on placement diagrams.
- B. All materials used for concrete must be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer. Bins or platforms having hard clean surfaces shall be provided for storage. Suitable means shall be taken during hauling, piling and handling to insure that segregation of the coarse and fine aggregate particles does not occur and the grading is not affected.

### **PART 2 – PRODUCTS**

#### **2.1 CONCRETE MATERIALS**

- A. Portland Cement: ASTM C 150, Type II.
- B. Aggregates: ASTM C 33.
  - 1. Fine Aggregate: Clean, sharp, natural sand free from loam, clay, lumps or other deleterious substances. Dune sand, bank run sand and manufactured sand are not acceptable.
  - 2. Coarse Aggregate: Clean, uncoated, processed aggregate containing no clay, mud, loam, or foreign matter, as follows:
    - a. Crushed stone, processed from natural rock or stone.
    - b. Washed gravel, either natural or crushed. Use of slag and pit or bank run gravel is not permitted
- C. Coarse Aggregate Size: Size to be ASTM C 33, Nos. 57 or 67, unless permitted otherwise by CITY and or Engineer of Record.
- D. Water: Clean, drinkable.
- E. Air-Entraining Admixture: ASTM C 260.



- F. Water-Reducing High Range Admixture: ASTM C 494, Type F/G. Only use admixtures which have been tested and accepted in mix designs
- G. Slump Limits:
  - 1. Proportion and design mixes to result in concrete slump:
    - a. Not more than 4 inches prior to adding high range water-reducer.
    - b. Not more than 8 inches at point of placement after adding high range water-reducer.

## **2.2 FORM MATERIALS**

- A. Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.
- B. Exposed Concrete Surfaces: Acceptable panel-type to provide continuous, straight, smooth, as-cast surfaces. Use largest practical sizes to minimize form joints.
- C. Unexposed Concrete Surfaces: Suitable material to suit project conditions.

## **2.3 REINFORCING MATERIALS**

- A. Reinforcing Bars: ASTM A 615, Grade 60.
- B. Steel Wire: ASTM A 82.
- C. Supports for Reinforcement: Bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcement in place.
  - 1. Use wire bar type supports complying with CRSI recommendations, except as specified below. Do not use wood, brick, or other unacceptable materials.
  - 2. For slabs on grade, use supports with sand plates or horizontal runners where base materials will not support chair legs.
  - 3. For all concrete surfaces, where legs of supports are in contact with forms, provide supports (Either hot-dip galvanized, plastic protected or stainless steel legs) complying with CRSI, Manual of Standard
  - 4. Over waterproof membranes, use precast concrete chairs.

## **2.4 RELATED MATERIALS**

- A. Water
- B. stops:

1. Flat dumbbell or center bulb type, size to suit joints, uniform minimum thickness of 3/8-inch by 9 inches minimum width of Polyvinyl Chloride.
  - a. Manufacturer: Provide waterstops of one of the following:
    1. W.R. Meadows, Incorporated.
    2. A.C. Horn, Incorporated.
    3. Or equal.
  
- B. Membrane-Forming Curing Compound: ASTM C 309, Type I.
  
- C. Epoxy Bonding Agent:
  1. Two-component epoxy resin bonding agent.
    - a. Product and Manufacturer: Provide one of the following:
      1. Sikadur Hi-Mod, as manufactured by Sika Chemical Corporation.
      2. Epoxitite Binder (Code No. 2390), as manufactured by A.C. Horn, Incorporated.
      3. Or Equal.

## 2.5 GROUT

- A. Non-shrink, Nonmetallic Grout:
  1. Prepackaged nonstaining cementitious grout requiring only the addition of water at the job site.
  2. Product and Manufacturer: Provide one of the following:
    - a. Euco N-S, as manufactured by the Euclid Chemical Company.
    - b. Masterflo 713, as manufactured by Masters Buildings Company.
    - c. Or equal.
  
- B. Non-shrink, Nonmetallic 100% Solids, High Strength Epoxy Grout:
  1. Use prepackaged solvent-free, moisture-insensitive, 3-component epoxy grouting system.
  2. Product or Manufacturer: Provide one of the following:
    - a. Euco High Strength Grout, as manufactured by the Euclid Chemical Company, Cleveland, Ohio.
    - b. Sikadur 42, Grout-Pak, as manufactured by the Sika Chemical Company, Lyndhurst, NJ
    - c. Or equal.

- C. Ordinary Cement-Sand Grout:
  - 1. Except where otherwise specified use 1 part cement to 3 parts sand complying with the following:
    - a. Cement: ASTM C 150, Type II.
    - b. Sand: ASTM C 33.

### **PART 3 - EXECUTION**

#### **3.1 INSPECTION**

- A. CONTRACTOR and his installer shall examine the foundation for and the conditions under which work is to be performed and notify CITY of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to CITY and or Engineer of Record.

#### **3.2 FORMWORK**

- A. formwork: Construction so that concrete members and structures are correct size, shape alignment, elevation, and position, complying with ACI 347.
- B. Provide openings in form work to accommodate work of other trades. Accurately place and securely support items built into forms.
- C. Clean and adjust forms prior to concrete placement. Apply form release agents or wet forms, as required. Retighten forms during and after concrete placement if required to eliminate mortar leaks.

#### **3.3 REINFORCEMENT, JOINTS, AND EMBEDDED ITEMS**

- A. Comply with the applicable recommendations of specified codes and standards and CRSI. Manual of Standard Practice, for details and methods of reinforcement placement and supports
- B. Clean reinforcement to bright metal surface unless otherwise directed by City. Remove loose rust and mill scale, earth, and other materials which reduce or destroy bond with concrete.
- C. Position, support, and secure reinforcement against displacement during formwork construction or concrete placement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required.
  - 1. Place reinforcement to obtain the minimum concrete coverage as shown and as specified in ACI 18. Arrange, space, and securely tie bars and bar supports together with 16 gage wire

- to hold reinforcement accurately in position during concrete placement operations. Set with ties so that twisted ends are directed away from exposed concrete surfaces.
2. Reinforcing steel shall not be secured to forms with wire, nails or other ferrous metal. Metal supports subject to corrosion shall not touch formed or exposed concrete surfaces.
- D. Provide sufficient numbers of supports of strength required to carry reinforcement. Do not place reinforcing bars more than 2 inches beyond the last leg of any continuous bar support. Do not use supports as bases for runways for concrete conveying equipment and similar construction loads.
- E. Splices:
1. Provide standard reinforcement splices by lapping ends, placing bars in contact, and tying tightly with wire. Comply with requirements shown for minimum lap of spliced bars.
- F. Concrete shall not be placed until the reinforcing steel is inspected and permission for placing concrete is granted by CITY/ ENGINEER. All concrete placed in violation of this provision will be rejected.
- G. Joints: Provide construction, isolation, and control joints as indicated or required. Locate construction joints so as to not impair the strength and appearance of the structure. Place isolation and control joints in slabs on ground to stabilize differential settlement and random cracking.
1. In mats and slabs on grade locate joints at a spacing of approximately 40 feet. Place concrete in a strip pattern.
- H. Installation of Embedded Items: Set and build into the work anchorage devices and embedded items required for other work that is attached to, or supported by cast-in-place concrete. Use setting diagrams, templates and instructions provided under other Sections for locating and setting.

### **3.4 CONCRETE AND PLACEMENT**

- A. Proportioning and Design of Mix:
1. Minimum compressive strength at 28 days: 3000 psi.
  2. Maximum water cement ration by weight: 0.45.
  3. Minimum cement content: 564 pounds per cubic yard.
  4. Normal weight: 145 pounds per cubic foot.
  5. Use air-entraining admixture in all concrete: provide not less than 4 percent or more than 8 percent entrained air for concrete.

6. Calcium Chloride: Do not use calcium chloride in concrete, unless otherwise authorized in writing by CITY and or Engineer of record. Do not use water or admixtures containing calcium chloride.
- C. Job-Site Mixing: Use drum type batch machine mixer, mixing not less than 1 ½ minutes for one cubic yard or smaller capacity. Increase mixing time at least 15 seconds for each additional cubic yard or fraction thereof.
  - D. Ready-Mixed Concrete: ASTM C 94.
  - E. Concrete Placement: Comply with ACI 304, placing concrete in a continuous operation within planned joints or sections. Do not begin placement until work of other trades affecting concrete is completed.
  - F. Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into all parts of forms.
  - G. Protect concrete from physical damage or reduce strength due to weather extremes during mixing, placement and curing.
    1. In cold weather comply with ACI 306.
    2. In hot weather comply with ACI 305.

### **3.5 QUALITY OF CONCRETE WORK**

- A. Make all concrete solid, compact and smooth, and free of laitance, cracks and cold joints.
- B. All concrete for liquid retaining structures, and all concrete in contact with earth, water, or exposed directly to the elements shall be watertight.
- C. Cut out and properly replace to the extent ordered by CITY, or repair to the satisfaction of CITY, surfaces which contain cracks or voids, are unduly rough, or are in any way defective. Patches or plastering will not be acceptable.
- D. Repair, removal, and replacement of defective concrete as ordered by CITY shall be at no additional cost to CITY.

### **3.6 CURING**

- A. Curing: Begin initial curing as soon as free water has disappeared from exposed surfaces. Where possible, keep continuously moist for not less than 72 hours. Continue curing use of moisture-retaining

cover or membrane-forming curing compound. Cure formed surfaces by moist curing until forms are removed. Provide protection as required to prevent damage to exposed concrete surfaces.

### **3.7 FINISHES**

#### **A. Finish:**

1. After placing concrete slabs, do not work the surface further until ready for floating. Begin floating when the surface water has disappeared or when the concrete has stiffened sufficiently. Use a wood float only. Check and level the surface plane to a tolerance not exceeding  $\frac{1}{4}$  inch in 10 feet when tested with a 10 foot straightedge placed on the surface at not less than 2 different angles. Cut down high spots and fill all low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat the surface to a uniform, smooth granular texture.
2. Apply a non-slip broom finish of neat appearance to exterior concrete slabs. Use fiber-bristle broom unless otherwise directed. Coordinate the required final finish with CITY/ENGINEER before application.

### **3.8 GROUT PLACEMENT**

#### **A. General:**

1. Place grout as shown and in accordance with manufacturer's instructions. If manufacturer's instructions conflict with the Specifications do not proceed until CITY provides clarification.
2. Drypacking will not be permitted.
3. Proprietary product manufacturers shall make the services of qualified, full-time employees available upon 72 hours notification to assure that the product is properly used.
4. Placing grout shall conform to the temperature and weather limitations described in Article 3.4 above.

**END OF SECTION**

**SECTION 03400  
PRECAST CONCRETE MANHOLES**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements for materials and installation of pre-cast reinforced concrete manholes shown on the drawings

**1.2 REFERENCES**

- A. Florida Department Of Transportation Design Standards latest edition with deference to the CITY Utilities department Standard Details latest edition

**1.3 SUBMITTALS**

- A. Submit shop drawings for the following:
  - 1. Pre-cast manhole (including reinforcing and joint materials)
  - 2. Manhole to pipe connections
  - 3. Manhole lining systems
  - 4. Frame and cover

**1.4 DELIVERY AND HANDLING**

- A. Components of the manhole shall be free of fractures, cracks and undue roughness. Concrete shall be free of defects that indicate improper mixing or placing, and surface defects such as honeycomb or spalling. Cracks or broken ends due to improper handling will not be acceptable.
- B. Lift holes will be allowed to penetrate the entire wall thickness to facilitate handling of these structures. All lift holes shall be plugged with a non-shrink leak proof grout.

**1.5 PRE-CAST MANHOLE MATERIALS**

- A. Concrete: 4,000 psi, See Section 03300, Concrete for materials and reinforcing.
- B. Flexible Plastic Gasket: Conform to SS-S-00210, Type 1, Rope Form

- C. Epoxy Coating: Coal Tar epoxy (exterior an interior surfaces)
- D. Manhole concrete adjusting rings
- E. Frame and cover: Traffic type conforming to ASTM A48-74, 30,000 psi Tensile strength. U.S. Foundry 170 E or equal.
- F. The interior of the manhole shall be protected with two coats of tar epoxy. The first coat shall be thinned according to the manufacturer's instructions. The two coats shall total 16 mil dry film thickness. One coat of tar epoxy shall also be applied to the exterior surface to a thickness of no less than 8 dry mils.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

**3.1 MANHOLE CONSTRUCTION**

- A. Manholes shall be constructed of pre-cast reinforced concrete. Reinforcing for the base section and top shall be as shown on the drawings. Reinforcing for the wall sections shall be as specified in ASTM C478-75 (or later additions) and shall extend into the tongue and groove of the joints. There shall be a #4 continuous rebar hoop around openings. The base shall be monolithic with the first wall section and the first joint shall be as high as possible to reduce the likelihood that infiltration will enter the first joint.
- B. Joints shall be tongue and groove suitable for flexible plastic gasket material.
- C. A shallow type manhole shall be constructed at locations shown where the Difference in elevation from the invert of lowest line to grade does not exceed 5 feet.
- D. Manholes shall be set to the pipe grade firm and plumb in the locations shown on the drawings. Compaction of the base soil is an important step of construction to reduce the future settlement. The contractor should consider placing rock materials below the base should compaction efforts fail.
- E. Joints between sections shall be cleaned, primed and the gasket applied as recommended by the manufacturer. Excess material shall be smoothed flat with a roller. Voids remaining in the joint shall be caulked with a water- tight joint sealing material. The inspector may order the section removed if the joint material was placed poorly such that there is concern about the seal
- F. The joining pipe to manholes shall be by casting a rubber boot or by inserting



a rubber boot by core n seal method. Each boot shall protrude at least 4 inches beyond the wall to allow the installing of a stainless steel clamp to provide a water-tight connection.

**END OF SECTION**

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**DIVISION**

**15**

**MECHANICAL**

**SECTION 15049  
TRACER WIRE AND ALARMING TAPE**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

Furnish and install identification tape over the centerline of all buried potable water lines, wastewater force mains, gravity sewer and waste water effluent mains.

**1.2 SUBMITTALS**

Submit manufacture's descriptive literature, illustrations, specifications and other pertinent data.

**PART 2- PRODUCTS**

**2.1 TRACER WIRE**

- A. All pipe (HDPE, PVC and DI) 4-inches and greater installed by open cut shall have one (1) 12-gauge minimum copper tracer wire taped to the top of the pipe at intervals no greater than 4-feet. Copper wire shall have a minimum tensile strength/ break load of 452 lbs.
- B. All pipe (HDPE, PVC or DI) installed by directional bore shall have two (2) 12-gauge extra high strength (EHS) carbon steel inner core reinforcement directional drilling tracer wires taped to the top of the pipe at intervals no greater than 4-feet. The wire shall have a minimum tensile strength/break load of 1,150 lbs.
- C. The tracer wires shall have colored insulation matching the type of service provided in the main and be acceptable for direct burial.
- D. The wire shall be tied to all valves, tees and fittings.
- E. The tracer wires shall be brought up to the surface through a valve box or a 2-inch PVC pipe under direction of a City's Representative.
- F. The wires shall each be continuous throughout the project, with splices made only by methods approved by the City's Project Representative.

- G. All splices of the wires shall be made with watertight connections, utilizing direct bury splice kits as manufactured by 3M or approved equal. Bury splice kits shall be installed in accordance with manufacturer's recommendations.
- H. Tracer wire manufacturer shall be either Copperhead Industries or Proline Safety Products.

**2.2 ALARMING TAPE**

- A. Identification Tape for Ductile Iron and Steel Pipe: Identification tape shall be metallic and manufactured of polyethylene so as to be highly resistant to alkalis, acids and other destructive agents found in soil, and shall have a minimum thickness of 5 mils with a minimum tensile strength of 22 pounds per inch and maximum adhesive factor of 40 ounces per inch. Tape width shall be 3 inches and shall have background color specified below, imprinted with black letters. Imprint shall be as specified below and shall repeat itself a minimum of once every 2 feet for entire length of tape.
- B. Identification Tape for Polyvinyl Chloride Pipe: Identification tape shall be metallic and manufactured of polyethylene with minimum thickness of 4mils. The width shall be 3 inches and shall have background color specified below, imprinted with black letters. Imprint shall be as specified below and shall repeat itself a minimum of once every 2 feet for entire length of tape.
- C. Tape background colors and imprints shall be as follows:

<u>Imprint</u>	<u>Background Color</u>
“Caution Caution-Potable Water Line Buried Below”	Blue
“Caution Caution-Wastewater Force Main Buried Below”	Green
“Caution Caution-Reclaimed Water Main Buried Below”	Lavender
“Caution Caution-Raw Water Main Buried Below”	White

- D. Identification tape shall be “Underground Detectable Warning Tape” as manufactured by Presco, can be purchased at Ferguson Supply 840 Jimmy Ann Drive, Daytona Beach (386) 274-4516 or approved equivalent.

**PART 3-EXECUTION**

**3.1 INSTALLATION OF ALARMING TAPE**

- A. Alarming tape shall be installed for all buried pressure mains in accordance with the manufacturer's installation instructions and specified herein.

- B. For potable, raw, reuse water, and force mains, alarming tape shall be installed 18" below final grade.

### **3.2 INSTALLATION OF TRACER WIRE**

- A. Contractor shall perform a 12 volt DC electrical continuity test on all wires. No more than one volt of loss per 1000 feet of mainline pipe will be acceptable. A continuity test prior to final acceptance of the pipeline shall be required. Any cuts or breaks in the wire shall be repaired by the contractor at his expense.
  
- B. The tracer wire shall be tested by Contractor and with the City's Representative at the time of pressure testing. If the test fails, the Contractor is responsible for repairing the tracer wire

END OF SECTION

**SECTION 15050  
WATER PIPING – GENERAL**

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**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

The work covered by this section consists of providing all labor, equipment, material and supplies, and performing all operations required to install the various piping, valves, accessories, and fire hydrant assemblies for potable, reclaimed and raw water lines as specified and shown on the drawings. The work includes all testing and sampling in accordance with governing agencies.

**1.2 REFERENCES**

Specification Sections 02641 Pressure Pipe Cleaning and Pigging, 15056 Ductile Iron Pipe - Water, Section 01650 Disinfection, Section 01660 Piping & Equipment-General Field Testing and the CITY's Utility Department Standard Details, latest edition shall apply

**1.3 SUBMITTALS:**

- A. Shop drawings or catalog cuts shall be submitted for all miscellaneous structures, valves, boxes, and restrained joints.
- B. The manufacturer shall furnish a sworn affidavit that the pipe, fittings, and lining furnished under the Contract or Agreement comply with all applicable provisions of the ANSI and/or AWWA Standards.
- C. Reports on pressure and leakage tests shall be submitted in duplicate by the CONTRACTOR.

**1.4 JOB CONDITIONS:**

Interruptions to water service shall be minimized. The CONTRACTOR shall submit plans and schedules to the CITY for approval before any interruption in service takes place.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

## **PART 3– EXECUTION**

### **3.1 INSTALLATION:**

- A. Pipe and fittings shall be strung out along the route of construction with the spigots pointing in the direction of the flow. Pipe shall be placed where it will cause least interference with traffic. Before the pipe is lowered into the trench, it shall be swabbed or brushed out to insure that no dirt or foreign material gets into the finished line. Trench waters shall be kept out of the pipe and the pipe kept closed by means of a test plug whenever work is not in progress. The CONTRACTOR shall provide the means for dewatering the trench and the cost thereof shall be included in the price for installing the pipe.
- B. Installation of the pipe shall be commenced immediately after the excavation is started. Every means must be used to keep pipe laying closely behind the trenching. The CITY may stop trenching if in its opinion, the trench is open too far in advance of the pipe laying operation. Damaged or unsound pipe or fittings will be removed and replaced by the CONTRACTOR at no additional cost to the CITY. Water lines shall be restrained to prevent movement of lines under pressure. Restraints shall be furnished by the CONTRACTOR. For ductile iron pipe, restrained joints shall be installed at all bends, tees, crosses, wyes, plugs, and reducers as shown in standard details of the drawings.
- C. Where there is no adequate natural foundation upon which to construct a pipe bed, the pipe shall be constructed on a prepared stabilized sub-grade or rock bedding of Class I materials as defined in ASTM D2321. Unsuitable sub-grade materials shall be replaced or stabilized as described in Section 02202.
- D. Where water mains are stubbed out with a reducer and valve, the stub-outs shall have restrained joints as indicated in the restraining schedule on the standard detail sheet.
- E. All joints and service connections shall be watertight and any leaks or defects discovered shall be immediately repaired to the satisfaction of the CITY. Any pipe which has been disturbed after being laid shall be taken up, the joints cleaned and the pipes properly re-laid. Installation of fittings and pipe joints shall be in strict accordance with the manufacturer's recommendations.

### **3.2 LOCATOR TAPE**

A three inch wide metalized locator tape shall be used for all water mains installed. The locator tape shall be non-corrodible consisting of polyethylene film with a metallic film and shall be continuously marked to identify the referenced pipeline. The tape shall be installed eighteen inches directly above the pipe. In addition a #12 gage insulated UF single strand copper locator's wire shall

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be wound continuously around all non-metallic pipe from valve box to valve box terminated in accordance with the CITY's standard detail.

### **3.3 WATER AND SEWER MAIN CROSSING:**

Where water and sewer mains cross, the water main shall be installed with at least 18 inches vertical clearance or encase sewer main in concrete 10 feet each side of the water main. The cost of extra depth excavation or encasement is to be included in the cost of furnishing and installing the pipe.

### **3.4 HIGHWAY CROSSINGS:**

All pipe under State and County highways shall be installed in accordance with the requirements of the permits issued by the respective agency.

### **3.5 CUT-IN CONNECTION TO EXISTING MAINS:**

Where cut-in connections are required between new work and existing water mains, the cut-in connections shall be made by the CONTRACTOR. Proper specials and fittings to suit the actual conditions shall be furnished by the CONTRACTOR. The CONTRACTOR shall schedule his work so that digging and locating the existing line can be completed prior to starting trench work on the line. The CONTRACTOR shall verify the dimensions of all pipes before ordering special fittings and couplings.

### **3.6 OTHER UTILITIES:**

The CONTRACTOR shall contact all utilities, private and public, a minimum of one (1) week prior to beginning construction so these utilities can be properly located.

### **3.7 PIPE CLEANING:**

- A. Cleaning of lines less than 6 inches inside diameter shall be accomplished by thorough flushing of the line using a CITY approved water source. Cleaning of lines 6 inches inside diameter or greater shall be accomplished using a flexible polyurethane foam pipeline cleaner, commonly known as a "pig", manufactured for cleaning pressure lines. The pig shall be new and have a turning pattern, for use in water systems. It shall have a resilient peripheral surface that engages with the inner cylindrical wall of the pipe to maintain a sliding seal. The pig may have one or more sealing surfaces. This seal is maintained for propelling and must be abrasive resistant.
- B. When necessary, the pig shall also have abilities to scratch, scrape, plow and jet to assist in cleaning and flushing the pipe of debris. The pig shall rotate for longer wear and be able to reduce itself to a minimum of 65% of its original



cross-sectional area. It must then be able to return to its original form while maintaining its seal and ability to clean.

- C. The pig shall have the ability to negotiate- fabricated mitered bends, short radius bends, short radius elbows, tees, crosses, and multi-dimensional pipe sizes and valves.
- D. Follow manufacturer's recommendations for use of "pig" in cleaning the line and conduct cleaning with CITY's representative in attendance. After passing through the pipeline the CITYs shall determine if subsequent pigging must be performed.

### **3.8 WATER MAIN TESTS:**

The CONTRACTOR shall furnish and install suitable temporary testing plugs, filling assemblies or caps for the pipe line, all necessary pressure pumps, hose, pipe connections, meters, gauges, and other similar equipment, and all labor required, all without additional compensation for conducting pressure and leakage tests, flushing and disinfections of the new water lines. All tests shall be coordinated in accordance with Section 01660 and shall be conducted with representatives of the CITY's Utilities Department in attendance. The CONTRACTOR is to coordinate the testing thru the CITY's Construction Representative. The CONTRACTOR shall de-chlorinate all water used for flushing and disinfection before discharge to the surrounding environment. The cost for de-chlorination shall be part of the testing work and included in the cost of the pipe installation.

### **3.9 PRESSURE TESTS:**

Tests shall be made on the completed pipe installation. The test pressure shall be 150 psi maintained for a period of not less than four (4) hours Pressure shall not vary more than five pounds (5 lbs.). Allowable leakage shall be computed on the basis of AWWA Standard C600 latest edition.

**END OF SECTION**

**SECTION 15051  
SANITARY PIPING GENERAL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY:**

- A. This Section sets forth the requirements for materials and performing all operations required to install the various piping systems for gravity sewers and force mains, as specified and shown on the drawings.

**1.2 SUBMITTALS:**

- A. Shop drawings shall be submitted for all pipe, valves, boxes, harnessing, manholes, frames and cover. The manufacturer shall furnish a certification that the pipe fittings and lining furnished under the Contract comply with all applicable provisions of the ANSI standards. Foundry reports may be required to confirm the quality of the products delivered.
- B. Product data include standard printed information on materials, products and systems, not custom-prepared for this project, other than the designation of selections from available choices.
- C. Samples include both fabricated and not fabricated physical examples of materials, products and work: both as complete units and as smaller portions of units of work, either for limited visual inspection or (where indicated) for more detailed testing and analysis.
- D. Miscellaneous submittals related directly to the work (non-administrative) include warranties, guarantees, maintenance agreements, workmanship bonds, project photographs/videos, survey data and reports, physical work records, statements of applicability, quality testing and certifying reports, copies of industry standards, record drawings, operating and maintenance materials, overrun stock, security/protection/safety keys and similar information, devices and materials applicable to the work and not defined as shop drawings, product data or samples.

**1.3. JOB CONDITIONS:**

- A. All bidders shall evaluate the job site conditions before submitting a bid.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

## **PART 3 - EXECUTION**

### **3.1 INSPECTION OF MATERIALS**

- A. All materials shall be subject to inspection prior to delivery to the CITY. The CITY reserves the right to reject all materials not inspected prior to shipping and the CONTRACTOR shall immediately remove at no additional cost any materials that in the opinion of the CITY's Inspector do not meet typical standards. (For example if the pipe arriving is cracked, discolored, or appear used the CITY Inspector will refuse to allow the pipe to be unloaded at the job site unless there is proof that the pipe being delivered will not be used in the final project.) Special markings shall be plainly marked on the applicable pipe indicating the weight, proper location of the pipe or fittings in the line by reference to layout drawings and schedules, class of pipe, casting period, manufacturer's mark and year pipe was produced. No valve or other component that is otherwise new that is older than two years will be allowed to be part of the project.

### **3.2 CONSTRUCTION**

- A. Excavation, trenching, and backfilling for the installation of underground piping systems shall be as specified in Section 02202. Laying of the pipe shall be commenced immediately after the excavation is started, an every means must be used to keep pipe laying closely behind the trenching. The CITY's project representative may order the trenching stopped when in this opinion the trench is open too far in advance of the pipe laying operation.
- B. The bottom of the sewer trench shall be shaped to give substantially uniform circumferential support to the lower one-third of each pipe. Where bell and spigot type pipe is used, holes shall be scooped out where the bells occur leaving the entire barrel of the pipe bearing on the pipe bed. Each pipe shall be inspected for defects prior to foreign material gets into the finished line. Water shall be kept out of the pipe and the pipe kept closed by means of a test plug whenever work is not in progress. Pipe shall be handled carefully to avoid breakage. Pipe may be laid in the best manner adapted to securing speed and good results. However, it shall be laid in accord with the manufacturer's instructions and recommendations. Pipe shall be laid with spigot ends pointing in the direction of flow. Installation of pipe and fittings, with factory made joints shall be accomplished in strict accord with the pipe manufacturer's recommendations and approval of the CITY. Pipe alignment shall conform to the standards for laying pipe as determined by the CITY's Inspector.
- C. All joints shall be watertight. Any leaks or defects discovered shall be immediately repaired. All cracked, broken and damaged piping shall be

removed and replaced. Any pipe which has been disturbed after being laid shall be taken up, the joints cleaned and the pipe properly replaced. Any superfluous material inside the pipe shall be flushed or removed by means of an approved follower, scraper or pigging device.

### **3.3 INSTALLATION CONDITIONS:**

- A. Where it is necessary to cut the force main to place special castings, care must be taken not to crack the pipe and to cut straight and true around it. Force mains shall be restrained by restraining devices (thrust blocking is not permitted) to prevent movement of lines under pressure.
- B. Force main connections shall be constructed as shown on the detailed drawings or as is common practice should no detail be provided.
- C. Where there is no adequate natural foundation upon which to construct a pipe bed, the pipe shall be installed on a prepared stabilized sub-grade or rock bedding. Unsuitable sub-grade materials shall be removed and stabilizing materials shall be used. Gravel or graded lime rock may be used for pipe bedding where suitable material is not available. All stabilizing materials and work related to removing the unsuitable materials shall be provided at no additional cost to the CITY.
- D. Where a gravity sewer or force main crosses an existing or proposed water main the State of Florida Department of Environmental Protection requires 18-inch separation and for this reason the CONTRACTOR shall investigate well in advance of pipe or sewer construction to lower or raise the proposed piping to secure the 18-inch separation.
- E. Horizontal separation of force mains/gravity sewers from water mains is controlled by State of Florida Department of Environmental Protection but as a general rule the minimum desired separation is 10 feet but with approval of the CITY/ ENGINEER of Record may be reduced to the State standard.
- F. All pipe under State or County highways shall be installed in accordance with Requirements of these agencies at CITY direction whether or not they are made a part of this Specification.

### **3.4 BY PASS PUMPING**

- A. **UNLESS THESE SPECIFICATIONS DEFINE SPECIAL ASSISTANCE BY THE CITY REGARDING REQUIRED BY PASS SEWAGE PUMPING, THE CONTRACTOR IS HEREBY ADVISED THAT ALL NECESSARY BY PASS PUMPING INCLUDING LABOR, MATERIALS AND ASSOCIATED COSTS IS THE FULL**

**REPONSIBILITY OF THE CONTRACTOR. THE ADVANCED APPROVAL BY CITY FOR ALL BYPASS PUMPING OPERATIONS IS REQUIRED.** The approval of the by-passing system in advance by the CITY shall in no way relieve the CONTRACTOR of his full and complete responsibility. The pump and bypass lines shall be of adequate capacity to handle all flows.

**END OF SECTION**

**SECTION 15056  
DUCTILE IRON PIPE- WATER**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets for the material and general requirements for ductile iron pipe in water systems.

**1.2 SUBMITTALS**

- A. The CONTRACTOR shall submit to the CITY each month a record of all ductile iron pipe installed including the manufacturer name and class rating. All ductile iron pipe used must be new and a purchase record may be required unless pipe is provided by CITY.
- B. A certified copy of the tests made by the manufacturer will be required.

**1.3. JOB CONDITIONS**

No Special Conditions Noted

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

**3.1 GENERAL**

- A. Ductile iron pipe for water mains installed underground shall be manufactured in accord with ANSI/AWWA C151/1 21.51, the latest version thereof.
- B. Pipe shall be designed for thickness in accordance with ANSI/AWWA C 151/ A21.51, the latest version thereof subject to the following design criteria for both fittings and pipe: Pressure Class 350 for diameters less than 30” and Pressure Class 250 for 30” and greater diameters.
- C. The depth of cover for water mains shall be a minimum of 3 feet with no exceptions.

- D. Generally, joints for ductile iron pipe shall be push-on type designed in accordance with ANSI/AWWA C111/A 21.11, the latest version thereof.
- E. The manufacturer shall furnish adequate joint lubrication to ensure proper installation.
- F. At certain locations restrained joints such as Megalug™, Field Lok™, or Fast Grip™ or approved equal shall be used. Field Lok™ or Fast Grip™ restrained joint gaskets shall only be allowed within the limits of the restraint as indicated on the plans or as required for the length indicated in the restrained joint schedule on the detailed sheet. The length of restrained joint shall be adequate for the testing pressure and the conditions for the work area, even if this means extending the restrained joints beyond the chart value.
- G. Field Lok™ or Fast Grip™ restrained joint gaskets will not be allowed at the fitting itself, only Megalug™ or approved equal shall be used. Field Lok™ or Fast Grip™ restrained joint gaskets shall be UL FM approved, with a minimum pressure rating that matches or exceeds the pipe Pressure Class.
- H. At certain locations shown on the drawings, the joints shown on the drawings, the joints for the pipe connections shall be flanged. Flanged pipe shall conform to the requirements of ANSI/AWWA C115/A21.15, the latest version thereof.
- I. Gasket lubricant for push-on joints shall be labeled with the trade name and the pipe manufacturer's name. Fittings for ductile iron pipe shall be manufactured of ductile iron and shall conform to the requirements of ANSI/AWWA C153/A21.53, the latest version. Fittings shall be compatible with the pipe and designed the same Pressure Class rating as the pipe. The lining and coating of the fittings shall be as specified for the pipe. Joints for fittings 16" in nominal diameter and under shall be push-on type or mechanical joint, except above ground fittings as shown on the drawings, shall be flanged. All below ground mechanical joint connections shall be restrained type such as Megalug™ or approved equal. The interior of ductile iron pipe and fittings shall have cement lining and bituminous seal coat in accordance with ANSI/AWWA C104/A21.4, the latest version thereof.

**END OF SECTION**

**SECTION 15058  
DUCTILE IRON PIPE- SANITARY**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the material and ancillary item requirements for pipe, fitting & gasket work necessary to construct sanitary force mains.

**1.2 REFERENCES**

- A. The CITY Utilities Department Standard Details, latest edition and Sections 02616, 02641 and 15051.

**1.3 SUBMITTALS**

- A. The CONTRACTOR shall submit a record of all ductile iron pipe installed, including the manufacturer name and class rating, each month. A purchase record may be required.
- B. A maintenance of traffic plan is required a minimum of three weeks in advance of each requested road closure for City review and acceptance.
- C. A certified copy of the manufacturer's material quality and composition tests will be required.

**1.4 SITE CONDITIONS**

- A. Contractor shall visit and review the site prior to submitting the bid and incorporate the anticipated work condition needs in the bid.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. Ductile iron pipe for sewer mains installed underground shall be manufactured in accord with ANSI/AWWA C151/1 21.51, the latest version thereof. All ductile iron pipe used must be new.
- B. Pipe shall be designed for thickness in accordance with ANSI/AWWA C 151/ A21.51, the latest version thereof subject to the following design criteria for both fittings and pipe: Pressure Class 350 for pipes less than



30" in diameter and Pressure Class 250 for pipes 30" or greater in diameter.

- C. Generally, joints for ductile iron pipe shall be push-on type designed in accordance with ANSI/AWWA C111/A 21.11, the latest version thereof.
- D. The manufacturer shall furnish adequate joint lubrication to ensure proper installation
- E. At certain locations restrained joints such as Megalug™, Field Lok™, or Fast Grip™ or CITY acceptable equal shall be used. Field Lok™ or Fast Grip™ restrained joint gaskets shall only be allowed within the limits of the restraint as indicated on the plans or as required for the length indicated in the restrained joint schedule on the detailed sheet. The length of restrained joint shall be adequate for the testing pressure and the conditions for the work area, even if this means extending the restrained joints beyond the chart value.
- F. Field Lok™ or Fast Grip™ restrained joint gaskets will not be allowed at the fitting itself, only Megalug™ or approved equal shall be used. Field Lok™ or Fast Grip™ restrained joint gaskets shall be UL FM approved, with a minimum working pressure that meets or exceeds the pipe Pressure Class.
- G. At certain locations shown on the drawings, the joints shown on the drawings, the joints for the pipe connections shall be flanged. Flanged pipe shall conform to the requirements of ANSI/AWWA C115/A21.15, the latest version thereof.
- H. Gasket lubricant for push-on joints shall be labeled with the trade name and the pipe manufacturer's name. Fittings for ductile iron pipe shall be manufactured of ductile iron compact fittings and shall conform to the requirements of ANSI/AWWA C153/A21.53, the latest version thereof. Fittings shall be compatible with the pipe and designed to meet or exceed the pipe Pressure Class. The lining and coating of the fittings shall be as specified for the pipe. Joints for fittings 16" in nominal diameter and under shall be push-on type or mechanical joint, except above ground fittings as shown on the drawings, shall be flanged. All below ground mechanical joint connections shall be restrained type such as megalug™ or approved equal.
- I. The interior of ductile iron pipe and fittings shall have seal coat in accordance with ANSI/AWWA C104/A21.4, the latest version thereof. For ductile iron pipe used for Sanitary sewer mains a Fusion-Bonded Epoxy lining or approved equal shall be provided. (Fusion-Bonded Epoxy

lining may be provided for fittings were noted) (Amine Cured Novalax Epoxy, i.e. Protecto 401™)

- J. Air Release Valves shall meet or exceed A.R.I models “D-020, D025, D-023, and S-20” Combination air Valve for sewage “SAAR” as approved by the City.

## **2.2 MANUFACTURERS**

- A. Products shall be provided from manufacturers that utilize manufacturing processes that consistently produce pipe, fittings and appurtenances in compliance with national ANSI/AWWA quality standards and specifications.

## **PART 3– EXECUTION**

### **3.1 QUALIFICATIONS OF INSTALLER**

- A. Contractor and their subcontractors shall be experienced in all aspects of their assigned work and provide sufficient experienced personnel and appropriate equipment to perform quality work in a timely manner

### **3.2 INSTALLATION**

- A. The depth of cover for sewer mains shall be a minimum of 4 feet or as directed in the construction plans.
- B. Resilient seat gate valves shall be installed on sanitary force mains unless otherwise noted in the contract Bid Documents. Tapping gate valves will be used at line taps.
- C. The CONTRACTOR shall install metallic locator tape 18 inches above the top of the installed pipe for the full length of the sewage force main. Tape shall be color coded green for all sanitary lines.
- D. Coordinate the co-location of CITY Information Technology PVC conduit with the sanitary main locations on the construction plans to minimize excavation and site disturbance.

**END OF SECTION**

**SECTION 15066  
POLYVINYL CHLORIDE (PVC) PIPE AND CONDUIT**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets forth the general requirements for PVC and FPVC pipe and pipe conduit work.

**1.2 REFERENCES**

The CITY's Utility Department Standard Details, latest edition and C 900-97 and C 905 standards shall apply.

**PART 2 – PRODUCTS**

**2.1 PVC PIPE**

- A. PVC gravity sanitary pipe shall be green SDR 26 ASTM, D-3034 where a minimum of 4 feet of cover is provided and the burial depth is less than 10 feet. For burial depths of 10 feet or greater C900/C905 DR-25 minimum Pressure Class 100 shall be used.
- B. PVC pressure potable water pipe shall be blue C900/C905 DR-18 pressure class 150. Reclaimed water pipe shall be purple C900/C905 DR-18 pressure class 150. All joints shall meet or exceed the Pressure Class of the pipe.
- C. At the City's discretion pressure class upgrades for pipe used in potable and reuse water distribution systems with multiple turns will be required at no additional cost to the City to meet the C900-97 burst protection standards if using pipe rated under the C900-07 standards.
- D. The joints for gravity sewer pipe and fittings shall be a rubber gasketed compression type designed to prevent infiltration. Joint lubrication shall be as furnished by the manufacturer
- E. Fittings and pipe shall be best quality meeting AWWA and ASTM recommended material, performance and manufacturing specifications. Wall thickness must meet established standard. Plugs for use at the end of service pipe shall be PVC. Fittings shall meet or exceed the Pressure Class of the pipe.

- F. Fusible PVC (FPVC) manufactured by Underground Solutions. Inc. using all virgin resin used in water main or sanitary force main Horizontal Directional Drilling (HDD) applications shall have a minimum working pressure of 160 PSI unless otherwise specified.
- G. PVC pipe used for conduit as the protective conveyance for fiber-optic lines, water services under pavement and wiring shall be Schedule 40 with a minimum of 36 inches of stable cover. Schedule 80 shall be used for HDD applications. The CONTRACTOR shall use the jointing system and pipe material recommended and warranted by the manufacturer for HDD applications unless otherwise directed.
- H. An easily accessible mule or pull tape with a minimum pull strength of 1250 pounds shall be installed in all empty conduits for post-construction use unless otherwise directed.
- I. Installed conduits shall have a smooth internal wall surface and be clean and free of sand and other debris that will interfere with their intended use.
- J. A #12 gage UF rated insulated single strand copper tracer wire shall be installed with and attached to buried non-metallic pipe and conduit in accordance with the Utility Department Standard Details. A 3" wide metallic tracer tape shall also be installed eighteen inches above and directly over all buried non-metallic pressure mains.

END OF SECTION

**SECTION 15067  
RECLAIMED WATER PIPE**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets forth the requirements for materials and operations required to install the various piping for reclaimed water systems as specified and shown on the drawings. The work includes all testing and sampling in accordance with governing agencies.

**1.2 REFERENCES**

The requirements of the City's Utilities Department Standard Details, latest edition, Specification Section 02641 Pressure Pipe Cleaning and Pigging and Specifications Section 15110 Valves and Accessories – Reclaimed Water shall apply.

**1.3 SUBMITTALS**

- A. Submit shop drawing for all materials including pipe, valves and restraining devices. Shop drawings include custom-prepared data of all forms including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns reports, calculations, instructions, measurements and similar information not in standard printed form applicable to other projects.
- B. Product data include standard printed information on materials, products and systems, not custom-prepared for this project, other than the designation of selections from available choices.
- C. Samples include both fabricated and not fabricated physical examples of materials, products and work: both as complete units and as smaller portions of units of work, either for limited visual inspection or (where indicated) for more detailed testing and analysis.
- D. Miscellaneous submittals related directly to the work (non-administrative) include warranties, guarantees, maintenance agreements, workmanship bonds, project photographs/videos, survey data and reports, physical work records, statements of applicability, quality testing and certifying reports, copies of industry standards,

record drawings, operating and maintenance materials, overrun stock, security/protection/safety keys and similar information, devices and materials applicable to the work and not defined as shop drawings, product data or samples

## **PART 2 – PRODUCTS**

### **2.1 RECLAIMED WATER PIPE**

- A. Polyvinyl Chloride (PVC) pipe shall conform to the requirements of AWWA C900 or C905 pressure Class 150 (DR-18) pipe with ductile iron pipe equivalent outside diameter so connection to ductile iron pipe can occur without special adapters. Ductile Iron Pipe (DIP) less than 30' in diameter shall be Pressure Class 350 and 30" or greater shall be Pressure Class 250 standard cement-lined with manufacturer applied purple outside finish coating. All pipe shall use a restrained joint method such as megalugs, boltless restraints or gripper gaskets in compliance with Ductile Iron Pipe Research Association (DIPRA) guidelines. Couplings and gaskets shall be furnished with the pipe. Gaskets shall conform to ASTM 03239. Nontoxic gasket lubricant as specified by the pipe manufacturer shall be provided. Joints on all pipe materials shall meet or exceed the Pressure Class of the pipe.
- B. A purple coloring agent shall be added to the PVC piping during the manufacturing process. The color of the pipe shall be protected during the project work.

### **2.2 LOCATOR TAPE AND WIRE**

A three inch Metalized locator tape and # 12 gage insulated UF copper locator wire shall be used for all pipe installed. The locator tape shall be non-corrodible consisting of polyethylene film with a metallic film to allow detection by electronic means and shall be continuously marked to identify the use of the pipeline. The tape shall be installed eighteen inches directly above the top of the pipe. The locate wire shall be wound around the pipe terminating at each valve box in accordance with the CITY's standard detail.

### **2.3 FITTINGS**

Fittings shall be ductile-iron conforming to the requirements of ANSI/AWWA C153/A21.53. Fittings shall meet or exceed the Pressure Class of the pipe.

## **PART 3– EXECUTION**

### **3.1 INSTALLATION:**

Pipe and fittings shall be strung out along the route of construction with the spigots pointing in the direction of the flow. Pipe shall be placed where it will cause least interference with traffic. Before the pipe is lowered into the trench, it shall be swabbed or brushed out to insure that no dirt or foreign material gets into the finished line. Trench waters shall be kept out of the pipe and the pipe kept closed by means of a test plug whenever work is not in progress. The CONTRACTOR shall provide the means for dewatering the trench and the cost thereof shall be included in the price for installing the pipe.

### **3.2 ROADWAY CROSSINGS:**

All work within County and State rights of way shall be performed in accordance with the permitted requirements of the owning agency as directed by CITY.

### **3.3 CUT-IN CONNECTION TO EXISTING MAINS:**

Where cut-in connections are required between new work and existing mains, the cut-in connections shall be made by the CONTRACTOR. Proper specials and fittings to suit the actual conditions shall be furnished by the CONTRACTOR. The CONTRACTOR shall schedule his work so that digging and locating the existing line can be completed prior to starting trench work on the line. Cut-ins into lines shall be done by the CONTRACTOR. The CONTRACTOR shall verify the dimensions of all pipes before ordering special fittings and couplings.

### **3.4 OTHER UTILITIES:**

The CONTRACTOR shall contact all utilities, private and public, a minimum of forty-eight (48) hours prior to beginning construction so these utilities can be properly located on site.

### **3.5 RECLAIMED WATER MAIN TESTS:**

The CONTRACTOR shall furnish and install suitable temporary testing plugs or caps for the pipe line, all necessary pressure pumps, hose, pipe connections, meters, gauges, and other similar equipment, and all labor required, all without additional compensation for conducting pressure and

leakage tests All tests to be conducted with the CITY in attendance. The CONTRACTOR is to coordinate the testing through the CITY.

### **3.7 PRESSURE TESTS:**

Tests shall be made on the completed pipe installation. The test pressure shall be 150 psi maintained for a period of not less than 4 (4) hours Pressure shall not vary more than five pounds (5 lbs.). Allowable leakage shall be computed on the basis of AWWA Standard C600 latest edition.

### **3.8 RESTRAINED JOINTS**

Restrained joints for use with PVC pipe shall consist of retainer glands fabricated of ductile-iron conforming to ASTM A536. The gland shall be such that it can replace the standardized mechanical joint gland and can be used with the standardized mechanical joint bell conforming to ANSI/AWWA A21.11/C111 and ANSI/AWWA A21-53/C153. The retainer glands shall have a pressure rating equal to or greater than that of the PVC pipe on which it is used.

**END OF SECTION**



**SECTION 15100**  
**VALVES AND ACCESSORIES – POTABLE WATER**

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**PART I – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements for materials and operations necessary to provide and install valves, taps, and various accessories. This Section will apply for the additional materials the CONTRACTOR is required to provide and install above and beyond materials provided by the CITY.

**1.2 REFERENCES**

- A. The CITY's Utilities Department Standard Details, latest edition and Section 02616.

**PART 2 – PRODUCTS**

**2.1 GATE VALVES**

- A. Gate valves 20" and less in diameter shall be ductile iron body resilient seated gate valve, fusion bonded on the interior and exterior of the valve in accordance with AWWA C509-87, 0-ring type with non-rising stem, and opening counterclockwise. Valves shall be manufactured in accordance with AWWA C-509-87 for NRS valves and designed for 250 psi working pressure. Valves for buried services shall have mechanical joint ends and operation nut in accord with AWWA C509. One socket valve wrench shall be provided with extension as required. Valves for above ground shall be American Standard flanged, with wheel operator. The provided valves shall be manufactured in the United States and be acceptable to the CITY.
- B. Gate valves 20" in diameter and larger shall be cast iron bodies, bronze mounted, double discs, 0-ring type with non-rising stem and opening counterclockwise. Valves shall be manufactured in accordance with AWWA C500-71 for NRS valves and designed for 150 psi working pressure. Valves for buried service shall have mechanical joints ends and operating nut in accord with AWWA C500. One socket valve wrench shall be provided with extension as required. Valves for above ground shall be American Standard flanged, with wheel operator.

## **2.2 VALVE BOXES**

- A.** Valve boxes shall be provided for all buried valves. Valve boxes shall consist of cast iron base and adjustable top section with cover that shall be marked "Water". Extensions shall be provided as required to meet grade.

## **2.3 AIR RELEASE AND/OR COMBINATION VALVE ASSEMBLY**

- A.** An air release valve assembly shall be furnished and installed on the water main as shown on the drawings. Air release valve assembly shall consist of a combination short body, air release vacuum breaker valve, installed in a manhole or vault with vented manhole cover, gate valve, fittings, tapping saddle and connecting piping to the main. The combination assembly will include air intake valving.
- B.** Air release or combination valves shall be 1" for 16" diameter pipe and smaller and 2" for 18" diameter and above pipe and shall be the automatic type installed in a concrete box or vault as shown on the drawing. Box and lid shall be sized to totally enclose the valve. Pipe, fittings, and valves for the assembly shall be as specified. A corporation stop shall be tapped into the main using the procedures as recommended by the pipe Manufacturer. The corporation stop shall be manufactured by Mueller, Hays, or CITY accepted equal. The valve shall be manufactured by Multiplex Manufacturing Company, A.R.I, Valve and Primer Corporation, or CITY accepted equal.

## **2.4 HOSE BIBB WITH VACUUM BREAKER:**

- A.** Hose bibbs shall be Woodford Model Y24, Mueller, Crane, or CITY accepted equal, with inside I.P. thread and wheel handle. A vacuum breaker shall be installed on all hose bibbs. Hose bibb vacuum breaker shall be Woodford Model Nidel NH, Watts No. NFI, A. W. Cash type VB or CITY accepted equal.

## **2.5 SETTING VALVES AND BOXES:**

- A.** Valves and valve boxes as specified in the preceding paragraphs shall be installed where shown on the drawings unless: otherwise directed. Valves shall be set plumb with the base of the valve box centered over the valve and resting on compacted backfill. The top section of the box shall be set to allow equal movement above and below finished grade. After being correctly positioned, fill shall be carefully tamped around the valve box for a distance of 4' on all sides of the box. In paved areas, top of the cover shall be flush with the finished paving. In off-street areas, the cover shall be set 1" above existing grade unless otherwise directed by the CITY

and a concrete pad shall be poured around the top of the box as shown in the standard details.

## **2.6 TAPPING SLEEVE AND TAPPING VALVE:**

- A.** The tapping sleeve and valve shall be designed for making a wet tap on an existing water main. The tapping sleeve and valve shall be made of high quality ductile iron conforming to the material specifications of ANSI/AWWA C110/A21.10. The tapping sleeve shall be equipped with a molded rubber gasket to completely encircle the tapped opening thereby insuring a complete watertight connection. It shall be designed to withstand a working pressure of at least 200 psi. The outlet change of the tapping sleeve and valve shall be Class 125 (A.S.A.B16.1-1960). The tapping sleeve and valve shall be hot dipped Galvanized after fabrication. All internal threads shall be tapped or re-tapped after galvanizing. The tapping sleeve and valve shall include all necessary bolts, nuts and gaskets. The tapping sleeve shall be a mechanical joint type with a flanged outlet such as manufactured by MUELLER, American-Darling, or CITY accepted equal. The tapping valve shall be a resilient seat gate valve such manufactured by MUELLER, American-Darling, U.S. Pipe Metro Seal or CITY accepted equal.

**END OF SECTION**

**SECTION 15101  
VALVES AND ACCESSORIES - SANITARY**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets for the requirements for valves and accessories to be installed as part of the project sanitary system work.

**1.2 REFERENCES**

- A. The CITY's Utilities Department Standard Details, latest addition and Section 02616

**PART 2 – PRODUCTS**

**2.1 AIR RELEASE AND/OR COMBINATION VALVE ASSEMBLY**

- A. An air release valve assembly shall be furnished and installed on the force main as shown on the drawings. Air release valve assembly shall consist of a combination short body, air release vacuum breaker valves, installed in a manhole with vented manhole cover, gate valve, fittings, tapping saddle and connecting piping to the main. Combination valves shall include air intake valving.
- B. The valve shall automatically function to release to atmosphere both large and small amounts of air that accumulate in the pipeline. Once the air has been exhausted, both valves shall seal tightly to prevent water leakage. The valve shall also function to admit air into a line, tank, or chamber under emergency conditions or when it is being drained. The valve body and cover shall be of semi-steel, stainless steel or reinforced nylon with resilient seats, rubber covered floats and no levers. Valves shall be corrosion resistant and suitable for sewage force main application. Valve shall be as manufactured by A.R.I model D-025, Val-Matic, model 48/301, Golden-Anderson or approved equal. Each valve shall have a backwash accessory.

**2.2 PLUG VALVES**

- A. Plug valves shall be suitable for sewage flows and for buried, submerged or above grade service. Plug valves shall be manually actuated straight way valves of the non-lubricated, eccentric type with resilient faced plugs, mechanical joint ends for buried service and

flanged for lift station. Plug valves shall be full bore for valves through 20”.

- B. Valve bodies shall be semi-steel or cast iron with raised seats. The face of the seats shall be corrosion resistant nickel or epoxy coated. Upper and lower plug stem bushings shall be of stainless steel or isolated with O-rings and permanently lubricated. Valves shall be of the bolted bonnet design. Packing and valves shall be O-ring or adjustable type. Valves and actuator for submerged service shall have seals on all shafts, and gaskets on valve submersed service shall be totally enclosed and shall have gasket seals. All exposed nuts, bolts, strings and washers for submerged valves shall be zinc plated or stained steel.
- C. Plug valve pressure ratings: Sizes through 12” 175 psi.
- D. Valves shall be capable of drip-tight shutoff up to the full valve rating with pressure in either direction.
- E. Buried valves shall have an AWWA, 2’ square actuating nut. One T-handle wrench shall be furnished. Manual valves for the lift station shall have lever actuators up to 10” in size. Valves 10” and larger shall have gear actuators. Plug valves in the vertical riser on the discharge side of the pump shall have chain wheel operators. All gearing shall be enclosed in semi-steel housing and be suitable for running in a lubricant with direct and waterproof Seals provided on shafts. Actuator shafts shall be supported by permanently lubricated bronze bearings. Plug valves shall be manufactured by Dezurik or Homestead or equal.

### **2.3 VALVE BOXES**

Valve boxes shall be provided for all buried valves. Valve boxes shall consist of cast iron base and adjustable top section with cover that shall be marked "Sewer". Extensions shall be provided as required to meet grade.

**END OF SECTION**

**SECTION 15110  
VALVES AND ACCESSORIES – RECLAIMED WATER**

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**PART I – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets forth the requirements for materials and operations necessary to provide and install valves, taps, and various accessories. This Section will apply for the additional materials the CONTRACTOR is required to provide and install above and beyond materials provided by the CITY.

**1.2 REFERENCES**

The CITY's Utility Department Standard Details, latest edition and Sections 15100 and 02616.

**PART 2 – PRODUCTS**

**2.1 GATE VALVES**

- A. Gate valves 20" and less in diameter shall be ductile iron body resilient seated gate valve, fusion bonded on the interior and exterior of the valve in accordance with AWWA C509-87, 0-ring type with non-rising stem, and opening counterclockwise. Valves shall be manufactured in accordance with AWWA C-509-87 for NRS valves and designed for 250 psi working pressure. Valves for buried services shall have mechanical joint ends and operation nut in accord with AWWA C509. One socket valve wrench shall be provided with extension as required. Valves for above ground shall be American Standard flanged, with wheel operator. The provided valves shall be manufactured in the United States and be acceptable to the CITY.
- B. Gate valves 20" in diameter and larger shall be cast iron bodies, bronze mounted, double discs, 0-ring type with non-rising stem and opening counterclockwise. Valves shall be manufactured in accordance with AWWA C500-71 for NRS valves and designed for 150 psi working pressure. Valves for buried service shall have mechanical joints ends and operating nut in accord with AWWA C500. One socket valve wrench shall be provided with extension as required. Valves for above ground shall be American Standard flanged, with wheel operator.

## **2.1 VALVE BOXES**

Valve boxes shall be provided for all buried valves. Valve boxes shall consist of cast iron base and adjustable top section with cover that shall be marked "Reclaimed Water". Extensions shall be provided as required to meet grade.

## **2.3 AIR RELEASE AND/OR COMBINATION VALVE ASSEMBLY**

- A.** An air release valve assembly shall be furnished and installed on the water main as shown on the drawings. Air release valve assembly shall consist of a combination short body, air release vacuum breaker valve, installed in a manhole or vault with vented manhole cover, gate valve, fittings, tapping saddle and connecting piping to the main. The combination valve will include air intake valving.
  
- B.** Air release and or combination valves shall be 1" for 16" diameter pipe and smaller and 2" for 18" diameter and above pipe and shall be the automatic type installed in a concrete manhole or vault as shown on the drawing sized to totally enclose the valve. Pipe, fittings, and valves for the assembly shall be as specified. A corporation stop shall be tapped into the main using the procedures as recommended by the iron pipe Manufacturer. The corporation stop shall be Mueller H-10045, or Hays 5284, or equal. The valve shall be Type N, Crispin, as manufactured by Multiplex Manufacturing Company, or Model 200 APCO, as manufactured by Valve and Primer Corporation, or equal.

## **2.4 HOSE BIBB WITH VACUUM BREAKER**

Hose bibbs shall be Woodford Model Y24, Mueller, Crane, or approved equal, with inside I.P. thread and wheel handle. A vacuum breaker shall be installed on all hose bibbs. Hose bibb vacuum breaker shall be Woodford Model Nidel NH, Watts No. NFI, A.W. Cash type VB or approved equal.

## **2.5 SETTING VALVES AND BOXES**

Valves and valve boxes as specified in the preceding paragraphs shall be installed where shown on the drawings unless otherwise directed. Valves shall be set plumb with the base of the valve box centered over the valve and resting on compacted backfill. The top section of the box shall be set to allow equal movement above and below finished grade. After being correctly positioned, fill shall be carefully tamped around the valve box for a distance of 4' on all sides of the box. In paved areas, top of the cover shall be flush with the finished paving. In off-street areas, the cover shall be set 1" above existing grade unless otherwise directed by the CITY/ ENGINEER and a concrete pad shall be poured around the top of the box as shown in the standard details.

## **2.6 TAPPING SLEEVE AND TAPPING VALVE**

The tapping sleeve and valve shall be designed for making a wet tap on an existing water main. The tapping sleeve and valve shall be made of high quality ductile iron conforming to the material specifications of ANSI/AWWA C110/A21.10. The tapping sleeve shall be equipped with a molded rubber gasket to completely encircle the tapped opening thereby insuring a complete watertight connection. It shall be designed to withstand a working pressure of at least 200 psi. The outlet change of the tapping sleeve and valve shall be Class 125 (A.S.A.B16.1-1960). The tapping sleeve and valve shall be hot dipped Galvanized after fabrication. All internal threads shall be tapped or re-tapped after galvanizing. The tapping sleeve and valve shall include all necessary bolts, nuts and gaskets. The tapping sleeve shall be a mechanical joint type with a flanged outlet such as MUELLER Model H-615, American-Darling, or approved equal. The tapping valve shall be a resilient seat gate valve, such as MUELLER Model H-665, American-Darling model 565, U.S. Pipe Metro Seal model 505860 or approved equal.

**END OF SECTION**



**DIVISION**

**16**

**ELECTRICAL**

**SECTION 16101  
ELECTRICAL AND FIBER-OPTIC CONDUIT**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section set forth the requirements for materials and operations necessary for the installation of steel and PVC electrical and fiber-optic carrier conduit.

**1.2 REFERENCES**

- A. CITY Utilities Department Standard Details latest edition, Section 01300, Section 15066 and:
1. American National Standards Institute (ANSI)
  2. National Electrical Manufacturers Association (NEMA)
  3. Underwriters' Laboratories (UL)
  4. Insulated Cable Engineers Association (ICEA)
  5. Institute of Electrical and Electronics Engineers (IEEE)

**1.3 SUBMITTALS**

- A. Submit shop drawings on all specified equipment and include at minimum sufficient information to indicate complete compliance with specifications. Such data shall include "cuts", catalog data sheets, drawings, and/or certifications as necessary. Submit additional information as directed by the CITY.

**1.4 JOB CONDITIONS**

- A. The CONTRACTOR shall visit the site prior to bidding and include all requirements dictated by site conditions in the Bid submittal

**PART 2 – PRODUCTS**

**2.1 GENERAL**

- A. All conduit shall be new.

## **2.2 RACEWAY SYSTEMS**

- A. All conduit shall bear the UL label.
- B. Conduit sizes shown or called for are minimum requirements.
- C. Rigid steel conduits for installation in casing pipes, shall be mild steel galvanized inside and out with galvanized threads. Unless otherwise called for on the drawings, rigid galvanized steel conduit for direct burial shall be coated with an approved asphaltic paint. Where called for on the drawings, rigid galvanized steel conduit shall be of the 40 mil PVC bonded type with the bonded PVC jacket extending the full length of the pipe except the threads. Fittings for rigid steel conduit shall be threaded and galvanized malleable iron.
- D. Outlet bodies for rigid steel conduit shall be threaded and galvanized malleable iron.
- E. Rigid steel conduit sleeves, for 40 mil PVC bonded conduit shall have a 40 mil PVC bonded coating.
- F. For buried conduit Schedule 40 PVC conduit shall be used. PVC conduit shall be Schedule 40 PVC conduit manufactured from ASTM D 1784 PVC in compliance with NEMA TC-2. PVC conduit shall be UL listed. Joints shall be solvent cement type.
- G. Provide PVC long sweep elbows, bends, fittings, and adaptors as required for a complete installation. Provide solvent cement as recommended by the conduit manufacturer.

## **PART 3 - EXECUTION**

### **3.1 RACEWAY SYSTEMS**

- A. Conduits: Verify conduit sizes with the dimensions of the particular wires and cables to be installed.
- B. Exposed conduits shall be neatly installed and painted the same color as the adjacent surfaces.
- C. Runs shall be parallel and, in general, perpendicular or parallel to walls, floors or principal structural elements.

- D. To prevent motion in any direction conduits shall be supported and secured by galvanized wall bracket, ceiling trapeze or pipe clamps approved by the Engineer. Perforated metal strap hangers and wire hangers are not acceptable.
- E. All job cut threads shall be given a coat of rust-resistant paint, zinc chromate, or equivalent. All threaded joints shall be made watertight with a waterproofing compound. Conduits that have been cut shall have burrs removed by reaming.
- F. At conduits connections to enclosures or boxes, install locknuts inside and outside of the enclosure or box on all conduits. Install insulating bushings on all conduits.
- G. Liquid tight flexible metallic conduit shall be installed in such a manner that liquids tend to run off the surface and not drain toward the fittings. Sufficient slack shall be provided to reduce the effects of vibration. Where the fittings are brought into an enclosure with a knock-out, a gasket assembly consisting of an "O" rings and retainer, shall be provided on the outside.
- H. Set-screw conduit connectors and running thread couplings shall not be used. Conduit and equipment connected by conduit shall be so installed as to provide proper continuous grounding bonds, using bonding jumpers where required.
- I. Make joints in PVC conduit in compliance with the manufacturers instructions. Make all bends by means of an electrical heating unit approved by the conduit manufacturer where standard elbows and fittings cannot be used.
- J. Conduit ends shall be capped or plugged as soon as possible after installation.
- K. Separation of conduit from other pipes; Do not run conduit directly under cold water lines and separate from same in other directions by at least 3-inches or as shown on the drawings.
- L. Termination of empty conduit; Terminate empty conduits with smooth insulating bushings and/or cap.

- M. Installation and drawings: Follow the layout shown on the drawings. This layout is, however, diagrammatic only and where changes are necessary due to structural conditions, interference with other apparatus or other causes, make such changes without additional cost to the Owner. Install offsets in conduits as required by the conditions.
- N. Backfill for buried Conduit: When trenching and backfilling for conduit under proposed or existing pavement, the pavement replacement and backfill compaction shall be in accordance with Section 02202 and the CITY Utilities Department Standard Details, latest edition.

**END OF SECTION**

# **APPENDIX**

## **A**

# **SANITARY DEP PERMIT**

In the Matter of an  
Application for Permit by:

**PERMITTEE:**  
Mr. Shannon Ponitz, P.E.  
Utilities Director  
City of Daytona Beach  
125 Basin Street Suite 204  
Daytona Beach FL 32114  
[ponitzshannon@codb.us](mailto:ponitzshannon@codb.us)

**PERMIT NUMBER:** 0342135-005--DWC/CM  
**ISSUANCE DATE:** January 7, 2019  
**EXPIRATION DATE:** January 6, 2024  
**COUNTY:** Volusia  
**PROJECT NAME:** S Beach Street Forcemain  
Improvements  
**WASTEWATER TREATMENT:** Daytona  
Beach Bethune Point WWTF  
**FACILITY ID:** FL0025984

### NOTICE OF PERMIT ISSUANCE

Enclosed is Permit Number 0342135-005--DWC/CM to construct a domestic wastewater collection/transmission system, issued pursuant to Section 403.087(1), Florida Statutes.

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

#### Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at [Agency\\_Clerk@dep.state.fl.us](mailto:Agency_Clerk@dep.state.fl.us). Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

#### Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within **14** days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

#### Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, or via electronic correspondence at [Agency\\_Clerk@dep.state.fl.us](mailto:Agency_Clerk@dep.state.fl.us), before the deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

#### Mediation

Mediation is not available in this proceeding.

#### Judicial Review

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department in the Office of General Counsel (Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days from the date this action is filed with the Clerk of the Department.



Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



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Nathan Hess  
Program Administrator  
Permitting and Waste Cleanup Program

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this document and all attachments were sent on the filing date below to the following listed persons:

Copies furnished to:

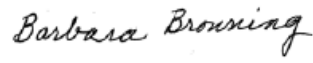
Haluk Kilic, P.E., Zev Cohen & Associates, [hkilic@zevcohen.com](mailto:hkilic@zevcohen.com)

Wilmott Brown, DEP, [wilmott.brown@dep.state.fl.us](mailto:wilmott.brown@dep.state.fl.us)

Charles LeGros, DEP, [Charles.LeGros@dep.state.fl.us](mailto:Charles.LeGros@dep.state.fl.us)

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.



---

Clerk

January 7, 2019  
Date

**STATE OF FLORIDA**  
**DOMESTIC WASTEWATER COLLECTION/TRANSMISSION INDIVIDUAL PERMIT**

**PERMITTEE:**

Mr. Shannon Ponitz, P.E.  
Utilities Director  
City of Daytona Beach  
125 Basin Street, Suite 204  
Daytona Beach FL 32114  
[ponitzshannon@codb.us](mailto:ponitzshannon@codb.us)

**PERMIT NUMBER:** 0342135-005--DWC/CM

**ISSUANCE DATE:** January 7, 2019

**EXPIRATION DATE:** January 6, 2024

**COUNTY:** Volusia

**PROJECT NAME:** S Beach Street Forcemain  
Improvements

**WASTEWATER TREATMENT:** Daytona  
Beach Bethune Point WWTF

**FACILITY ID:** FL0025984

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4 and 62-604, Florida Administrative Code (F.A.C.).

The above named permittee is hereby authorized to construct the facilities shown on the application and other documents on file with the Department and made a part hereof and specifically described as follows:

**DESCRIPTION OF PROJECT:**

Construction of a sewage collection/transmission system serving existing infrastructure, not generating any new flow.

The sewage collection/transmission system shall consist of: (A) 6,106 linear feet (LF) of 36 inch DIP forcemain, (B) 59 LF of 8 inch PVC gravity main, and (C) associated manhole and valves.

**LOCATION OF PROJECT:**

This project is located along South Beach Street including Live Oak Street and Fremont Court to Bethune Point WWTF, Daytona Beach, Volusia County, Florida.

**IN ACCORDANCE WITH:** The limitations, requirements and other conditions set forth in pages 1 through 3 of this permit.

## PERMIT CONDITIONS:

1. This permit is subject to the general conditions of Rule 62-4.160, F.A.C., as applicable. This rule is available at the Department's Internet site at:  
<http://www.dep.state.fl.us/legal/Rules/shared/62-4/62-4.pdf> [62-4.160]
2. Upon completion of construction of the collection/transmission system project, and before placing the facilities into operation for any purpose other than testing for leaks or testing equipment operation, the permittee shall submit to the Department's Central District Office Form 62-604.300(8)(b), Request for Approval to Place a Domestic Wastewater Collection/Transmission System into Operation. This form is available at the Department's Internet site at:  
<http://www.dep.state.fl.us/water/wastewater/dom/dw-forms.htm> [62-604.700(2)]

**Please submit the entire clearance document package in electronic format to [DEP\\_CD@dep.state.fl.us](mailto:DEP_CD@dep.state.fl.us), with a copy to [wilmott.brown@dep.state.fl.us](mailto:wilmott.brown@dep.state.fl.us), and [Charles.LeGros@dep.state.fl.us](mailto:Charles.LeGros@dep.state.fl.us).** If the file is very large, you may post it to the Wastewater Electronic Applications folder on the following ftp site at:

<ftp://ftp.dep.state.fl.us/pub/wastewater/>

After posting the document, send an e-mail to [DEP\\_CD@dep.state.fl.us](mailto:DEP_CD@dep.state.fl.us), with a copy to [wilmott.brown@dep.state.fl.us](mailto:wilmott.brown@dep.state.fl.us), and [Charles.LeGros@dep.state.fl.us](mailto:Charles.LeGros@dep.state.fl.us), alerting us that it has been posted. Any submitted drawings (should be sized 11" x 17") and the engineer of record's signed seal and dates on the required document must be legible for acceptance.

For further clarification contact:  
Wilmott Brown, (407) 897-4155  
3319 Maguire Blvd, Suite 232  
Orlando, Florida 32803-3767

3. The new or modified collection/transmission facilities shall not be placed into service until the Department clears the project for use. [62-604.700(3)]
4. Permit revisions shall only be made in accordance with Rule 62-4.050(4)(s), F.A.C. Request for revisions shall be made to the Department in writing and shall include the appropriate fee. Revisions not covered under Rule 62-4.050(4)(s), F.A.C., shall require a new permit. [62-604.600(8)]

5. Abnormal events shall be reported to the Department's Central District Office in accordance with Rule 62-604.550, F.A.C. For unauthorized spills of wastewater in excess of 1000 gallons per incident, or where information indicates that public health or the environment may be endangered, oral reports shall be provided to the STATE WATCH OFFICE TOLL FREE NUMBER, (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee or other designee becomes aware of the circumstances. Unauthorized releases or spills less than 1000 gallons per incident are to be reported orally to the Department's Central District Office within 24 hours from the time the permittee, or other designee becomes aware of the circumstances. [62-604.550]

Executed in Orlando, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



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Nathan Hess  
Program Administrator  
Permitting and Waste Cleanup Program

January 7, 2019

# **APPENDIX**

## **B**

# **GEO TECHNICAL REPORT**



# UNIVERSAL ENGINEERING SCIENCES

## GEOTECHNICAL EVALUATION

*Proposed 36-Inch Force Main  
Beach Street  
Daytona Beach, Florida*

UES Project No. 0430.1100025.0000  
UES Report No. 118995

May 2, 2011

*Prepared for:*

**Frank Van Pelt, CPM**  
City of Daytona Beach  
Utilities Engineering Division  
125 Basin Street, Suite 130  
Daytona Beach, Florida 32114

*Prepared by:*

**UNIVERSAL ENGINEERING SCIENCES**  
911 Beville Road, Suite 3  
South Daytona, Florida 32119  
Phone (386) 756-1105 FAX (386) 760-4067

### **CONSULTANTS:**

Geotechnical Engineering ▪ Environmental Engineering ▪ Construction Materials Testing  
Threshold Inspection ▪ Private Provider Inspection ▪ Geophysical Studies

**OFFICES:** Daytona Beach, FL ▪ Fort Myers, FL ▪ Fort Pierce, FL ▪ Gainesville, FL ▪ Jacksonville, FL ▪ Leesburg, FL ▪ Miami, FL ▪ Norcross, GA ▪ Ocala, FL ▪ Orange City, FL  
Orlando, FL ▪ Palm Coast, FL ▪ Panama City, FL ▪ Pensacola, FL ▪ Rockledge, FL ▪ Sarasota, FL ▪ St. Augustine, FL ▪ Tampa, FL ▪ West Palm Beach, FL  
City of Daytona Beach





# UNIVERSAL ENGINEERING SCIENCES

Consultants In: Geotechnical Engineering • Environmental Engineering •  
Construction Materials Testing • Threshold Inspection • Private Provider Inspection • Geophysical Studies

Offices In:  
• Daytona Beach, FL  
• Fort Myers, FL  
• Fort Pierce, FL  
• Gainesville, FL  
• Jacksonville, FL  
• Leesburg, FL  
• Miami, FL  
• Norcross, GA  
• Ocala, FL  
• Orlando, FL  
• Palm Coast, FL  
• Panama City, FL  
• Pensacola, FL  
• Rockledge, FL  
• Sarasota, FL  
• St. Augustine, FL  
• Tampa, FL  
• West Palm Beach, FL

May 2, 2011

Mr. Frank Van Pelt, CPM  
City of Daytona Beach  
Utilities Engineering Division  
125 Basin Street, Suite 130  
Daytona Beach, Florida 32114

Reference: **GEOTECHNICAL EVALUATION**  
***Proposed 36-Inch Force Main***  
***Daytona Beach, Florida***  
**UES Project No. 0430.1100025.0000 and UES Report No. 118995**

Dear Mr. Van Pelt:

Universal Engineering Sciences, Inc. has completed the geotechnical evaluation for the subject project located in Daytona Beach. This report contains the results of our investigations, an engineering interpretation of these with respect to the project characteristics described to us, and recommendations for utility installation considerations and earthwork operations.

We appreciate the opportunity to have worked with you on this project and look forward to a continued association. Please do not hesitate to contact us if you should have any questions, or if we may further assist you as your plans proceed.

Respectfully submitted,

**UNIVERSAL ENGINEERING SCIENCES**

  
Brian C. Pohl, P.E.  
Branch Manager  
P.E. Number 60216

Cc: Mr. Bobby Ball, P.E.-Zev Cohen & Associates, Inc.

## **1.0 INTRODUCTION**

### **1.1 GENERAL**

In this report we present the results of the subsurface evaluation for the proposed underground utility improvements in Daytona Beach, Florida. We have divided this report into the following sections:

- SECTION 2.0 - SCOPE OF SERVICES
- SECTION 3.0 - FINDINGS
- SECTION 4.0 - UNDERGROUND UTILITY INSTALLATION  
RECOMMENDATIONS
- SECTION 5.0 - LIMITATIONS

## **2.0 SCOPE OF SERVICES**

### **2.1 PROJECT DESCRIPTION**

Project information has been provided to us during correspondence with you. We understand the project will consist of the construction of approximately 5,600 linear feet of 36-inch diameter force main. The majority of the pipes will bear beneath existing pavement along Beach Street up to Palmetto Avenue with a portion being within an unpaved area up to the Bethune Plant. The pipes will typically bear 3 to 7 feet below grade.

Our recommendations are based upon the above considerations. If any of this information is incorrect, or if you anticipate any changes, inform Universal Engineering Sciences so that we may review our recommendations.

### **2.2 PURPOSE**

The purposes of this investigation were:

- to investigate the general subsurface conditions at the site;
- to interpret and review the subsurface conditions with respect to the proposed construction; and
- to provide geotechnical engineering recommendations for utility installation considerations and earthwork preparation operations.





This report presents an evaluation of site conditions on the basis of traditional geotechnical procedures for site characterization. The recovered samples were not examined, either visually or analytically, for chemical composition or environmental hazards. Universal Engineering Sciences would be pleased to perform these services, at your request.

Our investigation was confined to the zone of soil likely to be stressed by the proposed construction. Our work did not address the potential for surface expression of deep geological conditions, such as sinkhole development related to karst activity. A deep geological evaluation requires a more extensive range of field services than performed in this study.

## **2.3 FIELD INVESTIGATION**

### **2.3.1 Borings**

The subsurface conditions within the proposed utility improvement corridor were explored with twelve (12) Standard Penetration Test (SPT) borings (B-1 through B-12) advanced to a depth of approximately 10 feet each below the existing grade. We performed the SPT Borings according to the procedures of ASTM D-1586. As an exception, the upper 3 to 4 feet of the SPT borings were performed by method of Hand Auger in order to avoid any underground utilities.

The borings were located by our field personnel using taped measurements from existing site features, and should be considered accurate only to the degree implied by the method used. The locations of the borings are presented on the attached Boring Location Plan in Appendix A.

Samples obtained from the borings were transported to our laboratory for further evaluation. Samples of the soils encountered will be held in our laboratory for your inspection for 60 days unless we are notified otherwise.

## **2.4 LABORATORY INVESTIGATION**

The soil samples recovered from the soil borings were returned to our laboratory and then a UES engineer visually examined and reviewed the field descriptions. We selected representative soil samples for laboratory index testing consisting of wash 200 gradation determination tests. We performed these tests to aid in classifying the soils and to help evaluate the general engineering characteristics of the site soils. Please see Appendix B for a description of the laboratory testing procedures.



### **3.0 FINDINGS**

#### **3.1 SUBSURFACE CONDITIONS**

The boring locations and detailed subsurface conditions are illustrated in Appendix A, Subsurface Profiles. The classifications and descriptions shown on the profiles are based upon visual and laboratory characterizations of the recovered soil samples. Also, see Appendix A: Key to Boring Log, for further explanation of the symbols and placement of data on the Subsurface Profiles. The following discussion summarizes the soil conditions encountered.

In general the results of the borings performed indicated the presence of very loose to medium dense fine sand with varying shell content (SP) and fine sand with silt (SP-SM) from existing grade to the 10-foot termination depths. As an exception, very soft to soft sandy silt (MH), sandy silt with large roots (OH), and organic clay (OH) was encountered at Boring B-2 through B-5, and B-7 locations. Also, fine sand with some large pieces of wood debris was observed at 9.0 feet at Boring B-10 location. Based on visual observation and slight petroleum odor, it is our opinion this material is most likely pieces of old marine/dock components from many years ago.

#### **3.2 GROUNDWATER**

The groundwater levels were recorded between 3.6 and 5.1 feet below grade. It should be noted that groundwater tends to perch on top of the sandy silt and clay soils (MH/OH) subsequent to heavy rainfall activity.

### **4.0 UNDERGROUND UTILITY INSTALLATION RECOMMENDATIONS**

#### **4.1 GENERAL**

It is anticipated that a significant portion of the proposed underground utility pipelines and structures will be placed at depths coinciding with the very loose to medium dense sandy soils with varying shell content encountered during our subsurface exploration within the upper 10 feet. However, an approximate 2-foot separation is recommended between the pipe and structure bearing levels and the sandy silt (MH) in order to provide firm, uniform bearing conditions for the utility pipelines. No lateral removal of these soils are required assuming the excavations for the pipe trench are performed per OSHA standards. Any organic soils (OH, PT) should be completely removed vertically and laterally 3 feet beyond any underground utility pipeline or structure. Based on the depths of soils containing roots and organic materials (OH, PT), it appears this material would most likely be excavated regardless to meet pipe installation depths. Depending on the pipe bearing depth at the vicinity of Boring B-11 location and the magnitude of the debris, partial or complete removal of the debris may be required. If the pipe will bear within two to three feet of the debris



(encountered at 9 feet), we recommend that a back hoe excavated test pit be performed to determine the magnitude (horizontal and vertical extent) of the wood debris. The implementation of a geogrid may be required in order to preclude complete over-excavation.

The silt (MH) and organic soils (OH, PT) are not considered suitable for use as backfill. Sandy silt, organic clay, and soil containing many roots or debris should be over-excavated and replaced with compacted structural backfill. Based on anticipated bearing depths, this will be required along some portions of the project. We recommend a representative of UES verify the material in place during construction operations.

## 4.2 SITE PREPARATION RECOMMENDATIONS

We recommend the following site preparation procedures to preclude significant settlement of the pipeline alignment section:

1. Implement temporary groundwater control measures. It is recommended the groundwater be maintained at least 18 inches below compacted surfaces, and also 18 inches below the depths of excavation required. Temporary groundwater control measures should be the responsibility of the contractor. The majority of the encountered soils along the corridor consisted of clean "free draining" material (sand/shell mixture), which will result in copious amounts of groundwater presence, if depth of excavation is below the groundwater level. The silt/clay soils inherently will be more difficult to dewater. The contractor should take the varying conditions into consideration.
2. Excavate to the proposed utility bearing level. Maintain a minimum separation of at least 2 feet between the utility bearing depths and the top of the sandy silt soils or clay. A UES representative should be present to verify the soil conditions. Silt or clay present within the separation zone should be over-excavated and replaced by compacted structural backfill. FDOT No. 57 stone placed below the pipeline or buried structure bearing depths in a thickness of one foot can be used in lieu of compacted structural backfill if necessary. It is recommended the stone be fully wrapped with a geotextile filter fabric such as Contech C 31NW or equivalent. The excavations should be performed in accordance with OSHA specifications.
3. Compact the exposed surface of sandy soils within the excavations with lightweight, hand equipment until a density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D-1557) is achieved within the upper one foot. Any silt or clay soils should not be compacted directly from the exposed surface. If clay or silt is present at the exposed surface, it is



recommended an initial 0.5-foot thick layer of structural backfill be placed and compacted on top of these soils. Also, as discussed, No. 57 stone can be used. We recommend the compacted soils have moisture content within 2 percent of the optimum value as determined by the Modified Proctor maximum dry density (ASTM-D1557).

Should the soils experience pumping and soil strength loss during the compaction operations, compaction work should be immediately terminated and (1) the disturbed soils removed and backfilled with dry structural fill soils which are then compacted, or (2) the excess moisture content within the disturbed soils allowed to dissipate before recompacting.

4. Place fill material, as required. The fill should consist of "clean," fine sand with less than 5 percent soil fines. You may use fill materials with soil fines between 5 percent and 10 percent, but strict moisture control may be required. Place fill in uniform 10 to 12-inch loose lifts and compact each lift to a minimum density of 95 percent of the Modified Proctor maximum dry density. We recommend the compacted soils have moisture content within 2 percent of the optimum value as determined by the Modified Proctor maximum dry density (ASTM-D1557).
5. Perform compliance tests within each lift of backfill at a frequency of not less than one test per 300 linear feet of pipeline.



## 5.0 LIMITATIONS

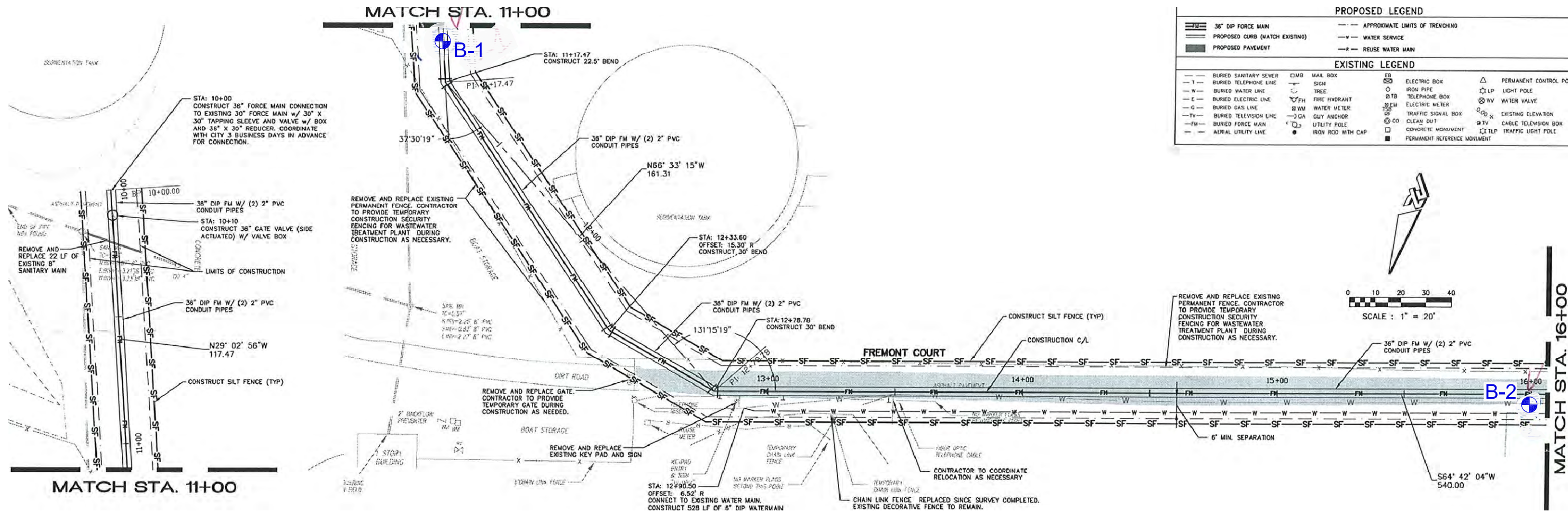
During the early stages of most construction projects, geotechnical issues not addressed in this report may arise. Because of the natural limitations inherent in working with the subsurface, it is not possible for a geotechnical engineer to predict and address all possible problems. An Association of Engineering Firms Practicing in the Geosciences (ASFE) publication, "Important Information about Your Geotechnical Engineering Report" appears in Appendix C, and will help explain the nature of geotechnical issues. Further, we present documents in Appendix C: Constraints and Restrictions, to bring to your attention the potential concerns and the basic limitations of a typical geotechnical report.

Our field exploration did not find unsuitable or unexpected materials at the time of occurrence. However, borings for a typical geotechnical report are widely spaced and generally not sufficient for reliably detecting the presence of isolated, anomalous surface or subsurface conditions, or reliably estimating unsuitable or suitable material quantities. Accordingly, UES does not recommend relying on our boring information to negate presence of anomalous materials or for estimation of material quantities unless our contracted services **specifically** include sufficient exploration for such purpose(s) and within the report we so state that the level of exploration provided should be sufficient to detect such anomalous conditions or estimate such quantities. Therefore, UES will not be responsible for any extrapolation or use of our data by others beyond the purpose(s) for which it is applicable or intended.



**APPENDIX A**  
**BORING LOCATION PLAN**  
**SUBSURFACE PROFILE**  
**SOILS CLASSIFICATION CHART**

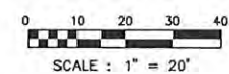




PROPOSED LEGEND	
36" DIP FORCE MAIN	APPROXIMATE LIMITS OF TRENCHING
PROPOSED CURB (MATCH EXISTING)	WATER SERVICE
PROPOSED PAVEMENT	REUSE WATER MAIN

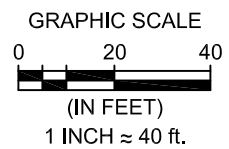
  

EXISTING LEGEND	
BURIED SANITARY SEWER	MAIL BOX
BURIED TELEPHONE LINE	SIGN
BURIED WATER LINE	TREE
BURIED ELECTRIC LINE	FIRE HYDRANT
BURIED GAS LINE	WATER METER
BURIED TELEVISION LINE	GUY ANCHOR
BURIED FORCE MAIN	UTILITY POLE
AERIAL UTILITY LINE	IRON ROD WITH CAP
ELECTRIC BOX	IRON PIPE
TELEPHONE BOX	ELECTRIC METER
TRAFFIC SIGNAL BOX	CLEAN OUT
CONCRETE MONUMENT	PERMANENT MONUMENT
PERMANENT CONTROL POINT	LIGHT POLE
WATER VALVE	EXISTING ELEVATION
CABLE TELEVISION BOX	TRAFFIC LIGHT POLE

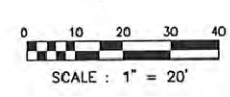
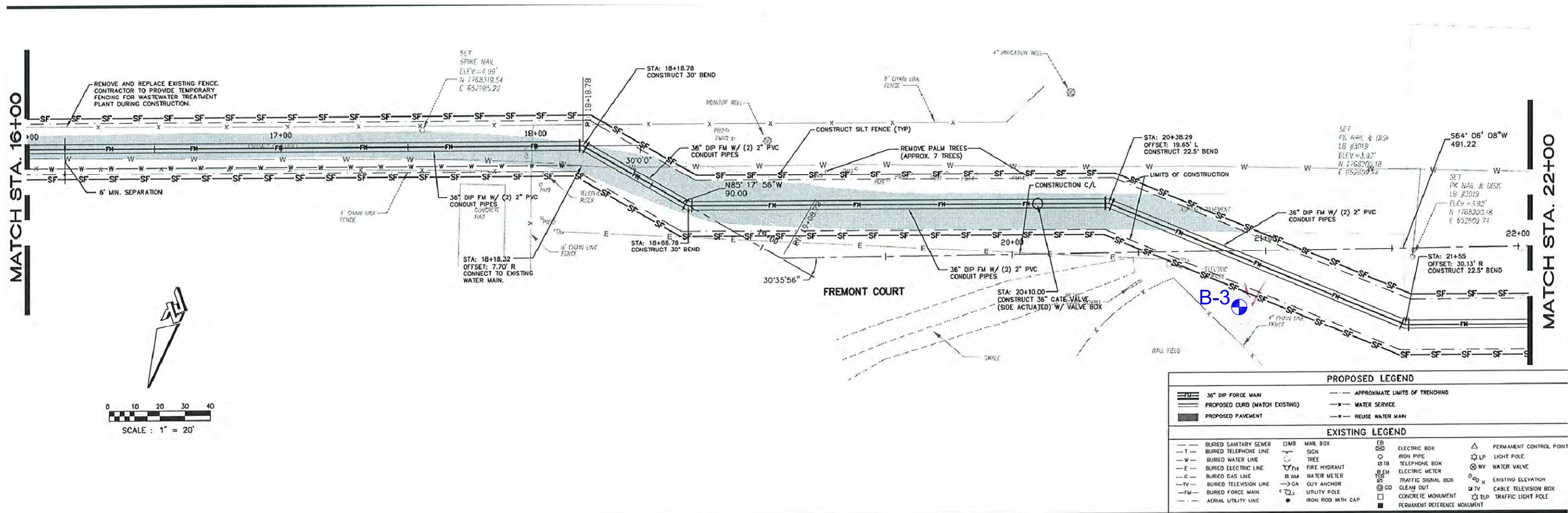


**LEGEND**

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



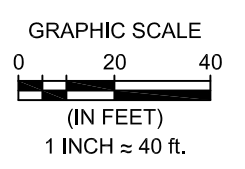
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DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000	SCALE:	1" ≈ 40'
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995	PAGE/FIG. NO.:	A-1A



PROPOSED LEGEND			
	36" DIP FORCE MAIN		APPROXIMATE LIMITS OF TRENCHING
	PROPOSED CURB (MATCH EXISTING)		WATER SERVICE
	PROPOSED PAVEMENT		REUSE WATER MAIN
EXISTING LEGEND			
	BURIED SANITARY SEWER		MAIL BOX
	BURIED TELEPHONE LINE		SIGN
	BURIED WATER LINE		TREE
	BURIED ELECTRIC LINE		FIRE HYDRANT
	BURIED GAS LINE		WATER METER
	BURIED TELEVISION LINE		CLAY ANCHOR
	BURIED FORCE MAIN		UTILITY POLE
	AERIAL UTILITY LINE		IRON ROD WITH CAP
	ELECTRIC BOX		IRON PIPE
	TELEPHONE BOX		ELECTRIC METER
	TRAFFIC SIGNAL BOX		CLEAN OUT
	CONCRETE MONUMENT		PERMANENT REFERENCE MONUMENT
	PERMANENT CONTROL POINT		LIGHT POLE
	WATER VALVE		EXISTING ELEVATION
	EXISTING TELEVISION BOX		CABLE TELEVISION BOX
	TRAFFIC LIGHT POLE		

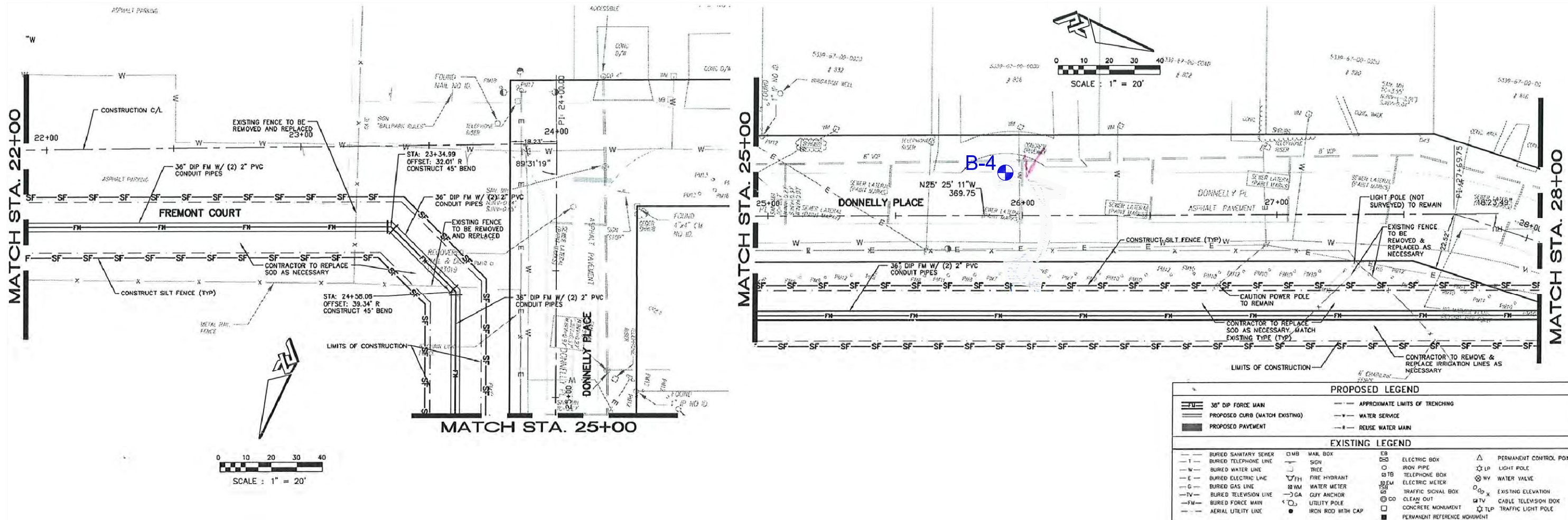
**LEGEND**

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



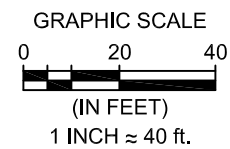
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PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH				<b>BORING LOCATION PLAN</b>	
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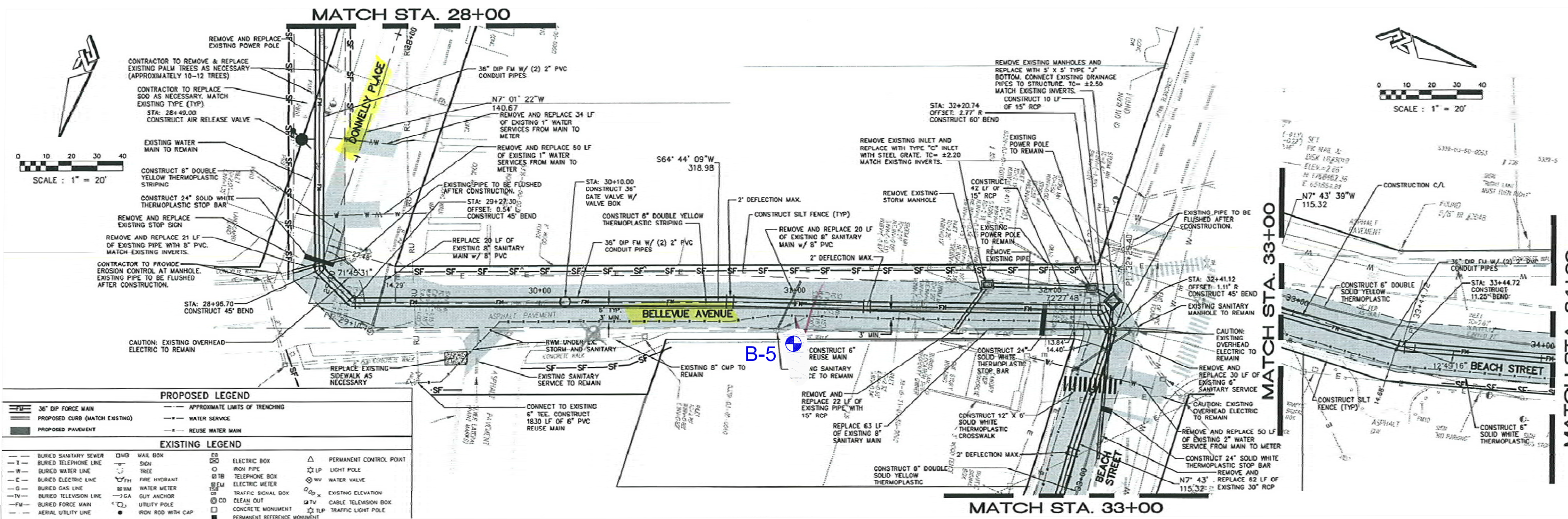
**LEGEND**

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



PROJECT:		PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH		TITLE:  <b>BORING LOCATION PLAN</b>	
DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995
				SCALE:	1" ≈ 40'
				PAGE/FIG. NO.:	
				A-1C	

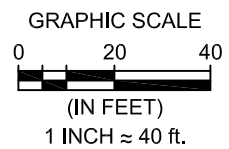




PROPOSED LEGEND	
36" DIP FORCE MAIN	APPROXIMATE LIMITS OF TRENCHING
PROPOSED CURB (MATCH EXISTING)	WATER SERVICE
PROPOSED PAVEMENT	REUSE WATER MAIN
EXISTING LEGEND	
BURIED SANITARY SEWER	MAN BOX
BURIED TELEPHONE LINE	SIGN
BURIED WATER LINE	TREE
BURIED ELECTRIC LINE	FIRE HYDRANT
BURIED GAS LINE	WATER METER
BURIED TELEVISION LINE	GUY ANCHOR
BURIED FORCE MAIN	UTILITY POLE
AERIAL UTILITY LINE	IRON ROD WITH CAP
ELECTRIC BOX	PERMANENT CONTROL POINT
IRON PIPE	LIGHT POLE
TELEPHONE BOX	WATER VALVE
ELECTRIC METER	EXISTING ELEVATION
TRAFFIC SIGNAL BOX	CABLE TELEVISION BOX
CLEAN OUT	TRAFFIC LIGHT POLE
CONCRETE MONUMENT	PERMANENT REFERENCE MONUMENT

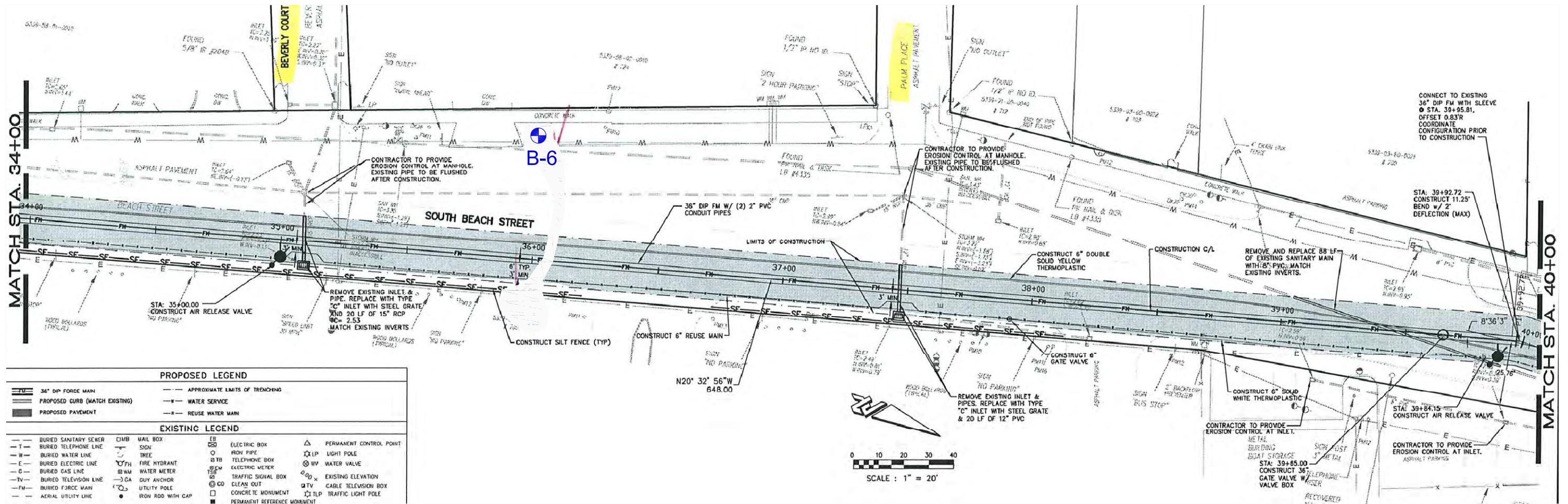
**LEGEND**

APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



PROJECT: <b>PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH</b>			TITLE: <b>BORING LOCATION PLAN</b>	
DRAWN BY: MKL	DATE: 04/26/11	PROJECT NO.: 0430.1100025.0000	SCALE: 1" ≈ 40'	PAGE/FIG. NO.: A-1D
CHECKED BY: BP	DATE: 04/26/11	REPORT NO.: 118995		



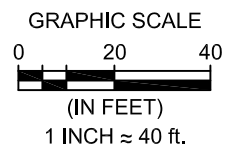


PROPOSED LEGEND							
	36" DIP FORCE MAIN						
	PROPOSED CURB (MATCH EXISTING)						
	PROPOSED PAVEMENT						
	APPROXIMATE LIMITS OF TRENCHING						
	WATER SERVICE						
	REUSE WATER MAIN						
EXISTING LEGEND							
	BURIED SANITARY SEWER		MAIL BOX		ELECTRIC BOX		PERMANENT CONTROL POINT
	BURIED TELEPHONE LINE		SIGN		IRON PIPE		LIGHT POLE
	BURIED WATER LINE		TREE		TELEPHONE BOX		WATER VALVE
	BURIED ELECTRIC LINE		FIRE HYDRANT		ELECTRIC METER		EXISTING ELEVATION
	BURIED GAS LINE		WATER METER		TRAFFIC SIGNAL BOX		CABLE TELEVISION BOX
	BURIED TELEVISION LINE		DUTY ANCHOR		CLEAN OUT		CONCRETE MONUMENT
	BURIED FORCE MAIN		UTILITY POLE		CONCRETE MONUMENT		TRAFFIC LIGHT POLE
	AERIAL UTILITY LINE		IRON ROD WITH CAP		PERMANENT REFERENCE MONUMENT		

**LEGEND**

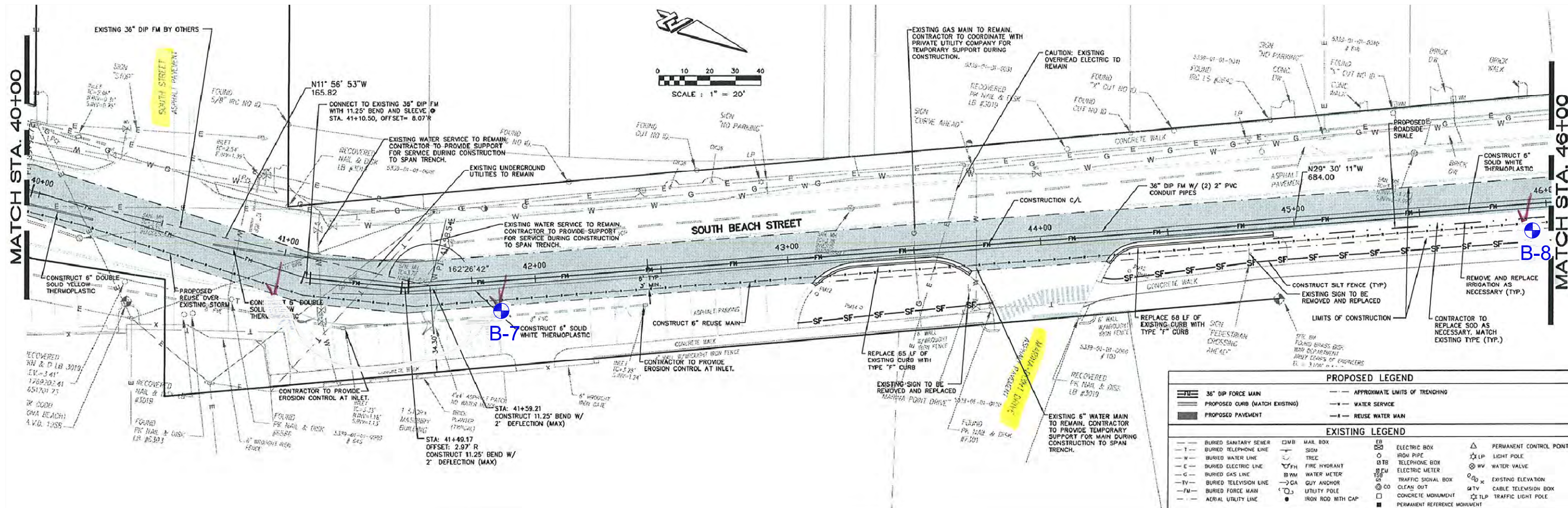


APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



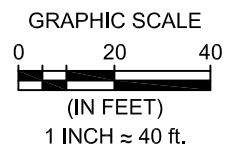
PROJECT:		PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH		TITLE: <b>BORING LOCATION PLAN</b>	
DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995
SCALE:				1" ≈ 40'	
				PAGE/FIG. NO.:	
				A-1E	





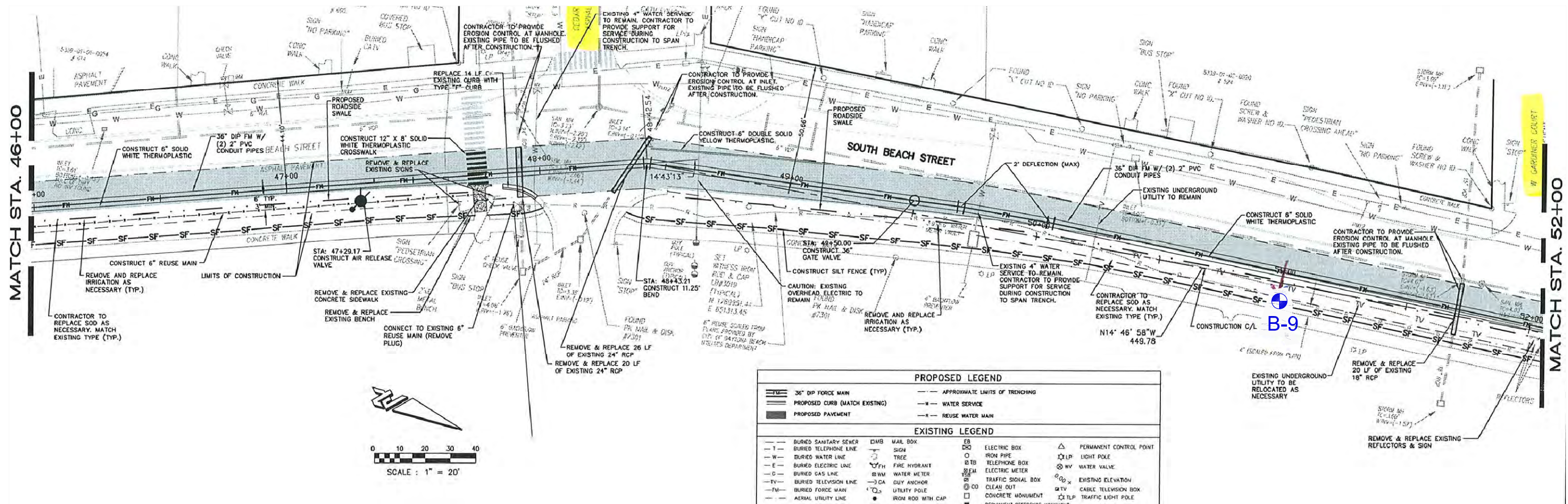
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APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



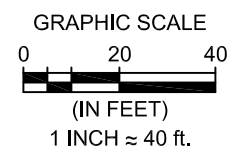
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DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995
SCALE:				1" ≈ 40'	
PAGE/FIG. NO.:				A-1F	





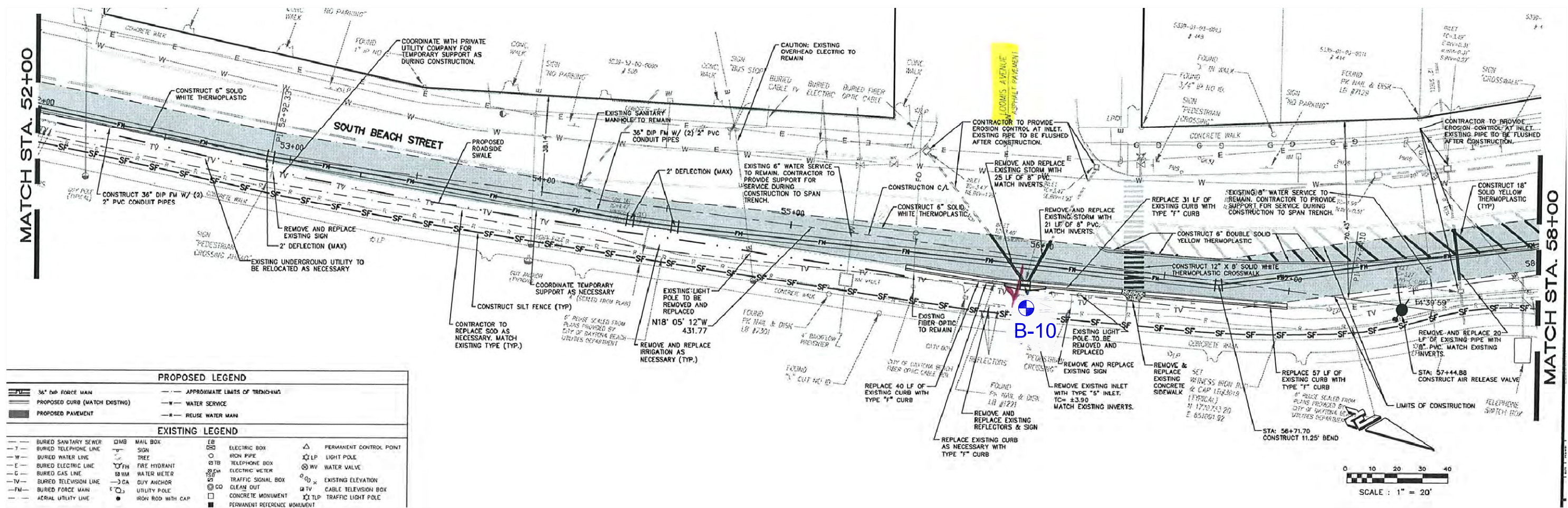
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APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



PROJECT:		PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH		TITLE: <b>BORING LOCATION PLAN</b>	
DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995
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				A-1G	





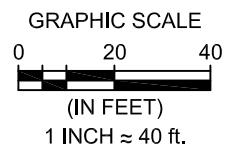
PROPOSED LEGEND	
	36" DIP FORCE MAIN
	PROPOSED CURB (MATCH EXISTING)
	PROPOSED PAVEMENT
	APPROXIMATE LIMITS OF TRENCHING
	WATER SERVICE
	REUSE WATER MAIN

EXISTING LEGEND							
	BURIED SANITARY SEWER		MAIL BOX		ELECTRIC BOX		PERMANENT CONTROL POINT
	BURIED TELEPHONE LINE		SIGN		IRON PIPE		LIGHT POLE
	BURIED WATER LINE		TREE		TELEPHONE BOX		WATER VALVE
	BURIED ELECTRIC LINE		FIRE HYDRANT		ELECTRIC METER		EXISTING ELEVATION
	BURIED GAS LINE		WATER METER		CLEAN OUT		CABLE TELEVISION BOX
	BURIED TELEVISION LINE		UTILITY POLE		CONCRETE MONUMENT		TRAFFIC LIGHT POLE
	BURIED FORCE MAIN		IRON ROD WITH CAP		PERMANENT REFERENCE MONUMENT		
	AERIAL UTILITY LINE						

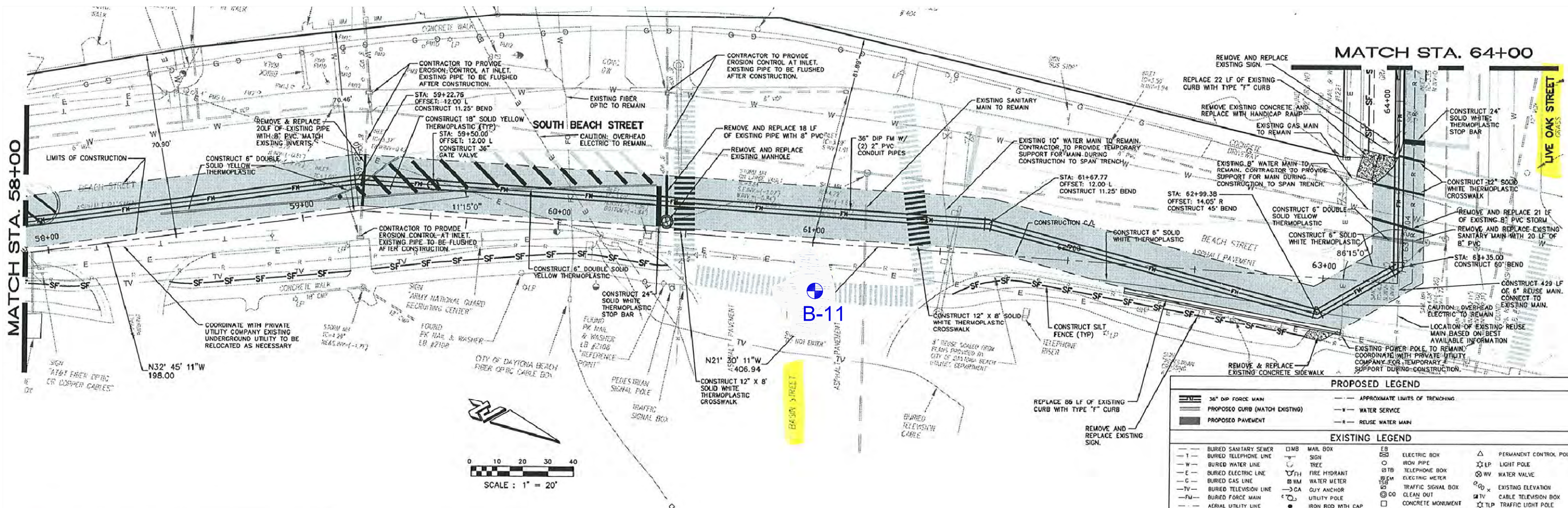
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APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



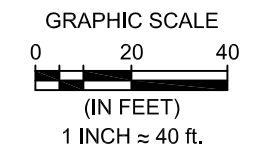
PROJECT:		PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH		TITLE:		BORING LOCATION PLAN	
DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000	SCALE:	1" ≈ 40'
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995	PAGE/FIG. NO.:	A-1H





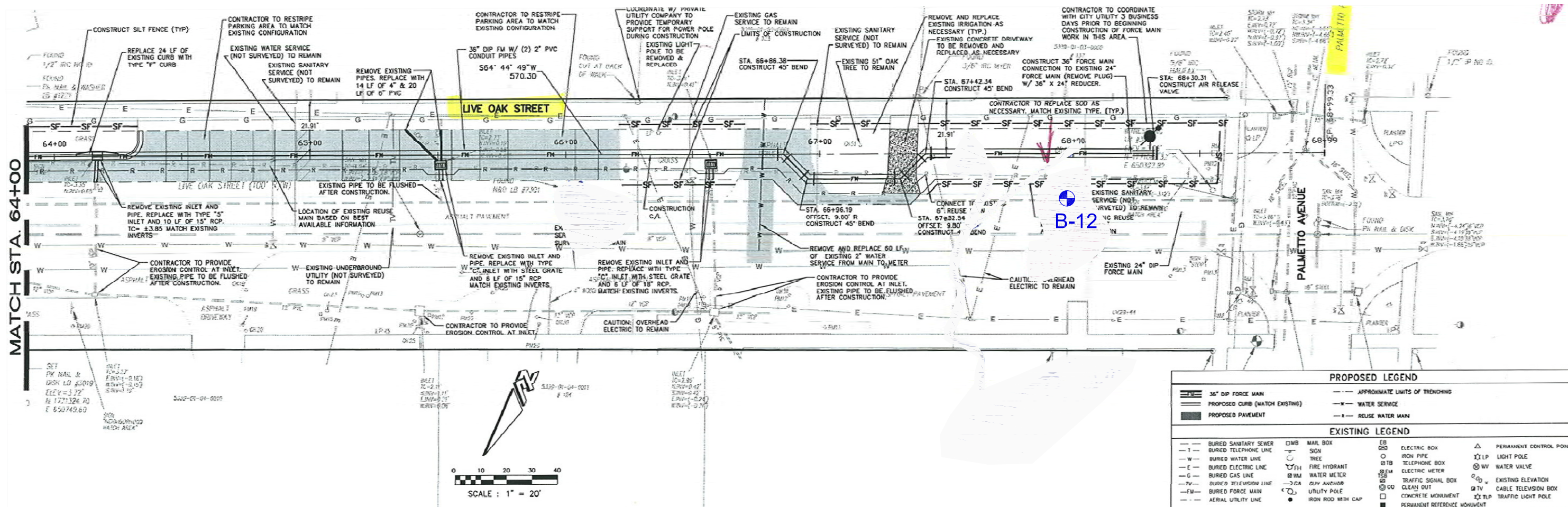
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APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING



PROJECT:		PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH		TITLE: <b>BORING LOCATION PLAN</b>	
DRAWN BY:	MKL	DATE:	04/26/11	PROJECT NO.:	0430.1100025.0000
CHECKED BY:	BP	DATE:	04/26/11	REPORT NO.:	118995
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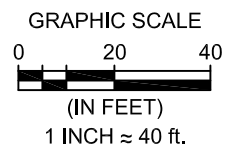




PROPOSED LEGEND			
	36" DIP FORCE MAIN		
	PROPOSED CURB (MATCH EXISTING)		
	PROPOSED PAVEMENT		
	APPROXIMATE LIMITS OF TRENCHING		
	WATER SERVICE		
	REUSE WATER MAIN		
EXISTING LEGEND			
	BURIED SANITARY SEWER		MAL BOX
	BURIED TELEPHONE LINE		TREE
	BURIED WATER LINE		FIRE HYDRANT
	BURIED ELECTRIC LINE		WATER METER
	BURIED GAS LINE		UTILITY ANCHOR
	BURIED TELEVISION LINE		UTILITY POLE
	BURIED FORCE MAIN		IRON ROD WITH CAP
	AERIAL UTILITY LINE		ELECTRIC BOX
	PERMANENT CONTROL POINT		IRON PIPE
	LIGHT POLE		TELEPHONE BOX
	WATER VALVE		ELECTRIC METER
	EXISTING ELEVATION		TRAFFIC SIGNAL BOX
	CABLE TELEVISION BOX		CLEAN OUT
	TRAFFIC LIGHT POLE		CONCRETE MONUMENT
	PERMANENT REFERENCE MONUMENT		

**LEGEND**

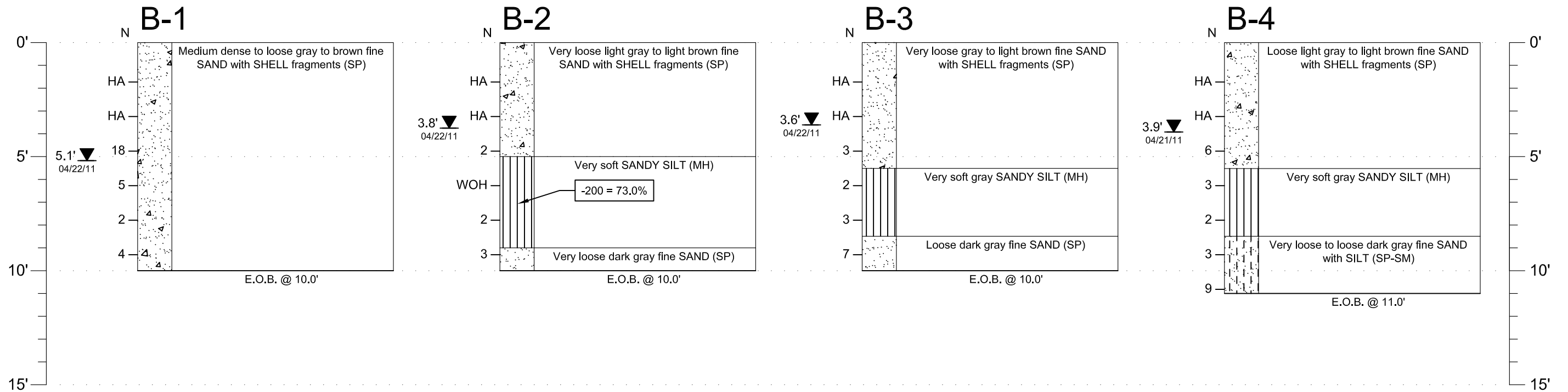
APPROXIMATE LOCATION OF STANDARD PENETRATION TEST (SPT) BORING

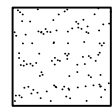
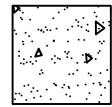
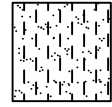
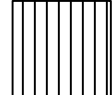


PROJECT:		PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH	
DRAWN BY:	MKL	DATE:	04/26/11
CHECKED BY:	BP	DATE:	04/26/11
PROJECT NO.:	0430.1100025.0000	REPORT NO.:	118995


TITLE:		BORING LOCATION PLAN	
SCALE:	1" ≈ 40'	PAGE/FIG. NO.:	A-1J





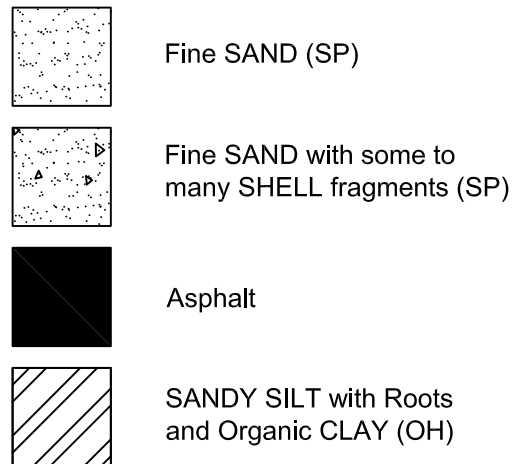
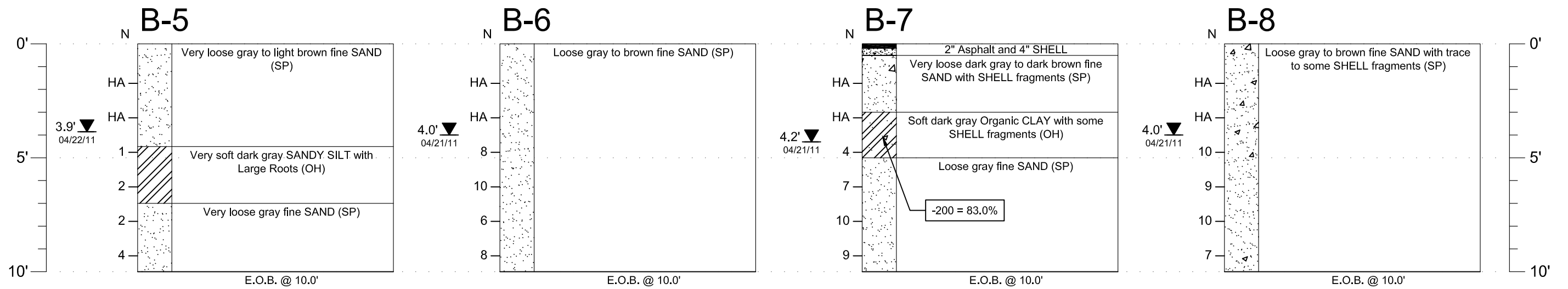
-  Fine SAND (SP)
-  Fine SAND with some to many SHELL fragments (SP)
-  Fine SAND with SILT (SP-SM)
-  SANDY SILT (MH)

**NOTES:**

-  Measured Groundwater Level at Time of Drilling
- (SP) Unified Soil Classification System
- EOB End of Boring
- 200 % Passing No. 200 Sieve



PROJECT: <b>PROPOSED 36-INCH FORCE MAIN          BEACH STREET          DAYTONA BEACH, FLORIDA          CITY OF DAYTONA BEACH</b>			TITLE: <b>SUBSURFACE PROFILE</b>		
DRAWN BY:	MKL	DATE:	05/02/11	PROJECT NO.:	0430.1100025.0000
CHECKED BY:	BP	DATE:	05/02/11	REPORT NO.:	118995
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				PAGE/FIG. NO.:	A-2

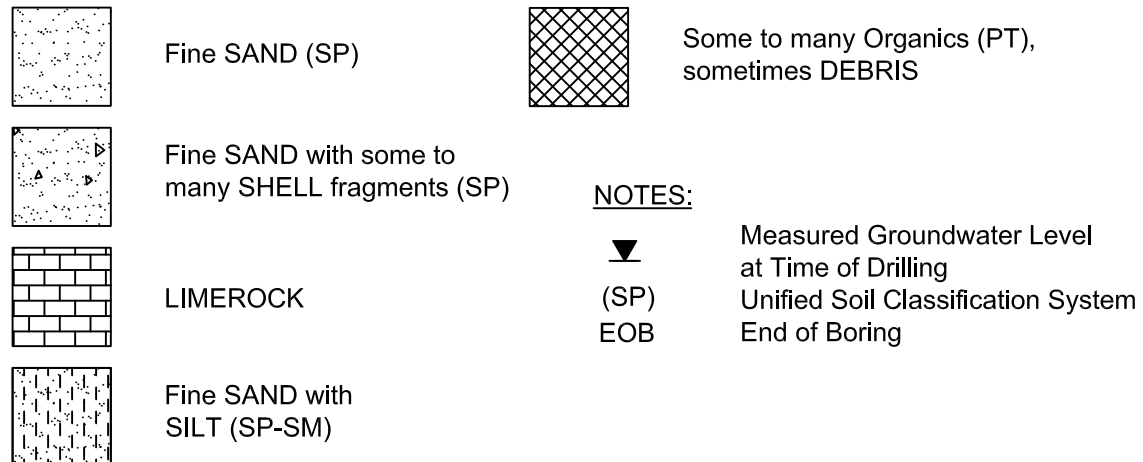
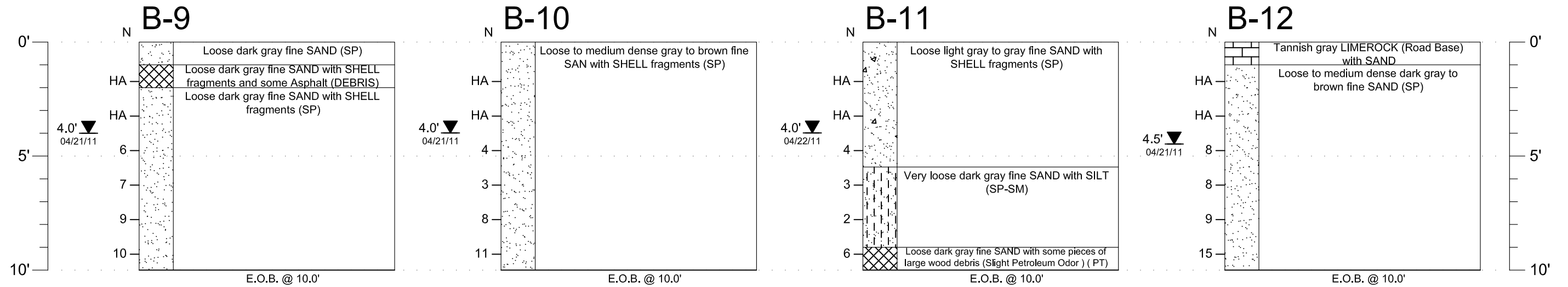


**NOTES:**

▼ Measured Groundwater Level at Time of Drilling  
 (SP) Unified Soil Classification System  
 EOB End of Boring  
 -200 % Passing No. 200 Sieve



PROJECT: PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH				TITLE: <b>SUBSURFACE PROFILE</b>	
DRAWN BY: MKL	DATE: 05/02/11	PROJECT NO.: 0430.1100025.0000	SCALE: NA (in feet)		PAGE/FIG. NO.: A-3
CHECKED BY: BP	DATE: 05/02/11	REPORT NO.: 118995			



<p><b>UNIVERSAL</b> ENGINEERING SCIENCES</p>	PROJECT: PROPOSED 36-INCH FORCE MAIN BEACH STREET DAYTONA BEACH, FLORIDA CITY OF DAYTONA BEACH			TITLE: <b>SUBSURFACE PROFILE</b>	
	DRAWN BY: MKL CHECKED BY: BP	DATE: 05/02/11 DATE: 05/02/11	PROJECT NO.: 0430.1100025.0000 REPORT NO.: 118995	SCALE: NA (in feet)	PAGE/FIG. NO.: <b>A-4</b>



SYMBOLS	
SYMBOL	DESCRIPTION
N	No. of blows of a 140-lb weight falling 30 inches required to drive standard spoon 1 foot.
WOR	Weight of Drill Rods
WOH	Weight of Drill Rods and Hammer
% REC	Percent Core Recovery from Rock Core Drilling
RQD	Rock Quality Designation
EOB	End Of Boring
BT	Boring Terminated
-200	Fines Content or % Passing No. 200 Sieve
MC	Moisture Content
LL	Liquid Limit
PI	Plasticity Index
K	Coefficient of Permeability
O.C.	Organic Content
∇	Estimated seasonal high groundwater level
▼	Measured groundwater level at time of drilling

UNIFIED CLASSIFICATION SYSTEM				
MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES	
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GP	Well-graded gravels and gravel-sand mixtures, little or no fines
			GM	Silty gravels, gravel-sand-silt mixtures
		SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW**
	SANDS WITH FINES		SP**	Well-graded sands and gravelly sands, little or no fines
	FINE-GRAINED SOILS 50% or more passes No. 200 sieve**	SILTS AND CLAYS Liquid limit 50% or less	SANDS WITH FINES	SM**
SC**				Clayey sands, sand-clay mixtures
SILTS AND CLAYS Liquid limit greater than 50%			ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
		OL	Organic silts and organic silty clays of low plasticity	
		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
		CH	Organic clays or high plasticity, fat clays	
SILTS AND CLAYS Liquid limit greater than 50%		OH	Organic clays of medium to high plasticity	
	PT	Peat, muck and other highly organic soils		

\* Based on the material passing the 3-in. (75 mm) sieve.  
\*\* Use dual symbol (such as, SP-SM and SP-SC) for soil with more than 5% but less than 12% passing through No. 200 sieve.

RELATIVE DENSITY (sand-silt)
Very Loose - Less Than 4 Blows/Ft.
Loose - 4 to 10 Blows/Ft.
Medium - 11 to 30 Blows/Ft.
Dense - 31 to 50 Blows/Ft.
Very Dense - More Than 50 Blows/Ft.

CONSISTENCY (clay)
Very Soft - Less than 2 Blows/Ft.
Soft - 2 to 4 Blows/Ft.
Medium - 5 to 8 Blows/Ft.
Stiff - 9 to 15 Blows/Ft.
Very Stiff - 16 to 30 Blows/Ft.
Hard - More Than 30 Blows/Ft.

RELATIVE HARDNESS (Limestone)
Soft - 100 Blows for more than 2"
Hard - 100 Blows for less than 2"

MODIFIERS
These modifiers provide our estimate of the amount of minor constituents (SILT or CLAY sized particles) in the soil sample.
Trace - 5% or less
With SILT or with CLAY - 6% to 11%
SILTY or CLAYEY - 12% to 30%
Very SILTY or Very CLAYEY - 31% to 50%
These modifiers provide our estimate of the amount of organic components in the soil sample.
Trace - 1% to 2%
Few - 3% to 4%
Some - 5% to 8%
Many - Greater than 8%
These modifiers provide our estimate of the amount of other components (Shell, Gravel, Etc.) in the soil sample
Trace - 5% or less
Few - 6% to 12%
Some - 13% to 30%
Many - 31% to 50%

**APPENDIX B**

**LABORATORY TESTING PROCEDURES**

## DESCRIPTION OF LABORATORY TESTING PROCEDURES

### **LABORATORY PERMEABILITY TEST**

The laboratory permeability test is a Falling Head Test that is performed on soil samples recovered from this site. The data recovered from this test are used to calculate Darcy's Coefficient of Permeability (k) of the soil.

### **WASH 200 TEST**

The Wash 200 test is performed by passing a representative soil sample over a No. 200 sieve and rinsing with water. The percentage of the soil grains passing this sieve is then calculated.

### **ORGANIC CONTENT TESTS**

The organic content test is performed by weighing a sample before and after placing in a high temperature oven which burns the organic material in the sample. The percent of organic material by weight is then calculated.

### **MOISTURE CONTENT DETERMINATION ASTM D-2216**

Moisture content is the ratio of the weight of water to the dry weight of soil. Moisture content is measured by drying a sample at 105 degrees Celsius. The moisture content is expressed as a percent of the oven dried soil mass.

### **ATTERBERG LIMITS**

The Atterberg Limits consist of the Liquid Limit (LL) and the Plastic Limit (PL). The LL and PL were determined in general accordance with the latest revision of ASTM D-4318. The LL is the water content of the material denoting the boundary between the liquid and plastic states. The PL is the water content denoting the boundary between the plastic and semi-solid states. The Plasticity Index (PI) is the range of water content over which a soil behaves plastically and is denoted numerically by as the difference between the LL and the PL. The water content of the sample tested was determined in general accordance with the latest revision of ASTM D-2216. The water content is defined as the ratio of "pore" or "free" water in a given mass of material to the mass of solid material particles.

### **CONSOLIDATION TESTING**

A single selected portion of the undisturbed sample was extruded from the 3-inch diameter sample tube for consolidation testing. The selected sample was trimmed and confined into a stainless steel disc having a diameter of 2.5 inches and a height of 1 inch. The disc was then "sandwiched" between 2 porous stones, saturated and subjected to incrementally increasing loads. The resulting deformation of the sample within the steel disc was measured using a micrometer gauge.

# **APPENDIX C**

## **GENERAL CONDITIONS CONSTRAINTS AND RESTRICTIONS AND IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT**

**Universal Engineering Sciences, Inc.**  
**GENERAL CONDITIONS**

**SECTION 1: RESPONSIBILITIES**

- 1.1 *Universal Engineering Sciences, Inc.*, heretofore referred to as the Consultant, has the responsibility for providing the services described under the Scope of Services section. The work is to be performed according to accepted standards of care and is to be completed in a timely manner. The term "Consultant" as used herein includes all of *Universal Engineering Sciences, Inc.*'s agents, employees, professional staff, and subcontractors.
- 1.2 The Client or a duly authorized representative is responsible for providing the Consultant with a clear understanding of the project nature and scope. The Client shall supply the Consultant with sufficient and adequate information, including, but not limited to, maps, site plans, reports, surveys and designs, to allow the Consultant to properly complete the specified services. The Client shall also communicate changes in the nature and scope of the project as soon as possible during performance of the work so that the changes can be incorporated into the work product.

**SECTION 2: STANDARD OF CARE**

- 2.1 Services performed by the Consultant under this Agreement are expected by the Client to be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Consultant's profession practicing contemporaneously under similar conditions in the locality of the project. No other warranty, express or implied, is made.
- 2.2 The Client recognizes that subsurface conditions may vary from those observed at locations where borings, surveys, or other explorations are made, and that site conditions may change with time. Data, interpretations, and recommendations by the Consultant will be based solely on information available to the Consultant at the time of service. The Consultant is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed.

**SECTION 3: SITE ACCESS AND SITE CONDITIONS**

- 3.1 Client will grant or obtain free access to the site for all equipment and personnel necessary for the Consultant to perform the work set forth in this Agreement. The Client will notify any and all possessors of the project site that Client has granted Consultant free access to the site. The Consultant will take reasonable precautions to minimize damage to the site, but it is understood by Client that, in the normal course of work, some damage may occur, and the correction of such damage is not part of this Agreement unless so specified in the Proposal.
- 3.2 The Client is responsible for the accuracy of locations for all subterranean structures and utilities. The Consultant will take reasonable precautions to avoid known subterranean structures, and the Client waives any claim against Consultant, and agrees to defend, indemnify, and hold Consultant harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, Client agrees to compensate Consultant for any time spent or expenses incurred by Consultant in defense of any such claim with compensation to be based upon Consultant's prevailing fee schedule and expense reimbursement policy.

**SECTION 4: SAMPLE OWNERSHIP AND DISPOSAL**

- 4.1 Soil or water samples obtained from the project during performance of the work shall remain the property of the Client.
- 4.2 The Consultant will dispose of or return to Client all remaining soils and rock samples 60 days after submission of report covering those samples. Further storage or transfer of samples can be made at Client's expense upon Client's prior written request.
- 4.3 Samples which are contaminated by petroleum products or other chemical waste will be returned to Client for treatment or disposal, consistent with all appropriate federal, state, or local regulations.

**SECTION 5: BILLING AND PAYMENT**

- 5.1 Consultant will submit invoices to Client monthly or upon completion of services. Invoices will show charges for different personnel and expense classifications.
- 5.2 Payment is due 30 days after presentation of invoice and is past due 31 days from invoice date. Client agrees to pay a finance charge of one and one-half percent (1 ½ %) per month, or the maximum rate allowed by law, on past due accounts.
- 5.3 If the Consultant incurs any expenses to collect overdue billings on invoices, the sums paid by the Consultant for reasonable attorneys' fees, court costs, Consultant's time, Consultant's expenses, and interest will be due and owing by the Client.

**SECTION 6: OWNERSHIP OF DOCUMENTS**

- 6.1 All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by the Consultant, as instruments of service, shall remain the property of the Consultant.
- 6.2 Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose.
- 6.3 The Consultant will retain all pertinent records relating to the services performed for a period of five years following submission of the report, during which period the records will be made available to the Client at all reasonable times.

**SECTION 7: DISCOVERY OF UNANTICIPATED HAZARDOUS MATERIALS**

- 7.1 Client warrants that a reasonable effort has been made to inform Consultant of known or suspected hazardous materials on or near the project site.
- 7.2 Under this agreement, the term hazardous materials include hazardous materials (40 CFR 172.01), hazardous wastes (40 CFR 261.2), hazardous substances (40 CFR 300.6), petroleum products, polychlorinated biphenyls, and asbestos.
- 7.3 Hazardous materials may exist at a site where there is no reason to believe they could or should be present. Consultant and Client agree that the



discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work. Consultant and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for Consultant to take immediate measures to protect health and safety. Client agrees to compensate Consultant for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous waste.

- 7.4 Consultant agrees to notify Client when unanticipated hazardous materials or suspected hazardous materials are encountered. Client agrees to make any disclosures required by law to the appropriate governing agencies. Client also agrees to hold Consultant harmless for any and all consequences of disclosures made by Consultant which are required by governing law. In the event the project site is not owned by Client, Client recognizes that it is the Client's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.
- 7.5 Notwithstanding any other provision of the Agreement, Client waives any claim against Consultant, and to the maximum extent permitted by law, agrees to defend, indemnify, and save Consultant harmless from any claim, liability, and/or defense costs for injury or loss arising from Consultant's discovery of unanticipated hazardous materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value. Client will be responsible for ultimate disposal of any samples secured by the Consultant which are found to be contaminated.

#### **SECTION 8: RISK ALLOCATION**

- 8.1 Client agrees that Consultant's liability for any damage on account of any error, omission or other professional negligence will be limited to a sum not to exceed \$50,000 or Consultant's fee, whichever is greater. Client agrees that the foregoing limits of liability extend to all of consultant's employees and professionals who perform any services for Client. If Client prefers to have higher limits on professional liability, Consultant agrees to increase the limits up to a maximum of \$1,000,000.00 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of four percent of the total fee, or \$400.00, whichever is greater. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.

#### **SECTION 9: INSURANCE**

- 9.1 The Consultant represents and warrants that it and its agents, staff and Consultants employed by it, is and are protected by worker's compensation insurance and that Consultant has such coverage under public liability and property damage insurance policies which the Consultant deems to be adequate. Certificates for all such policies of insurance shall be provided to Client upon request in writing. Within the limits and conditions of such insurance, Consultant agrees to indemnify and save Client harmless from and against loss, damage, or liability arising from negligent acts by Consultant, its agents, staff, and consultants employed by it. The Consultant shall not be responsible for any loss, damage or liability beyond the amounts, limits, and conditions of such insurance or the limits described in Section 8, whichever is less. The Client agrees to defend, indemnify and save Consultant harmless for loss, damage or liability arising from acts by Client, Client's agent, staff, and other consultants employed by Client.

#### **SECTION 10: DISPUTE RESOLUTION**

- 10.1 All claims, disputes, and other matters in controversy between Consultant and Client arising out of or in any way related to this Agreement will be submitted to alternative dispute resolution (ADR) such as mediation and/or arbitration, before and as a condition precedent to other remedies provided by law.
- 10.2 If a dispute at law arises related to the services provided under this Agreement and that dispute requires litigation instead of ADR as provided above, then:
- (a) the claim will be brought and tried in judicial jurisdiction of the court of the county where Consultant's principal place of business is located and Client waives the right to remove the action to any other county or judicial jurisdiction, and
  - (b) The prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, attorneys' fees, and other claim related expenses.

#### **SECTION 11: TERMINATION**

- 11.1 This agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, Consultant shall be paid for services performed to the termination notice date plus reasonable termination expenses.
- 11.2 In the event of termination, or suspension for more than three (3) months, prior to completion of all reports contemplated by the Agreement, Consultant may complete such analyses and records as are necessary to complete his files and may also complete a report on the services performed to the date of notice of termination or suspension. The expense of termination or suspension shall include all direct costs of Consultant in completing such analyses, records and reports.

#### **SECTION 12: ASSIGNS**

- 12.1 Neither the Client nor the Consultant may delegate, assign, sublet or transfer his duties or interest in this Agreement without the written consent of the other party.

#### **SECTION 13. GOVERNING LAW AND SURVIVAL**

- 13.1 The laws of the State of Florida will govern the validity of these Terms, their interpretation and performance.
- 13.2 If any of the provisions contained in this Agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this Agreement for any cause.

*Rev. 03/10/11*

## CONSTRAINTS AND RESTRICTIONS

### **WARRANTY**

Universal Engineering Sciences has prepared this report for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

### **UNANTICIPATED SOIL CONDITIONS**

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

### **CHANGED CONDITIONS**

We recommend that the specifications for the project require that the contractor immediately notify Universal Engineering Sciences, as well as the owner, when subsurface conditions are encountered that are different from those present in this report.

No claim by the contractor for any conditions differing from those anticipated in the plans, specifications, and those found in this report, should be allowed unless the contractor notifies the owner and Universal Engineering Sciences of such changed conditions. Further, we recommend that all foundation work and site improvements be observed by a representative of Universal Engineering Sciences to monitor field conditions and changes, to verify design assumptions and to evaluate and recommend any appropriate modifications to this report.

### **MISINTERPRETATION OF SOIL ENGINEERING REPORT**

Universal Engineering Sciences is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If the conclusions or recommendations based upon the data presented are made by others, those conclusions or recommendations are not the responsibility of Universal Engineering Sciences.

### **CHANGED STRUCTURE OR LOCATION**

This report was prepared in order to aid in the evaluation of this project and to assist the architect or engineer in the design of this project. If any changes in the design or location of the structure as outlined in this report are planned, or if any structures are included or added that are not discussed in the report, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions modified or approved by Universal Engineering Sciences.

### **USE OF REPORT BY BIDDERS**

Bidders who are examining the report prior to submission of a bid are cautioned that this report was prepared as an aid to the designers of the project and it may affect actual construction operations.

Bidders are urged to make their own soil borings, test pits, test caissons or other investigations to determine those conditions that may affect construction operations. Universal Engineering Sciences cannot be responsible for any interpretations made from this report or the attached boring logs with regard to their adequacy in reflecting subsurface conditions which will affect construction operations.

### **STRATA CHANGES**

Strata changes are indicated by a definite line on the boring logs which accompany this report. However, the actual change in the ground may be more gradual. Where changes occur between soil samples, the location of the change must necessarily be estimated using all available information and may not be shown at the exact depth.

### **OBSERVATIONS DURING DRILLING**

Attempts are made to detect and/or identify occurrences during drilling and sampling, such as: water level, boulders, zones of lost circulation, relative ease or resistance to drilling progress, unusual sample recovery, variation of driving resistance, obstructions, etc.; however, lack of mention does not preclude their presence.

### **WATER LEVELS**

Water level readings have been made in the drill holes during drilling and they indicate normally occurring conditions. Water levels may not have been stabilized at the last reading. This data has been reviewed and interpretations made in this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, tides, and other factors not evident at the time measurements were made and reported. Since the probability of such variations is anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based upon such assumptions of variations.

### **LOCATION OF BURIED OBJECTS**

All users of this report are cautioned that there was no requirement for Universal Engineering Sciences to attempt to locate any man-made buried objects during the course of this exploration and that no attempt was made by Universal Engineering Sciences to locate any such buried objects. Universal Engineering Sciences cannot be responsible for any buried man-made objects which are subsequently encountered during construction that are not discussed within the text of this report.

### **TIME**

This report reflects the soil conditions at the time of investigation. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.

# Important Information About Your Geotechnical Engineering Report

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*The following information is provided to help you manage your risks.*

## **Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects**

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

## **Read the Full Report**

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## **A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors**

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## **Subsurface Conditions Can Change**

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## **Most Geotechnical Findings Are Professional Opinions**

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## **A Report's Recommendations Are *Not* Final**

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

### **A Geotechnical Engineering Report Is Subject to Misinterpretation**

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Contractors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Geoenvironmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.*** ***Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

### **Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance**

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.



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SECTION TWO:  
BEACH STREET AT FAIRVIEW  
BACKFLOW PREVENTERS 2 THRU 5

( 6545-02 )

## TECHNICAL SPECIFICATIONS

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PROFESSIONAL ENGINEER CERTIFICATE

I hereby certify that I am a registered professional engineer in the State of Florida practicing with CH2M HILL, Inc., a corporation, authorized to operate as an engineering business, FEID No. 59-0918189, by the State of Florida, Department of Professional Regulation, Board of Professional Engineers, and that I have reviewed and approved the Technical Specifications for the subject project:

Project: Beach Street Backflow Preventers  
Backflow Preventer Sites 2-5  
Utilities Project No. 6545-02

Location: City of Daytona Beach, FL

Client: City of Daytona Beach Utilities Department

These Supplemental Conditions, Special Provisions and Technical Provisions support the Construction Plans for the construction of four backflow preventers in the storm sewer system of Beach Street and associated appurtenances. We acknowledge that the procedures and references used to develop these documents are standard to the professional practice of civil, electrical and instrumentation & control engineering as applied through professional judgment and experience.

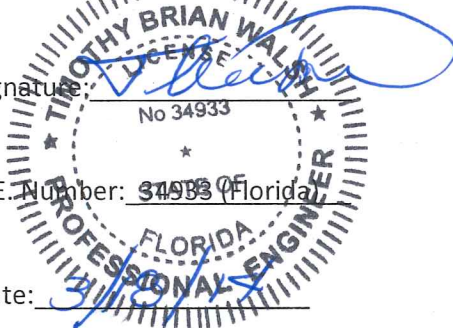
Civil Engineering

Name: Timothy B. Walsh, P.E.

Signature:

P.E. Number: 34933 Florida

Date: 5/18/18



**SECTION 01010**  
**SUMMARY OF WORK**

---

**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

Work consists of installing four (4) backflow preventers for the storm sewer systems from Loomis Avenue to Orange Avenue along Beach Street.

The secondary work will include maintenance of traffic and all other ancillary construction support services including coordination with other facility and property owners within and adjacent to the project site that are affected by constructions activities and the restoration and or replacement of all improvements above, on and below ground that are disturbed by construction activities. All work, materials, means and methods involved in the construction work shall be acceptable to the CITY and in accordance with the CITY Utilities Department Standard Details (latest edition and amendments), CITY Specifications and the applicable sections of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition, and the Florida Department of Transportation Design Standards, 2012/2013 edition.

**A. REQUIRED NOTICES TO AGENCIES AND PUBLIC:**

The CONTRACTOR shall adequately inform in advance the affected business, property owners and utility customers of scheduled temporary utility service disruptions and changes in access. CONTRACTOR shall provide alternative accommodations when required by CITY.

**B. SALVAGED MATERIALS:**

Unless otherwise noted in the contract, materials, equipment or supplies that are removed or that are no longer needed as a result of the contract work will become the property of the CONTRACTOR and shall be removed from the project and disposed of by the CONTRACTOR in areas provided by the CONTRACTOR.

**PART 2 PRODUCTS**

(Not Applicable, General Conditions may apply)



### **PART 3 EXECUTION**

The CONTRACTOR shall be responsible for reviewing the site conditions, reviewing the Bid Documents, verifying the Summary of Quantities and Bid Schedule and the inclusion of all items and costs necessary to complete the work prior to preparing and submitting a balanced and responsive bid.

**END OF SECTION**

**SECTION 01014  
MAINTENANCE OF OPERATIONS**

---

**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A.** This Section sets forth the requirements for scheduling and performing the work to keep existing essential facilities in continuous dependable operation.

**1.2 GENERAL CONSTRAINTS**

- A.** The CONTRACTOR shall keep existing essential facilities in operation at the performance levels specified unless otherwise specifically permitted in these specifications or approved by the CITY in writing. Coordinate any system shutdowns with the CITY sufficiently in advance to provide alternative service. Allowable shutdown times will be at the CITY's discretion.
- B.** Any temporary work, facilities, roads, walks, protection of existing structures, piping, blind flanges, valves, equipment, etc. that may be required within the CONTRACTOR'S work limits to maintain continuous and dependable operation of existing systems shall be furnished and maintained by the CONTRACTOR at no extra cost to the CITY.
- C.** The CONTRACTOR shall schedule the work in such a manner so that all existing systems are maintained in continuous operation unless otherwise directed by CITY. All short-term system or partial system shutdowns shall be approved in writing by the CITY. If, in the opinion of the CITY/ENGINEER, a shutdown is not required in order for the CONTRACTOR to perform the work, the CONTRACTOR shall utilize alternative methods to accomplish the work. CITY shall be provided a minimum of thirty (30) days notice of CONTRACTOR'S need for any system shutdown.
- D.** Required shutdowns shall not begin until all materials are on-hand, pre-assembled, as possible, and ready for installation. Upon commencement of the shutdown period the CONTRACTOR shall proceed with the work continuously, start to finish, until the work is completed and the system is tested, cleared for service, and ready for operation. If the CONTRACTOR completes all required work before the specified shutdown period has ended the CITY may immediately place the system back in service.
- F.** The CITY reserves the right to cancel scheduled shutdowns if conditions warrant. Delays to the CONTRACTOR caused by cancellations will be considered in evaluating requests for a time extension. They will not be considered an entitlement to additional compensation. However compensation may be considered at CITY's sole discretion.

### **1.3 SUBMITTALS**

A. Submit a detailed schedule for and process description of proposed testing.

#### **PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

#### **PART 3 – EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01025  
MEASUREMENT AND PAYMENT**

---

**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

A. This Section sets forth supplemental measurement and payment conditions.

**1.2 REFERENCE**

B. The General Conditions, the Summary of Quantities and the Bid Schedule.

**1.3 TYPICAL PAYMENT ITEM COSTS**

A. No separate payment will be made for the following items. The cost of such work shall be included in the unit price of applicable pay items listed in the Bid Schedule unless otherwise noted in the construction plans:

1. Clearing and grubbing including removal and disposal of all above and below ground improvements such as but not limited to trees, brush, residential commercial and bridge structures, septic tanks and drain-fields, roadway pavement and concrete, drainage and utility systems, etc... unless otherwise specified.
2. Trench and roadway excavation, including rock and cemented coquina excavation and storage for City removal, excavation and removal of unsuitable soils and unsuitable materials of any nature unless otherwise specified.
3. Structure excavation including rock and cemented coquina excavation and disposal, excavation and disposal of unsuitable materials of any nature except as otherwise specified.
4. Dewatering and disposal of surplus water.
5. Structural fill, backfill, including furnishing, placement, compaction and final grading of suitable fill material, pipe bedding and compacted granular material.
6. The temporary removal and replacement of fences and walls.
7. Foundation and borrow materials, except as otherwise specified.
8. Shoring, sheeting and worksite safety.

**1.3 SPECIAL BID/PAY ITEM MEASUREMENT & PAYMENT LIST**

- A. The following Special Bid/Pay Item Measurement and Payment conditions apply.
1. The basis of payment for this work shall be upon the quantities and unit prices listed in the Bid Schedule.
  2. The unit prices shall include all labor, material and equipment necessary to completely construct and restore the work area to its original or improved condition as shown on the plans and/or interpreted as the design intent by the engineer.
  3. All items of work necessary to complete the project but not specifically identified in the individual pay items listed are considered as incidental to the construction and are included in the contract unit price.
  4. As-builts shall be prepared as per City of Daytona Beach standard details (latest version).
  5. All required permits are included in the lump sum price for mobilization, including but not limited to FDEP dewatering permit, CODB building permit, NPDES, etc. And all local, state and federal permits.
  6. As-Builts Drawings—Final Closeout shall be paid upon satisfactory submittal of all four sites. Proportionate payment for individual sites shall not be allowed.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

(Not Applicable, General Conditions may apply)

**PART 3 – EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01026**  
**SCHEDULE OF VALUES & PAYMENT APPLICATIONS**

---

**PART 1- GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A.** This Section specifies preparation and submittal requirements for Pay Applications and a Schedule of Values.

**1.2 SCHEDULE OF VALUES (FOR LUMP SUM ITEM CONTRACTS ONLY)**

- A.** Coordination: Coordinate preparation of the Schedule of Values for each lump sum item with preparation of CONTRACTOR'S Construction Schedule.

- 1.** Correlate line items in the Schedule of Values with other required administrative forms and schedules, including Application for Payment forms with Continuation Sheets, Submittals Schedule and CONTRACTOR'S Construction Schedule.
- 2.** Submit the Schedule of Values to CITY'S ARCHITECT AND/ OR ENGINEER at earliest possible date but no later than seven days before the date scheduled for submittal of initial Applications for Payment.
- 3.** Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.

- B.** Format and Content: Use the Bid Schedule as a guide to establish line items for the Schedule of Values for each lump sum item. Provide at least one line item for each Specification Section.

- 1.** Identification: Include the following Project identification on the Schedule of Values or unit price pay item Bid Schedule , whichever is applicable, that accompanies the Pay Application:
  - a.** Project name and location & Purchase Order Number
  - b.** Name of CITY project manager.
  - c.** CITY's project number.
  - d.** CONTRACTOR's name and address.
  - e.** Date of submittal.
- 2.** Submit draft of AIA Document G703 Continuation Sheets.
- 3.** Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Pay Applications and progress reports. Coordinate with the Project Bid Schedule. Provide several line items for principal subcontract amounts, where appropriate. Include separate line items under required principal subcontracts for operation and maintenance manuals, punch list activities, Project Record Documents, and demonstration and training.

4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the Schedule of Values for each part of the Work where Pay Applications may include materials or equipment purchased or fabricated and stored, but not yet installed.
6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the work.
7. Allowances: Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
8. Each item in the Schedule of Values and Pay Applications shall be complete and include the total cost for each item.
  - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at CONTRACTOR's option.
9. Schedule Updating: On Lump Sum Item Contracts update and resubmit the Schedule of Values before the next Pay Applications when Change Orders or Construction Change Directives result in a change in the Contract Sum.

### **1.3 PAY APPLICATIONS**

- A. Each Pay Application shall be consistent with previous applications and payments as certified by ARCHITECT/ ENGINEER and or CITY.
  1. CONTRACTOR to prepare Pay Application after confirming quantities or percent of work completed with CITY's construction field representative in draft form.
- B. Pay Application Work Periods: The period of construction work covered by each Application for Payment is the period indicated and agreed to on the Pay Application.
- C. Pay Application Submittal Times: Progress payments shall be submitted to CITY on average at one per thirty day period.
- D. Pay Application Forms: Use AIA Document G702/CMa and AIA Document G703 Continuation Sheets or equivalents as form for Applications for Payment.
- E. Application Preparation: A company logo should be at the top. Complete every entry on form. Place the CITY Purchase Order number on the form near the top. Notarize and execute by a person authorized to sign legal documents on behalf of CONTRACTOR. CITY will return incomplete applications without action.



1. Entries shall match data on the Bid Schedule and Construction Schedule and if it is a lump sum contract item, the Schedule of Values. Provide updated schedules if revisions were made.
  2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
- F.** Transmittal: Submit two (2) signed and notarized original copies of each Pay Application to CITY by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application to include CITY's Minority and Women Owned Business Enterprise Usage form with each application.
- G.** Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Pay Application include the following if applicable to the work.:
1. List of SUBCONTRACTORS.
  2. Schedule of Values (for lump sum contract items).
  3. CONTRACTOR's Construction Schedule (preliminary if not final).
  4. Bid Schedule of unit prices.
  5. Submittals Schedule (preliminary if not final).
  6. List of CONTRACTOR's principal consultants.
  7. Copies of building permits.
  8. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
  9. Initial progress report.
- H.** Pay Application at Substantial Completion: After issuing the Certificate of Substantial Completion, submit a Pay Application showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting that the Work is substantially complete
  2. This application shall reflect Certificates of Partial Substantial Completion issued previously for CITY occupancy of designated portions of the Work.
- I.** Final Pay Application: Submit final Pay Application in accordance with the requirements of the General Conditions, and may also include the following:
1. Updated final statement, accounting for final changes to the Contract Sum.
  2. Evidence that claims have been settled.
  3. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when CITY took possession of and assumed responsibility for corresponding elements of the Work.
  4. Final, liquidated damages settlement statement.

**PART 2 - PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01200**  
**PROJECT MEETINGS AND VIDEO**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets for the requirements and responsibilities for conducting project meetings and the videoing of the project area to document the pre-construction conditions.

**1.2 PRE-CONSTRUCTION CONFERENCE**

- A. A pre-construction conference will be held prior to the commencement of work.

**1.3 PROGRESS MEETINGS**

- A. Regular weekly progress meetings to be scheduled by CITY shall be held during the construction period at which the CONTRACTOR shall submit updated progress schedules, discuss significant events that have or will affect the progress and discuss the work to occur in the upcoming work period.

**1.4 INSTALLATION / DEMOLITION & SPECIAL EVENT CONFERENCES**

- A. Well in advance of the installation/demolition of every major unit of work or special event which requires coordination with other work, CONTRACTOR will schedule a meeting with CITY, installers and representatives of manufacturers and fabricators, utility owners and or facility owners who are involved in or affected by the unit of work, and in its coordination or integration with other work which has preceded or will follow. Advise the CITY three (3) working days in advance of scheduled meeting dates. At each meeting review the progress of other work and preparations for the particular work under consideration, including the requirements of the contract documents, options, related change orders, purchases, deliveries, shop drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety, inspection and testing requirements, required performance results, recording requirements, and protection. Record the significant discussions of each conference along with the final plan of action. Distribute record of meeting promptly to everyone concerned.

## **1.5 PROJECT VIDEO**

- A.** Video all improvements within and adjacent to the project rights of way as well as all line work, water, sanitary sewer, drainage, etc. CONTRACTOR shall make provisions at his expense for DVD video of all line work just prior to construction, and during construction. The video will show pertinent physical features along the line of construction including significant trees and buildings. The purpose of the video is to determine any damage to private or public property during construction. A copy of the video and photographs shall be provided to the CITY.

### **PART 2 - PRODUCTS**

(Not Applicable, General Conditions may apply)

### **PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01300**  
**GENERAL SUBMITTALS**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets forth the general requirements for various types of submittals including but not necessarily limited to product and process data, samples and miscellaneous work.

**1.2 SUBMITTALS**

Submittals shall be clear and legible, printed or typed. Submittals received that are not so, shall be returned to be resubmitted when in legible form.

1. Product data includes standard printed information on materials, products and systems, not custom-prepared for this project, other than the designation of selections from available choices.
2. Samples include both fabricated and not fabricated physical examples of materials, products and work: both as complete units and as smaller portions of units of work, either for limited visual inspection or (where indicated) for more detailed testing and analysis.
3. Miscellaneous submittals related directly to the work (non-administrative) include warranties, guarantees, maintenance agreements, project photographs/videos, survey data and reports, physical work records, statements of applicability, quality testing and certifying reports, copies of industry standards, record drawings, operating and maintenance materials, overrun stock, security/protection/safety keys and similar information, devices and materials applicable to the work and not defined as shop drawings, product data or samples.
4. Five (5) copies of each submittal shall be submitted with (3 copies returned) unless otherwise approved.

### 1.3 GENERAL SUBMITTAL REQUIREMENTS

- A. Coordination and Sequencing: Coordinate the preparation and processing of submittals with the performance of the work so that work will not be delayed by submittals. Coordinate and sequence different categories of submittals for the same work, and for interfacing units of work, so that one will not be delayed for coordination with another. No extension of time will be allowed because of failure to properly coordinate and sequence submittals. Do not proceed with purchasing, fabrication and delivery of work related to a submittal until submittal procedure has been successfully completed.
  
- B. Preparation of Submittals: Provide permanent marking on each submittal to identify it by project, date, CONTRACTOR, sub-CONTRACTOR, submittal name and similar information to distinguish it from other submittals. **Show CONTRACTOR's approval marking and provide space for review marking by CITY's Representative. This will reduce the time required to re-stamp each submittal with the review stamp of the CITY.** Package each submittal appropriately for transmittal and handling. Submittals that are received directly from sources other than through the CONTRACTOR's office will be returned without review. **The following statement will be considered having been attached to each submittal even though the statement has not been physically placed on the submittal:**

Engineer's review is for general conformance of the design concept and contract documents. Markings or comments shall not be construed as relieving the CONTRACTOR from compliance with the project drawings and specifications nor departures. The CONTRACTOR remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing his work in a safe manner.  
CITY OF DAYTONA BEACH

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

Circle: No exceptions taken    Rejected    Note Markings

Comments Attached                      Resubmit with Modifications

**Approved submittals will have the CITY/ ENGINEER signature as appropriate for responsibility.** Should a supplier demand more formal approval the CONTRACTOR can request the traditional approval which will include a red stamped statement on each sheet which includes limitations of responsibility.

**PART 2 - PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01340**  
**SHOP DRAWING PROCEDURES**

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**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

This Section sets for the Shop Drawing submittal procedures shall conform to the general requirements of Section 01300, and as described in this Section.

**PART 2 – PRODUCTS**

- A.** CONTRACTOR shall initially submit to CITY /ENGINEER a minimum of five(5) copies of all submittals that are on 11-inch by 17-inch or smaller sheets (no less than 8 1/2-inch x 11-inch), and one unfolded mylar and 2 prints made from that mylar for all submittals on sheets larger than 11-inch by 17-inch.

**PART 3– EXECUTION**

- A.** Shop drawings include custom-prepared data of all forms including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns reports, calculations, instructions, measurements and similar information not in standard printed form applicable to other projects.
- B.** Submit Shop Drawings to: CITY /ENGINEER as directed at the Pre-construction meeting .
- C.** A letter of transmittal shall accompany each submittal. If data for more than one Section of the Specifications is submitted, a separate transmittal letter shall accompany the data submitted for each Section
- D.** At the beginning of each letter of transmittal provide a reference heading indicating the following:
1. CITY and Department
  2. Project Name
  3. Contract Number & Project Number
  4. Transmittal Number
  5. Section Number



- E.** If a Shop Drawing deviates from the requirements of the Contract Documents, CONTRACTOR shall specifically note each variation in his letter of transmittal.
- F.** All Shop Drawings submitted for approval shall have a title block with complete identifying information satisfactory to CITY and or Engineer of Record.
- G.** All Shop Drawings submitted shall bear the stamp of approval and signature of CONTRACTOR as evidence that they have been reviewed by CONTRACTOR. Submittals without this stamp of approval will not be reviewed by CITY/ENGINEER and will be returned to CONTRACTOR. CONTRACTOR'S stamp shall contain the following minimum information:

Project Name/ CODB Contract No.: \_\_\_\_\_

CONTRACTOR'S Name: \_\_\_\_\_

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

-----Reference-----

Item: \_\_\_\_\_

Specifications: \_\_\_\_\_

Section: \_\_\_\_\_

Page No.: \_\_\_\_\_

Paragraph No.: \_\_\_\_\_

Drawing No.: \_\_\_\_\_ of \_\_\_\_\_

Location: \_\_\_\_\_

Submittal No.: \_\_\_\_\_

Approved By: \_\_\_\_\_

- H.** A number shall be assigned to each submittal by CONTRACTOR starting with No. 1 and thence numbered consecutively. Re-submittals shall be identified by the original submittal number followed by the suffix "A" for the first re-submittal the suffix "B" for the second re-submittal, etc.
- I.** For CITY/ENGINEER review purposes the following statement will be considered having been attached to each submittal even if the statement has not been physically placed on the submittal:

Engineer's review is for general conformance of the design concept and contract documents. Markings or comments shall not be construed as relieving the CONTRACTOR from compliance with the project drawings and specifications nor departures. The CONTRACTOR remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing his work in a safe manner.  
CITY OF DAYTONA BEACH

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

Circle:    Approved as submitted    Rejected    Note Markings

Comments Attached                      Resubmit with Modifications

Approved submittals will have the CITY/ ENGINEER signature as appropriate for responsibility. For shop drawings approved with comments there will only be initials with the reviewer's comments: "Approved with following comments: \_(List)\_"

After CITY /ENGINEER completes the review, the Shop Drawings will be marked with one of the following notations:

1. Approved (approval may include comments)
2. Rejected
3. Revise and Resubmit

- J.** If a submittal is acceptable, it will be marked "Approved" or "Approved as Corrected". Three (3) prints or copies of the submittal will be returned to CONTRACTOR unless otherwise agreed upon.
- K.** Upon return of a submittal marked "Approved" which may include comments", CONTRACTOR may order, ship or fabricate the materials included on the submittal, provided it is in accordance with the corrections indicated. Contractor must address any comments in writing BEFORE Contractor may order, ship or fabricate any materials.

- L.** If a Shop Drawing is approved with extensive corrections or corrections affecting other drawings or work, CITY/ ENGINEER may require that CONTRACTOR make the corrections indicated thereon and resubmit the Drawings for record purposes. Such drawings will be noted to re-submit.
- M.** If a submittal is unacceptable, three (3) copies will be returned to CONTRACTOR with one of the following notations:
  - 1.** "Revise and Resubmit"
  - 2.** "Rejected"
- N.** Upon return of a submittal marked "Revise and Resubmit", CONTRACTOR shall make the corrections indicated and repeat the initial approval procedure. The "Rejected" notation is used to indicate material or equipment that is not acceptable. Upon return of a submittal so marked, CONTRACTOR shall repeat the initial approval procedure utilizing acceptable material or equipment.
- O.** Shop Drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for the time required to make delivery of material or equipment after data covering such is approved.
- P.** It is CONTRACTOR's responsibility to review submittals made by his suppliers and SUBCONTRACTORS for conformance to the contract requirements and to ensure that they include the required information before transmitting them to CITY/ENGINEER for review.
- Q.** CONTRACTOR shall furnish required submittals with complete information and accuracy in order to achieve required approval of an item within three submittals. All costs to CITY/ENGINEER involved with subsequent submittals of Shop Drawings will be back charged to CONTRACTOR, at the rate of 3.0 times direct technical labor cost, by deducting such costs from payments due CONTRACTOR for work completed. In the event that CONTRACTOR requests a substitution for a previously approved item, the CITY/ENGINEER's costs for the review and approval of the substitution may be back-charged to CONTRACTOR unless the need for such substitution is beyond the control of CONTRACTOR.
- R.** Close-out Submittals: Refer to General Conditions and Section 01700 for related requirements on the submittal of closeout information, materials, tools, and similar items.

**END OF SECTION**

**SECTION 01500**  
**TEMPORARY UTILITY FACILITIES & PROJECT SIGN**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This section specifies the minimum requirements for temporary utility facilities to be brought to and operated at the project site in conjunction with the project work. The providing and operation of temporary utilities facilities is the CONTRACTOR's sole responsibility, and is not limited by the requirements of this Section.
- B. The types of utility service facilities required for temporary use at the project site include: Potable and reclaimed water, sanitary sewer, stormwater drainage/run-off control facilities, electric power service, Information Technology communications service and telephone service. Other site specific services may be required for prosecution of the work.
- C. The Contractor shall construct a sign having an area of approximately 32-square feet identifying the project, officials representing the Owner, the Engineers, etc. The sign shall be erected in a location selected by the Engineer. The Contractor shall maintain the sign throughout the duration of the project. The sign shall be worded as directed by the Engineer.

**1.2 SUBMITTALS**

- A. Shop drawings of the artwork of the project sign and means of mounting and erection shall be provided at the Pre-Construction Meeting.

**1.3 QUALITY ASSURANCE**

- A. Comply with local, state and federal regulatory requirements and utility company regulations and recommendations for the construction of temporary utility services; including (but not necessarily limited to); code compliance, permits, inspections, testing, and health and safety compliance.
- B. Comply with pollution and environmental protection regulations for the use of water and other services, and for the discharge of wastes and stormwater drainage from the project site. Comply with all environmental impact commitments of record that have been made by the CITY or previous owners of the site in securing approval to proceed with the construction of the project.

- C. CONTRACTOR must control turbidity in rivers or canals so that it does not exceed established background turbidity by more than 50 Jackson Units at a distance greater than 100 feet from the point of work. This shall be done by the use of a “diaper” or floating or anchored turbidity barriers or other methods approved by the environmental agency or CITY.
- D. CONTRACTOR must comply with the special requirements for DIVERSIONS, DEWATERING PERMITS and MONITORING as described in 3.3.E, 3.3.F and 3.3.G of this Section 01500. CONTRACTOR shall verify the amount applicable to this project prior to submitting his bid, shall not be entitled to any adjustment in the Contract Price as a result of any change in the permit fees.
- E. Safety compliance at a minimum shall be in accordance with the “Manual of Accident Prevention in Construction” by AGC or other similar accident prevention organization.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

**3.3 OPERATIONS**

- A. Inspections: Prior to placing temporary utility services into use, inspect and test each service and arrange for governing authorities required inspection and test, and obtain required certifications and permits for use thereof.
- B. Supervision: Enforce strict discipline in the use of utility services. Limit availability to essential uses, so as to minimize wastes. Do not allow the installations to be abused or endangered.
- C. Protection: Prevent water filled piping from freezing, by ground cover or insulation or by keeping drained, or by temporary heating. Maintain distinct markers for underground lines, and protect from damage during excavating operations.

- D. Public Safety: The CONTRACTOR shall at all times so conduct his work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property, in a manner satisfactory to the CITY. **No road or street shall be closed to the public, except with the prior permission of the CITY and proper governmental authority. (Contact the CITY to complete special form so adequate public announcement can occur.)** Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to insure that sidewalks are usable and A.D.A compliant and that all gutters, sewer inlets, drainage ditches, and irrigation ditches are properly functioning. CONTRACTOR shall provide adequate drainage facilities, tie-downs, or other preventative measures for the work to protect the CITY and other properties from damage that occurs during severe weather events. **At first notice of a “SPECIAL WEATHER ALERT” the CONTRACTOR is hereby required to make the works area as safe as possible. This may mean filling excavations and removing all equipment at no extra cost to the CITY. The use of barricades during excessive winds should be avoided by installing in-the-ground mounted construction activity warning signs.**
- E. Flow Diversion: At the preconstruction meeting, the CONTRACTOR shall submit in writing to the CITY a description of the procedures and equipment for the diversion of any upstream flows within the system. The proposed plan will demonstrate that there will be minimum impacts to the flow carrying capacity of any existing stormwater collection system remaining functioning and downstream water elevations, particularly during storm events with heavy rainfall. This description is for information purposes only and solely for the convenience of the CITY. The CONTRACTOR agrees that he or she will make no claims against the CITY if, in carrying out the work, he or she finds that the actual conditions encountered require the CONTRACTOR to modify the equipment and method of flow diversion.

**F. Dewatering Permit:** Because of high groundwater tables encountered in the area of the project it is anticipated that dewatering will be required. It shall be the CONTRACTOR'S responsibility to apply for and obtain a dewatering permit, if necessary, from the St. Johns River Water Management District (SJRWMD), prior to beginning these operations. No special compensation will be made to CONTRACTOR to defray the costs of dewatering or of obtaining and abiding by any dewatering permits, but such costs shall be considered as having been included in the price stipulated for the several items of work to be done under this contract. A dewatering permit shall be obtained by the CONTRACTOR from the St. Johns River Water Management District, if necessary, for the construction of this project. As part of the development of the dewatering plan, the CONTRACTOR shall confirm compliance with the Florida Department of Environmental Protection (FDEP) Generic Permit for the Discharge of Produced Groundwater from Any Non-Contaminated Site Activity (Doc Number 62-621.300(2)).

**G. Monitoring:** The CONTRACTOR shall be responsible for water quality testing and monitoring to attain compliance with the referenced dewatering permits as well as activities and discharges that are covered under the conditions of the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP). In the event that the concentrations of tested water quality parameters exceed the allowable concentrations of parameters shown in the Florida Department of Environmental Protection Generic Permit for Discharge of Produced Ground Water, then remedial action may be required. The CONTRACTOR is required to obtain a permit to treat and discharge dewatered groundwater into surface waters or contain any contaminated ground water onsite (no permit required). No separate compensation will be made to the CONTRACTOR to defray the costs of dewatering, water quality testing and treatment or abiding to any dewatering permit conditions as such costs shall be considered to be included in the price stipulated for various items of work to be done under this contract.

The CONTRACTOR is responsible in meeting all the general conditions of the generic permit and submit any required reports to the appropriate agencies.

**H. Project Sign:** The project sign shall be erected prior to the Contractor moving equipment, supplies, trailers, etc. onto the project site. The sign shall be securely mounted on the equivalent of two 4x4 pressure treated wooden posts embedded into the ground at least 4 feet. Alternate mounting and erection scenarios may be evaluated by the Engineer.

## **END OF SECTION**

**SECTION 01501**  
**GROUNDWATER TREATMENT AND DISPOSAL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 GENERAL**

- A. If concentrations of tested groundwater quality parameters exceed those allowable in the Florida Department of Environmental Protection (FDEP) Generic Permit for the Discharge of Produced Groundwater from any Non-Contaminated Site Activity (62-621.300(2), F.A.C.), treatment may be required under this technical provision.
- B. The term treatment as used in this technical provision means the application of all FDEP approved techniques and/or methods available to remove the exceedances out of dewatering effluent except impounding. Impounding is not considered a treatment method for purposes of compensation under this technical provision.
- C. The CONTRACTOR shall include in his/her bid all applicable costs, including monitoring, resulting from treatment and disposal of contaminated groundwater with concentration levels that exceed the allowable limits of the FDEP generic permit, and shall not be entitled to any adjustment in the Contract Price as a result of any change in the permit fees or unanticipated treatment and disposal costs.
- D. Prior to any work commencing, and for the duration of the work, the CONTRACTOR is responsible for meeting all the conditions of the applicable permits and submitting any required reports to the appropriate agencies.  
The CONTRACTOR shall dewater only in relation to the location and relocation of facilities owned by the CITY. No compensation shall be provided for dewatering performed for facilities that are not owned by the CITY.

**PART 2 – PERMITTING**

**2.1 PERMITTING STEPS**

- A. If exceedances are found in the dewatering effluent, the CONTRACTOR will be required to:
  - 1. Immediately notify the CITY and report the exceedances that are encountered.
  - 2. Meet with the FDEP to determine any and all alternatives that are acceptable.



3. Obtain prior CITY approval of treatment and disposal alternatives.
4. Obtain prior written CITY authorization to use pay item TP 900-3-1.
5. Apply and obtain any and all permits and/or treatment approvals that FDEP requires including, but not limited to:
  - a. Generic Permit for Discharges from Petroleum Contaminated Sites (62-621.300(1), F.A.C.). Allows discharges from sites with automotive gasoline, aviation gasoline, jet fuel, or diesel fuel contamination.
  - b. Permit for all Other Contaminated Sites (62-04; 62-302; 62-620 & 62-660, F.A.C.). The coverage is available only through the individual NPDES permit issued by FDEP. Allows discharges from sites with general contaminant issues, i.e. ground water and/or soil contamination other than petroleum fuel contamination.
  - c. Generic Permit for the Discharge of Produced Ground Water from Any Non- Contaminated Site Activity (62-621.300(2), F.A.C.).
  - d. Generic Permit for Stormwater Discharge from Large or Small Construction Activities (62-621.300(4) (a), F.A.C.).
6. Apply and obtain any and all permits and/or treatment approvals that the Water Management District requires including, but not limited to:
  - a. No-Notice Short-Term Dewatering Permit (40E-20.302(3), F.A.C.) If the CONTRACTOR'S proposed work is expected to exceed 90 days in duration, or does not meet any of the other requirements listed with the requirements of Rule 40E-20.302(3), the CONTRACTOR must apply for and obtain a Dewatering General Water Use Permit (40E-20.302(2) F.A.C.)

## **2.2 DELAY CLAIMS**

- A. The CONTRACTOR shall not be entitled to file, or recover under, any delay claim based on preparation of permit applications and the time required for obtaining the applicable permits. If, prior to or during the dewatering, it is determined that the disposal or discharge of the dewatering effluent is not authorized by the FDEP's Generic Permit for the Discharge of Produced Ground Water from Any Non-Contaminated Site Activity, the CONTRACTOR shall diligently pursue further required permit(s) from FDEP or other agencies without resort to delay claims or recompense from the CITY for either permit application activities or the time required to obtain such permits.

## **2.3 SCHEDULE**

- A. The CONTRACTOR shall consider and anticipate the potential need to obtain the herein discussed permits in developing his schedule, and shall make every effort to avoid or minimize potential impacts to his critical path that might result from delays in dewatering activities due to the time necessary for the CONTRACTOR to obtain the necessary permits. The CONTRACTOR shall make every effort to schedule activities requiring dewatering as late as possible during his schedule, and shall schedule activities not impacted by dewatering as early as possible.

## **PART 3- TREATMENT**

### **3.1 ACCEPTABLE TREATMENT**

- A. The CONTRACTOR shall implement the appropriate treatment that is acceptable to FDEP, CITY, and, if necessary, the Water Management District to attain compliance for all exceedances encountered during dewatering activities. Treatments may include, but are not limited to: chemical treatment, ion exchange treatment, filtration, and disposal of discharged groundwater in a properly permitted facility.

### **3.2 TREATMENT ACTIVITIES**

- A. The CONTRACTOR shall:
  - 1. Make every effort to minimize the spread of contamination into uncontaminated areas;
  - 2. Provide for the health and safety of all workers at the job site and make provisions necessary for the health and safety of the public that may be exposed to any potentially hazardous conditions;

3. Ensure such provisions adhere to all applicable laws, rules or regulations covering hazardous conditions in a manner commensurate with the level of severity of the conditions;
4. If necessary, provide contamination assessment and remediation personnel to handle site assessment, determine the course of action necessary for site security, and perform the necessary steps under applicable laws, rules, and regulations for additional assessment and/or remediation work to resolve the contamination issue;
5. Delineate the contamination area(s), any staging or holding area required, and develop a work plan that will provide the schedule of projected completion dates for the final resolution of the contamination issue;
6. Maintain jurisdiction over activities inside any delineated contamination areas and any associated staging or holding areas;
7. Be responsible for the health and safety of workers within the delineated areas; and
8. Provide continuous access to representatives of regulatory or enforcement agencies having jurisdiction.

#### **PART 4– METHOD OF MEASUREMENT**

##### **4.1 METHOD OF MEASUREMENT**

- A. There is no direct measurement for the treatment and disposal of groundwater or the preparation and processing of permit applications

##### **4.2 BASIS OF PAYMENT**

- A. There is no direct payment for groundwater treatment and disposal. The cost of permitting and providing all labor, materials, tools, equipments, monitoring, reporting, treating and disposing of groundwater produced from dewatering systems is included in the lump sum item cost.

**END OF SECTION**

**SECTION 01541  
PROTECTION OF THE WORK AND PROPERTY**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY:**

- A. This Section sets forth the requirements and responsibilities to protect the work and all public and private property and improvements above and below ground from aesthetic and structural damage during the performance of the work.

**1.2 TREE AND PLANT PROTECTION:**

- A. CONTRACTOR shall protect unique species, significant and or historical existing trees adjacent to the site that are shown or designated to remain in place against unnecessary cutting, breaking or skinning of trunk, branches, bark or roots. The CONTRACTOR shall utilize the services of a Florida licensed arborist for protective services if so directed by the CITY.
- B. Materials, fuels, lubricants, chemicals, fire or equipment shall not be stored or parked within the drip line.
- C. Temporary fences or barricades in keeping with regionally recognized damage prevention practices shall be installed to protect trees and plants in areas subject to construction traffic.
- D. Within the limits of the work, water trees and plants that are to remain or that have been temporarily relocated, in order to maintain their health during construction operations.
- E. Cover all exposed roots with burlap that shall be kept continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run-off or noxious materials in solution
- F. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use in a manner approved by the CITY.
- G. All damaged trees and plants that die or suffer permanent injury shall be removed when ordered by the CITY and replaced by a specimen of equal or better quality.

#### **1.4 PROTECTION OF EXISTING IMPROVEMENTS**

- A.** Underground improvements are defined to include, but not limited to, all stormsewer, sanitary sewer, water, gas, and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface improvements located within or adjacent to the limits of the work.
- B.** Surface improvements are defined as all existing buildings, structures and other facilities above the ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads and their dams, channels, open drainage, piping, poles wires, posts, signs, markers, curbs, pavers, walks and all other facilities that are visible above the ground surface.

#### **1.5 PROTECTION OF UNDERGROUND AND SURFACE STRUCTURES:**

- A.** CONTRACTOR shall sustain in their places and protect from direct or indirect injury all underground and surface improvements located within or adjacent to the limits of the work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, CONTRACTOR shall satisfy the CITY that the party owning same has approved the methods and procedures to be used.

#### **1.6 PROTECTION OF FLOORS AND ROOFS:**

- A.** CONTRACTOR shall protect floors and roofs during the entire construction period. Floors that are affected by the construction activities will be restored to the satisfaction of the CITY at the CONTRACTOR's cost.
- B.** Proper protective covering shall be used when moving heavy equipment, handling materials or other loads, when painting, handling mortar and grout and when cleaning walls and ceilings.
- C.** CONTRACTOR shall restrict access to roofs and keep clear of existing roofs except as required by the new work.
- D.** If access to roofs is required, roofing, parapets, openings and all other construction on or adjacent to roof shall be protected with suitable plywood or other approved means.

#### **1.7 PROTECTION OF INSTALLED IMPROVEMENTS**

- A.** Provide protection of installed improvements to prevent damage. Remove protection when no longer needed, with CITY concurrence, prior to completion of work.

B. Control construction traffic to prevent damage to equipment, materials and surfaces.

**PART 2 - PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01568**  
**EROSION & SEDIMENTATION CONTROL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements for the control and containment and general prevention of pollution by erosion and sediment resulting from the project work in compliance with General Conditions of the contract environmental regulations of the City, the County, Department of Environmental Protection and United States Environmental Protection Agency.

**1.2 SUBMITTALS**

- A. CONTRACTOR shall upon request at the Pre-construction meeting submit an Erosion and Sedimentation Control Plan, prepared by an FDEP certified Stormwater Management Inspector, to the CITY for review and acceptance prior to beginning work. Each month a record of erosion control measures in place during the previous month will be provided.
1. Should the CITY receive a warning letter from the Department of Environmental Protection, the CITY/ENGINEER will move to issue a Stop Work Order until the Department of Environmental Protection representative has re-inspected the work conditions and given a statement that the project now appears to be in compliance with Florida Statute Chapter 373 no additional work days will be allowed.
  2. The CONTRACTOR shall submit to CITY in writing the plan of action to prevent erosion and sedimentation problems cited during the project duration

**1.3 JOB CONDITIONS**

Prior to placing a bid for this project the bidder/contractor shall prepare a draft plan of action for erosion and sedimentation control and the full cost for all materials, labor and equipment shall be considered within the bid items of the submitted bid. There will be no extra payment for any installation, maintenance or reinstallation of erosion control devices that the Department of Environmental Protection may order as part of a warning letter.

## **PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

## **PART 3– EXECUTION**

### **3.1 GENERAL**

- A.** CONTRACTOR shall not start work until erosion and sediment control measures are fully in place to prevent pollution of air, water and adjacent property. It shall be the CONTRACTOR's responsibility to provide, construct and maintain all sediment and erosion control devices. The CONTRACTOR shall have an FDEP Certified Stormwater Management Inspector onsite to supervise installation and maintenance of all erosion and sedimentation controls. Best Management Practices shall be used where directed by the CITY.
- B.** The CITY shall not be tasked with advising the CONTRACTOR of compliance, but should the CITY believe the Erosion and Sedimentation Control Plan proposed or installed by the CONTRACTOR to be inadequate the CITY will send a certified letter to the CONTRACTOR warning the CONTRACTOR of potential environmental concern. Should the Department of Environmental Protection conduct a field inspection and the CITY be put on notice the CITY will order the project closed until the erosion and sedimentation control devices are all in place and functioning properly.
- C.** Two (2) primary types of silt barriers may be installed in accordance with an action plan prepared by the CONTRACTOR and as noted on the plans; silt barriers installed on the ground, and floating turbidity/silt-barriers.
- D.** Silt barriers (filter fabric) shall be synthetic and contain ultraviolet ray inhibitors and stabilizers. Silt barriers shall be maintained and remain in-place until all risk of erosion has passed.
- E.** Natural hay bales are not permitted. Only synthetic hay bales are allowed. Synthetic hay bales shall not be used for silt barriers, unless maintained during rain events.
- F.** Inlet sediment protection barrier systems shall be maintained in place until all risk of erosion has passed.
- G.** Sandbagging shall consist of furnishing and placing sandbags in a configuration that prevents or contains erosion.



- H.** Sediment basins shall be constructed as necessary to prevent erosion from leaving the project limits.
- I.** Berms with appropriate sod or all-weather coverings shall be constructed as necessary to divert the flow of water from causing erosion.
- J.** Temporary grassing, chemical soil stabilizers or non-erodable coverings will be required to prevent erosion from soil surfaces with an anticipated unprotected exposure to sun and wind of more than 30 days.

### **3.2 CONTROL OF CONTRACTOR'S OPERATIONS**

- A.** In the event that it is necessary that the construction operations be suspended due to major storm events, the CONTRACTOR shall use due care secure the construction zone and do everything possible to prevent erosion at the same time preventing flooding of adjacent properties. Should such preventative measures fail, CONTRACTOR shall immediately take all action as necessary to effectively remediate erosion and sedimentation damage. Should the CITY be ordered by the Department of Environmental Protection to upgrade erosion control immediately after the major storm event the CONTRACTOR shall contact the CITY for further consideration of available options.

**END OF SECTION**

**SECTION 01570**  
**TRAFFIC CONTROL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

The work in this section includes the coordination, implementation and operation of a Maintenance of Traffic (MOT) plan, in accordance with the construction plans and permits that provides for the safe execution of the work and the safety of the public while maintaining property access and an effective flow of pedestrian and vehicular traffic.

**1.2 SUBMITTALS**

The CONTRACTOR shall submit three maintenance of traffic plan sets complying with the M.U.T.C.D., Part VI and the Florida Department of Transportation (FDOT) Roadway and Traffic Design Standards, latest edition, Index No. 600 series as a project Shop Drawing submittal. The Plan must provide for the maintenance of vehicular and pedestrian traffic, including public safety and driveway access to properties on all roads and streets during the prosecution of the Work. The CITY shall have the right at any time to require revisions to the Plan and to require CONTRACTOR to take additional steps not reflected on the approved Plan, in order to ensure maintenance of vehicular and pedestrian flow and provide protection against damage to access routes and haul routes.

The MOT plan provided in the plans is not intended to dictate to the CONTRACTOR means and methods of construction. The CONTRACTOR may utilize the MOT plan provided in the plans. However, if the CONTRACTOR elects to utilize said MOT plan, he must provide a written statement to the CITY indicating that he has examined the MOT plan and that the CONTRACTOR accepts that the MOT plan is consistent with his intended means and methods. The utilization of the MOT plan provided in the plans may NOT be used as a basis of claim for any reason whatsoever.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

- A. The CONTRACTOR shall be responsible for the implementation of the maintenance of traffic plan. Vehicular and pedestrian traffic including access to businesses and other properties shall be maintained on all roads and streets.

- B.** The CONTRACTOR shall coordinate with the CITY's Project Manager and Traffic Operations Manager and the Owner of the road right of way in preparing the maintenance of traffic plan.
- C.** The CONTRACTOR shall provide a Worksite Traffic Supervisor for the duration of the project, to supervise the implementation of the plan. The Supervisor must be trained and certified by a Florida Department of Transportation approved traffic safety education provider. Contact information shall be provided at the Pre-Construction meeting.
- D.** It shall be the CONTRACTOR's responsibility to restore work site access routes and material haul routes to their pre-construction condition when damages result from the CONTRACTOR's activities.
- E.** The CONTRACTOR shall comply with the requirements and permits of the respective right of way owners while working within their right of ways.
- F.** No additional compensation shall be made for compliance with these requirements.

**END OF SECTION**

**SECTION 01600**  
**MATERIALS AND EQUIPMENT**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the general requirements for quality and uniformity of materials and equipment furnished by CONTRACTOR. Materials and equipment shall conform to applicable specifications, operating and performance standards and comply with the size, make, type and quality specified, or as specifically approved in writing by CITY and or Engineer of Record.

**1.2 TRANSPORTATION AND HANDLING**

- A. Materials and equipment shall be loaded and unloaded by methods affording adequate protection against damage. Every precaution shall be taken to prevent injury to the materials or equipment during transportation and handling. Suitable power equipment will be used and the materials or equipment shall be under control at all times. Under no condition shall the materials or equipment be dropped, bumped or dragged. When a crane is used, a suitable hook or lift sling shall be used. The crane shall be so placed that all lifting is done in a vertical plane. Materials or equipment skid loaded, palletized or handled on skid ways shall not be skidded or rolled against materials or equipment already unloaded.
- B. Materials and equipment shall be delivered to the job site by means that will adequately support it and not subject it to undue stresses. CONTRACTOR shall promptly inspect the products for damage and defects and conformance with the specification. Materials and equipment damaged or injured in the process of transportation, unloading or handling will be rejected and shall be immediately removed from the site.

**PART 2 - PRODUCTS**

- A. The CONTRACTOR shall provide anchor bolts and weather exposed structural attachments in stainless steel for each piece of equipment furnished unless otherwise directed.

**PART 3 - EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01611**  
**STORAGE OF MATERIAL**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section sets forth the requirements and provisions necessary for the storage of materials and equipment. Materials and equipment shall be kept neatly and compactly stored in locations that will cause a minimum of inconvenience to other contractors, public travel, adjoining Cities, tenants, and occupants.

**1.2 UNCOVERED STORAGE**

- A. The following types of materials may be stored out of doors without cover; masonry units, reinforcing steel, structural steel, piping, pre-cast concrete items, castings, hand-railing. Store the above materials on wood blocking so there is no contact with the ground.

**1.3 COVERED STORAGE**

- A. The following types of materials may be stored out of doors if covered with material impervious to water: rough lumber, filter media. Tie down covers with rope and slope to prevent accumulation of water on covers.

**1.4 FULLY PROTECTED STORAGE**

- A. Store all products not named above in buildings or trailers that have concrete or wooden floor, a roof, and fully closed walls on all sides. Provide heated storage space for materials that would be damaged by freezing. Protect mechanical and electrical equipment from being contaminated by dust, dirt and moisture. Maintain humidity at levels recommended by manufacturers for electrical and electronic equipment. Provide air conditioning areas as necessary.

**1.5 MAINTENANCE OF STORAGE**

- A. Maintain a periodic system of inspection of stored products on a scheduled basis to assure that the state of storage facilities is adequate to provide required conditions, that the required environmental conditions are maintained on a continuing basis and that products exposed to elements are not adversely affected.

- B.** Mechanical and electrical equipment which requires long term storage shall have complete manufacturer's instructions for servicing, accompanying each item, with notice of enclosed instructions shown on exterior of package. Comply with manufacturer's instructions on scheduled basis.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

(Not Applicable, General Conditions may apply)

**END OF SECTION**

**SECTION 01660**  
**UTILITY PIPING & EQUIPMENT- GENERAL FIELD TESTING**

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**PART 1 - GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section work includes the performance of general field testing to demonstrate that the new equipment and piping is constructed as specified, meets the manufacturer's and CITY's operating recommendations and is clean and safe to use for its intended purpose.

**1.2 REFERENCES**

- A. The CITY Utilities Department Standard Details, latest edition, AWWA C 651 and ancillary applicable standards and manufacturer's recommended standards shall apply.

**1.3 SUBMITTALS**

- A. The CONTRACTOR shall submit to the CITY the results of field tests.

**1.4 PRELIMINARY TESTING**

- A. The CONTRACTOR shall make preliminary field tests of all equipment and piping as conditions permit.
- B. Purpose of testing shall be to establish that the equipment and piping was delivered to the site in good condition, properly installed, complies with operating cycle, does not overheat or overload, vibrate or operate in an unacceptable manner.
- C. CONTRACTOR shall furnish all labor, materials, instruments, fuel, Incidentals and expendables required, unless otherwise provided.
- D. CONTRACTOR shall make all changes, adjustments and replacements required to place equipment in service and provide verification testing.
- E. The CITY shall be given sufficient prior notice to prepare for and witness tests.

## **1.5 JOB CONDITIONS**

- A.** CONTRACTOR shall review the field conditions prior to placing a bid for this project and evaluate the testing schedule that will be required. To the maximum extent possible the CONTRACTOR shall schedule field tests to allow portions of the project to be cleared for use and to allow pavement replacement final grassing to begin as soon as possible.
- B.** Review any planned partial system disinfection with the CITY a minimum, of two weeks in advance to verify that a partial clearance or approval will be allowed.

## **PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

## **PART 3 - EXECUTION**

### **3.1 FINAL TESTING**

- A.** The CONTRACTOR shall perform final field tests of equipment and piping, provide install and remove test equipment and appurtenances and make all CITY required system adjustments and replacements resulting from failed tests at his cost prior to acceptance.
- B.** The field tests shall clearly demonstrate that the equipment and piping meet the operational requirements and manufacture's recommended standards. The cost of all work and materials needed to perform the field tests shall be included in the applicable pipe and equipment items or included in the project lump sum bid value.
- C.** The cost of all work and materials needed to perform the field tests shall be included in the applicable pipe and equipment items or included in the project lump sum bid value.
- E.** All disinfection water shall be de-chlorinated and flushing, pigging and miscellaneous testing water shall be free of pollutants prior to discharge to any stormwater system, wetland, waterway or water-body.
- F.** Pigging will be required for all pressure piping that has a 6" or greater inside diameter. At the CITY's direction flushing without pigging will be used on gravity systems and pipes with an inside diameter less than 6".



- G.** CONTRACTOR shall seek approval from the CITY for scheduling tests at least 72 hours in advance of the desired timeframe. In the case of flushing, disinfection or pigging operations and/or tests the Utilities Department Water System Manager will determine the time period (night or day) when these operations and tests are allowed to be conducted in order to minimize the negative impacts of additional water volume demands.

### **3.2 WATER MAINS**

- A.** **The CONTRACTOR shall provide an AWWA C651 compliant disinfection/de-chlorination/disposal plan for CITY approval a minimum of two weeks prior to the proposed disinfection test date.** The disinfection test date shall be scheduled in coordination with the CITY Utilities Department Testing Laboratory to ensure that adequate staff is available for sampling and analysis and to determine if the test will need to occur after normal daytime working hours.
- B.** Pressure tests shall be conducted with the pipe system in-place after pigging has occurred and to the extent practicable before backfilling. Pressure piping and valves shall be statically tested at 150 psig. The test pressure shall be maintained for a minimum of four (4) uninterrupted hours and be measured at the high point in the line. Hydrostatic Testing per Section 5.2 ANSI/AWWA C600-05 (Contact the CITY for a copy of same) All air shall be expelled from the line before applying the test pressure. Exposed pipe, joints and other potential leak sources shall be carefully examined for leaks.
- C.** Acceptance of the piping installation shall be determined on the basis of testing allowances for the pipe material used in accordance with the AWWA C600-05 standard. If any test of laid pipe discloses a testing allowance greater than that specified in Section 5.2.1.6 ANSI/AWWA C600-05, repairs or replacements shall be accomplished in accordance with these specifications
- D.** The CITY will conduct random operational inspections of the in line valves and water services to be certain that the total water main has been fully pressure tested.

### **3.3 SANITARY, STORMWATER & RECLAIMED FORCE MAINS**

- A.** Force mains shall be pigged and subjected to a hydrostatic leakage test. This test measures the amount of water required to be supplied to newly laid pipe to maintain a specified pressure after the pipe has been filled with water and the air expelled. The duration of this test shall not be less than two (2) uninterrupted hours and the test pressure shall be 100 psig as measured at the high point in the line. The maximum allowable leakage for the pipe material used shall not exceed the applicable limits specified in AWWA C-600.
- B.** Acceptance of the piping installation shall be determined on the basis of testing allowances defined in the AWWA C600-05 standard. If any test of laid pipe discloses a testing allowance greater than that specified in Section 5.2.1.6 ANSI/AWWA C600-05, repairs, replacement and re-testing at the CONTRACTORS sole expense shall be accomplished in accordance with these specifications.
- C.** The CITY will conduct random inspections and operational evaluations of the in line valves and blow off points to be certain that the total force main has been fully pressure tested

### **3.4 SANITARY & STORMWATER GRAVITY MAINS**

- A.** Acceptance of the sewer piping installation shall be determined on the basis of the CONTRACTOR conducting a televised inspection of the mains and laterals with a copy to be provided at no additional cost the CITY. CITY personnel will also conduct a visual inspection of all structures including manholes and piping. .
- B.** Acceptance of the piping installation shall be determined on the basis of zero (0) infiltration or inflow being detected. When defects in sewer piping are discovered the CITY will advise the CONTRACTOR in writing of the most acceptable course of action which may include the total removal and replacement of the defective system installation.

**END OF SECTION**

**SECTION 01699**  
**Tideflex® CheckMate® Inline Check Valve**

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**PART 1 – GENERAL**

Tideflex® CheckMate® Inline Check Valves are the only backflow preventers that are acceptable for this project.

**1.01 SUBMITTALS**

- A. Submit product literature that includes information on the performance and operation of the valve, materials of construction, dimensions and weights, elastomer characteristics, headloss, flow data and pressure ratings.

**PART 2 PRODUCTS**

**2.01 “CHECKMATE®” ELASTOMERIC CHECK VALVES**

- A. Check Valves are to be all rubber and the flow operated check type with slip-in cuff or flange connection. The entire CheckMate® Valve shall be ply reinforced throughout the body, disc and bill, which is cured and vulcanized into a one-piece unibody construction. A separate valve body or pipe used as the housing is not acceptable. The valve shall be manufactured with no metal, mechanical hinges or fasteners, which would be used to secure the disc or bill to the valve housing. The port area of the disc shall contour down, which shall allow passage of flow in one direction while preventing reverse flow. The entire valve shall fit within the pipe I.D. Once installed, the CheckMate® Valve shall not protrude beyond the face of the structure or end of the pipe.
- B. The downstream end of the valve must be circumferentially in contact with the pipe while in the closed positions.
- C. Slip-in style CheckMate® Valves will be furnished with a set of stainless steel expansion clamps. The clamps, which will secure the valve in place, shall be installed inside the cuff portion of the valve, based on installation orientation, and shall expand outwards by means of a turnbuckle. Each clamp shall be pre-drilled allowing for the valve to be pinned and secured into position in accordance with the manufacturer’s installation instructions. Flange style CheckMate® Valves will be furnished with a stainless steel, ANSI 125/150 drilled, retaining ring unless specified otherwise.
- D. Manufacturer must have flow test data from an accredited hydraulics laboratory to confirm pressure drop and hydraulic data. Company name, plant location, valve size patent number, and serial number shall be bonded to the check valve.

**2.02 FUNCTION**

- A. When line pressure exceeds the backpressure, the line pressure forces the bill and disc of the valve open, allowing flow to pass. When the backpressure exceeds the line pressure, the bill and disc of the valve is forced closed, preventing backflow.

### **2.03 MANUFACTURER**

- B.** All valves shall be of slip-in or flanged CheckMate® as manufactured by Tideflex Technologies®, A Division of Red Valve Company, Carnegie, PA 15106. All valves shall be manufactured in the U.S.A.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A.** Valve shall be installed in accordance with manufacturer's written Installation and Operation Manual and approved submittals.

### **3.02 MANUFACTURER'S CUSTOMER SERVICE**

- A.** Manufacturer's authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.
- B.** If specified, the manufacturer shall also make customer service available directly from the factory in addition to authorized representatives for assistance during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.

**END OF SECTION**

**SECTION 01700**  
**SUBSTANTIAL COMPLETION OF FACILITIES**

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**PART 1 - GENERAL REQUIREMENTS:**

**1.1 SUMMARY**

The work in this section includes general requirements evidencing completion of the work in preparation for final acceptance not otherwise found in Section 01720 As-Built Record Documents and the General Conditions.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

**3.1 COMPLETION PROCEDURES:**

General operating/Maintenance Instructions: Arrange for each installer of work requiring continuing maintenance (by the CITY) or operation, to meet with the CITY’s personnel, at the project site, to provide basic instructions needed for proper operation and maintenance of the entire work. Include instructions by manufacturer’s representatives where installers are not expert in the required procedures. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, cleaning and similar procedures and facilities. For operational equipment, demonstrate start-up shutdown, emergency operations, noise and vibration adjustments, safety, economy/efficiency adjustments, and similar operations. Review maintenance and operations in relation with applicable guarantees, warranties, agreements to maintain, bonds, and similar continuing commitment.

**3.2 FINAL CLEANING:**

General: Provide final cleaning of the work, at the time indicated, consisting of cleaning each surface or unit of work to the normal “clean” condition expected for public streets, sidewalks and right of way. Comply with manufacturers’ instructions for cleaning operations. The following are examples, but not by way of limitation, of the cleaning levels required:

1. Clean project site (yard and grounds), including landscape, development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petrochemical spills and other foreign deposits. Rake grounds, which are neither planted nor paved, to a smooth even-textured surface.

**3.3 Removal of Protection:**

Except as otherwise indicated or requested by the CITY, remove temporary protection devices and facilities which were installed during the course of the work and dispose of them when no longer needed.

**3.4 Compliancy:**

- A.** Comply with safety and erosion control standards and governing regulations for cleaning operations. Do not burn waste materials at the site, or bury debris or excess materials on the CITY's property, or discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of them in a timely and lawful manner.
  
- B.** Where materials of value are to become CITY property after completion of the work the CONTRACTOR shall store them as directed by the CITY.

**END OF SECTION**

**SECTION 01720**  
**AS-BUILTS/RECORD DOCUMENTS**

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**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

- A. This Section sets forth the requirements for preparing as-built/record drawings and documents for verification of construction and archiving for future use. CONTRACTOR shall secure the services of a Florida licensed surveyor to collect data and prepare as-built/record drawings.

**1.2 REFERENCE**

- A. The preparation work shall be in accordance with this Section and supplementary details in the City of Daytona Beach Utilities Department Standard Details, latest edition.

**1.3 AS – BUILT/RECORD DRAWINGS**

- A. As-built/record drawings are required for all public facilities constructed. Prior to construction completion these as-built/record requirements will be reviewed to be certain the Contractor's surveyor has a clear understanding of what is required for completion of this work.
- B. In order to ensure that the City's project records are maintained to the highest standards and the information can easily be added to the City's electronic records the following information is required on all as-built/record drawings:
  - 1. Pavement and curb widths shall be verified and dimensioned for each street at each block (for subdivisions) and as appropriate to confirm paving limits (on site plans).
  - 2. All radii at intersections shall be verified and dimensioned. This information is to be clearly indicated on the as-built/record drawings.
  - 3. Roadway elevations shall be recorded at all grade changes, 100' intervals along roadway, and other intervals as needed along all streets. Street centerline and curb invert elevations shall be recorded as noted.

4. The as-built centerline profile of all streets shall also be shown on the plan and profile so it may be compared to the design profile grade lines. In the event that the as-built centerline longitudinal grade does not meet the City minimum standards, additional longitudinal grades of the adjacent curbing and similar roadway cross-section surveys to verify the correct cross slope, shall be required to verify that the system will function as originally designed.
5. Storm drainage structures shall be located and/or dimensioned from centerlines or lot lines as appropriate. Each structure shall be located by sub-meter GPS with latitude, longitude and elevation data.
6. Storm drainage pipe invert and inlet elevations shall be recorded and clearly denoted as as-built information. Design elevations shall be crossed out and as-built information written next to it.
7. Storm drainage pipe material, length, and size shall be measured and/or verified. This information is to be clearly indicated as being as-built information.
8. All applicable topographic information pertinent to the on-site drainage system, such as ditches, swales, lakes, canals, etc. that are deemed necessary by the City to verify the functional performance of the storm water system, shall be noted. Normally, recording elevations every 100 feet at the top of bank and toe of slope will be required. Measurements shall be taken and recorded in order to accurately tie down these features to the roadway centerlines and to plat lines. Whenever possible, contour lines shall be utilized to graphically describe these topographic features.
9. Retention areas shall have their top of bank and bottom elevations recorded. Actual measurements shall be taken and dimensions recorded of the size of all retention areas. Measurements shall be done from top of bank with side slopes indicated. Separate calculations shall be submitted to indicate required and provided retention volumes.
10. Actual materials used and elevations and dimensions of overflow weir structures and skimmers shall be noted on the as-built.



- 11.** Storm drainage swale centerlines shall be located and elevations of flow line and top of bank shall be recorded every 100 feet. Side slopes shall also be indicated.
- 12.** Sanitary sewer manholes shall be verified and dimensioned from street centerlines or lot lines as appropriate. All rim and invert elevations shall be verified and recorded. This information shall be clearly indicated as being as-built information. Design Elevations shall be crossed out and as-built information written next to it.
- 13.** For subdivisions, proposed design finish floor elevations shall appear on all subdivision lots on the appropriate plan and profile sheet as well as on the master drainage plan.
- 14.** Sanitary Sewer line lengths, sizes, material, slope, etc., shall be verified and recorded, this information is to be clearly indicated as being as-built information.
- 15.** Sewer Laterals shall be verified and recorded at their clean out locations, stationing and offset distances shall be measured from downstream manholes towards upstream manholes. Invert information at clean out shall be provided, and be located by sub-meter GPS with latitude, longitude and elevation data
- 16.** Lift stations and force mains shall be verified and dimensioned from street centerlines or lot lines as appropriate. Force main depth and location including valves will be provided and tied to permanent above grade features. Dimensional and elevation information indicated on the approved plan shall be verified and recorded. This information shall be clearly indicated as being as-built information. Buried potable water lines and electrical service lines shall be clearly dimensioned, located, and labeled. Each lift station shall be located by sub-meter GPS with latitude, longitude and elevation data provided.
- 17.** Curb cuts or metal tabs, used to mark sewer laterals, water services and water valves, shall be verified for presence and accuracy of location.

- 18.** Potable and reclaimed water main lines shall be dimensioned off the baseline construction. Water main line material size, length and depth placed shall be noted. Locations of valves shall also be tied to baseline construction. This information shall be clearly indicated as being as-built information.
- 19.** Potable and reclaimed water valves, tees, bends, all services, and fire hydrants shall be located by tying them to baseline construction (Sta. & Offset). Similarly, force main valves, tees and bends shall be located in the same manner. Stationing and offset distances shall be measured from downstream manholes to upstream manholes. All valves and hydrants shall be located by sub-meter GPS with latitude, longitude and elevation data provided.
- 20.** For perpendicular crossings of storm water, sanitary sewer, potable water, or reclaimed water, the as-built plans shall clearly indicate which utilities are located over or under other utilities, as necessary.
- 21.** Any special features such as, concrete flumes, lake banks, walls, fencing, etc. which are a part of the approved construction drawings should also be located and dimensioned.
- 22.** If an approved subdivision plat or site plan shows a conservation easement, the project surveyor should provide the exact location of the specimen tree(s) from the right-of-way or property lines and proposed easement boundaries on the as-built drawing. The as-built location of these trees will help verify the sufficiency of the conservation easement prior to plat recording or certificate of occupancy.
- 23.** When storm water, potable water, reclaimed water, or sanitary sewer improvements are located within an easement, the as-built drawing will accurately depict the location of the easement itself as well as the exact location of the improvements within the easement. This is required in order to verify that the improvements have been properly located and to ensure that future subsurface excavation to perform remedial repair can be accomplished without disturbance beyond the easement.

24. As-built drawings are to be prepared by a Florida licensed surveyor and shall include a signed certification statement by the Florida licensed engineer of record. A Mylar set of as-built record drawings shall be provided with a digital copy in a compatible AutoCAD format.
25. Elevations shall be referenced to NGVD 1988 Data. As-built survey information shall be referenced to at least two Florida State Plane east coordinates NAD 83.
26. Benchmark Datum utilizes monumentation from the North American Vertical Datum of 1929 with elevations adjusted to NGVD 1988 data. Any NAVD 1929 monument with the limits of construction is to be protected.

## **1.2 SUBMITTALS**

- A. CONTRACTOR shall submit each month to CITY the Project Activity Summary that shows current construction activities and a copy of notices to agencies including the City regarding road closures; plus a record of events that will be needed in the future.
- B. CONTRACTOR shall submit to CITY as required the proposed shut-off schedule, capping, temporary service scheduling, record of notices to customers and proposed roadway closings.
- C. CONTRACTOR shall submit copies of published notices.
- D. CONTRACTOR shall submit Record Drawings on CD and Mylar. When the As-Built drawings are delivered for clearance of water lines (two paper copies), they will be scheduled for chlorination. CITY will not release the drinking water bacteriological laboratory report to Volusia County Health Department until the As-built information meets CITY requirements. CONTRACTOR will have 60 days from the time the bacteriological samples are collected to submit the as-built Mylar and CD to CITY. Send the two paper copies for approval before making the Mylar. If CONTRACTOR goes past the 60 days re-chlorination will be required and pay for the bacteriological laboratory report will be required. Below are minimum detail samples of how the As-built drawing information will need to be presented
- E. These are examples of how to display and label valves, fittings, and pipes on the plans. Include a location arrow going to the identified object

20" GATE VALVE  
STA. 22+33 (LT.55.0')  
LAT. = 29°12'53.009"N  
LONG. = 81°04'03.355"W  
TOP ELEV. = 27.50  
FINISH GROUND ELEV. = 30.50

#### Pipes Example

20" DIP WATER MAIN  
STA. 22+00 (RT.55.0')  
LAT. = 29°12'50.009"N  
LONG. = 81°04'26.355"W  
TOP OF PIPE ELEV. = 27.50  
FINISH GROUND ELEV. = 30.50

(All Bench Marks used must be shown on the plans)

#### Bench Mark Example:

BM#13  
STA. 20+33 (LT. 85.5')  
3/4" Iron Rod with Plastic Cap...  
N = 1,774,373.4058  
E = 634,602.7566  
LAT. = 29°04'53.355" W  
LONG. = 81°04'53.355" W  
ELEV. = 32.55

## **PART 2- EXECUTION**

### **2.1 GENERAL**

All drawings shall be prepared to True State Plane Coordinates. CONTRACTOR shall provide all materials, equipment, labor needed to prepare and submit accurate As-built/Record Drawings.

- A. It is acceptable to CITY if the surveyor utilizes an after the fact approach to collecting and verifying the location and depth by vertical PVC pipes placed by the CONTRACTOR as markers for this purpose. The surveyor shall verify to the accuracy defined in Florida Statutes the As-built conditions and certify the Record Drawings.

- B.** CITY shall not be considered the best source of information for valve locations that may have been lost during final grading, the surveyor or CONTRACTOR shall excavate and properly mark all valve boxes and each valve shall have a tag or color coded to define water, sewer or reuse water valves. The use of temporary PVC pipe markers color coded is acceptable so long as cross references are provided on the Record Drawings to prevent the tops from a water valve being placed on a sewer valve.
- C.** THE CONTRACTOR SHALL PROVIDE THE UTILITIES DEPARTMENT ENGINEERING DIVISION THE FINAL AS BUILT/RECORD DRAWINGS ON CD AND MYLARS. THE AS-BUILT RECORD DRAWINGS SHALL BE PREPARED USING AUTOCAD FORMAT 2010 OR LATER. IN MODEL SPACE THE DRAWING SHALL BE IN FL83-EF STATE PLANE COORDINATES AND SHALL BE ABLE TO BE INSERTED INTO THE CITY'S OVERALL GIS SYSTEM. THE RECORD DRAWINGS SHALL ALSO BE PRINTED ON MYLAR SIGNED AND SEALED AS ALLOWED BY STATE OF FLORIDA REGULATIONS. A DISCLAIMER MAY BE NOTED IN A TRANSMITTAL LETTER PLUS THE SURVEYOR MAY ADD A SPECIAL NOTICE ON EACH SHEET REGARDING THE LOCATION OF THE TRUE ORIGINAL RECORD DRAWINGS OR PLACE LIMITS ON RESPONSIBILITY SHOULD SOMEONE IN THE FUTURE SOMEONE NEED TO MODIFY THE MYLARS.
- D.** Identify the source markers for the survey used for Record Drawings.

**END OF SECTION**

**SECTION 02202**  
**EXCAVATING, BACKFILLING AND COMPACTING**

---

**PART 1 – GENERAL REQUIREMENTS**

**1.1 SUMMARY**

- A. This Section includes the requirements for furnishing equipment, labor and materials, and performing all operations necessary and incidental to complete the required work.
- B. Payment for all work described in this Section shall be included in the unit prices for the associated primary items of work such as pipe, utility and stormwater system components, jack and bore, horizontal and vertical drilling operations, etc... unless otherwise noted in the plans.

**1.2 REFERENCES**

- A. The requirements of the CITY Utility Department Standard Details, latest edition, The Florida Department of Environmental Protection-Stormwater Erosion and Sedimentation Control Inspector's Manual, latest edition and Section 01200, 01568.

**PART 2 – PRODUCTS**

(Not Applicable, General Conditions may apply)

**PART 3– EXECUTION**

**3.1 CONSTRUCTION**

- A. Clearing: The site of the work shall be cleared of all trees, shrubs, improvements and objectionable material that interfere with the completion of the proposed work. The CONTRACTOR shall be responsible for the offsite disposal of all clearing debris. Trees and shrubs that will not interfere with construction shall be protected from damage. Clearing shall be considered as an incidental item with the cost to be included in the applicable primary items of work unless otherwise noted in the plans.

- B. Excavation:** Perform excavation of all soils and materials encountered to the dimensions and depths specified or shown on the drawings as necessary to construct the associated applicable items of work. Undercutting will not be permitted, except when ordered by the CITY. Material suitable for backfill shall be stockpiled near the site. Rock and cemented coquina shall be the property of the CITY and be spoiled outside the area in a neat manner, as directed by the CITY. Other soils and materials unsuitable for backfill shall be disposed of by the CONTRACTOR in areas provided by him. Where it is necessary to cut roots projecting into an excavation or where it is necessary to trim branches for equipment clearance, all severed root ends or cuts to branches over 1/2" diameter shall be treated with an asphalt base pruning paint. Backfill over exposed roots as soon as possible.
- C. Rock and Cemented Coquina:** Where rock and cemented coquina are encountered, the trench bed shall be excavated to a depth of 1/4 of the pipe diameter but in no case less than 4" below the bottom of the pipe. All undercut trench excavation shall be backfilled with suitable materials and made firm and unyielding as specified in the following paragraphs under Unstable Soils and Materials.
- D. Unsuitable Soils and Materials:** In the event that unsuitable soils and material is encountered at or below the excavation depth specified or shown on the drawings, the CITY shall be notified. Such material shall be removed, disposed of and replaced with suitable material. The CITY shall determine the methods and materials to be used, based upon the condition of the excavation, the pipe or structure to be supported, and the availability and character of stabilizing materials.
- 1. Methods and materials used for replacement shall be one of the following as directed by the CITY in writing:**
    - a. Suitable earth or sand compacted in the trench. Materials shall be furnished and paid for as a part of the pipe or structure bid item.**
    - b. Gravel or crushed limerock compacted in the trench. Materials shall be furnished and paid for as part of the pipe or structure bid item.**
    - c. Existing materials, stabilized after removal and then replaced and compacted in the trench and paid for as part of the pipe or structure bid item.**

**E. Trenching:**

1. Keep pipe laying operations as close to the excavation operation as possible during the prosecution of the work. The CITY reserves the right to stop the excavation-at any time when, in its opinion, the excavation is not properly safe-guarded or is opened too far in advance of the pipe laying.
2. Pipe trenches shall be excavated to a depth that will insure a minimum of 36” of cover for all types of pipe, except service laterals. Trenches shall be only of sufficient width to provide a free working space on each side of the pipe. The maximum width of trench at the top of the pipe and at the bottom of the trench shall not be greater than two feet wider than the greatest exterior diameter of the pipe. If this maximum width is exceeded, it shall be the CONTRACTOR's responsibility to provide, at no additional cost to the owner, such additional bedding or select backfill materials as the CITY may require. The excavation below the spring line shall be made to conform as near as possible to the shape of the lower third of the pipe. To protect the pipe lines from unusual stresses, all work shall be done in open trenches. Excavation shall be made for bells of all pipes and of sufficient depth to permit access to the joint for construction and inspections. In no case will the bells be used to support the body of the pipe.
3. In order to avoid existing utilities, at times it may be necessary for the pipe to be laid deeper than the minimum cover specified in the preceding paragraph. At such time, the CONTRACTOR will not be allowed extra compensation for additional excavation involved.
4. In case excavation has been made deeper than necessary, a layer of concrete, fine gravel or other material satisfactory to the CITY shall be placed, at no extra cost, to secure a firm foundation for the lower third of each pipe. Where possible, excavated material shall be placed so as not to interfere with public travel. Bridging shall be provided for public travel and to afford necessary access to public or private premises. Bridging shall be considered as part of the excavation operation and shall be supplied at no additional cost to the Owner.

**F. Structures Excavation: (For inlets, manholes, valve pits and similar structures)**



1. Remove sufficient material to allow proper space for erecting and removing forms. The elevations of the bottoms of footings, if shown on the drawings, shall be considered as approximate only, and the CITY may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary to secure a satisfactory foundation. Excavation for structures shall be sufficient to leave at least 12" in the clear between their outer surfaces and the embankment or timber that may be used to protect them. Backfill of earth under structures will not be permitted. Excess excavation for structures shall be filled with thoroughly compacted sand, gravel, or concrete at the expense of the CONTRACTOR.
2. After excavation for a structure is completed, the CONTRACTOR shall notify the CITY to that effect. No concrete or reinforcing steel shall be placed until the CITY has inspected the depth of the excavation and the character of the foundation material. Materials for roadways, road shoulders, alleys, or driveways, shall be compacted to a minimum of 98% of the maximum density as determined by AASHTO Method T-180.

**G. Sheeting and Shoring:**

1. The CONTRACTOR shall provide all trench and structural bracing, sheeting or shoring necessary to construct and protect the excavation, existing utilities, structures and private property of all types and as required for the safety of the employees. Sheeting shall be removed or cut off by the CONTRACTOR during backfilling operations as directed by the CITY.
2. Removal of shoring for structures shall be done in such a manner as not to disturb or mar finished masonry or concrete surfaces.

**H. Drainage:** Grading shall be controlled in the vicinity of excavations so that the surface of the ground will be properly sloped to prevent water from running into trenches or other excavated areas. Any water that accumulates in the excavations shall be removed promptly by well point or by other means satisfactory to the CITY in such a manner as to not create a nuisance to adjacent property or public thoroughfare. Trenches shall be kept dry while pipe is being laid. Bridging of dewatering pipe shall be provided where necessary. Pumps and engines for well point systems shall be operated with mufflers, and at a minimum noise level suitable to a residential area. The CONTRACTOR will not be allowed to discharge water into the owner's storm drainage system without the written approval of the CITY. Approval will be subject to the condition that the storm sewer be returned to its original conditions.

**I. Backfill:**

- 1.** Trenches shall be backfilled immediately after the pipe is laid unless other protection for the pipe line is provided. Clean earth, sand, crushed limerock, or other material approved by the CITY shall be used for backfill. Backfill material shall be selected, deposited and compacted so as to eliminate the possibility of lateral displacement of the pipe. Backfill material shall be solidly tamped around the pipes in six (6) inch layers up to a level at least one foot above the top of the pipe. Backfilling shall be carried out simultaneously on both sides of the pipe.
- 2.** The remainder of the backfill shall be deposited and compacted by puddling water, flooding or mechanical tampers except in areas where paving is to be placed over the backfilled trench. In these areas, the entire depth of backfill shall be deposited in six (6) inch layers and compacted by hand or mechanical tampers. Compaction shall be carried out to achieve a density of at least 98% of the maximum density as determined by ASSHTO Method T-180. Under areas to be paved, puddling may be used for backfill consolidation after tamping to one foot over the pipe, as specified, provided the method is first approved by the CITY and the density requirements are met.
- 3.** In areas to be paved, density tests for determination of the specified compaction shall be made by a testing laboratory and spaced one in every 300 feet of trench cut. Density tests shall be considered a part of the backfill operation. It is the intent of this specification to secure a condition where no further settlement of trenches will occur. When backfilling is completed, the roadway base for pavement replacement may be placed immediately.

- J. Structures Backfill:** After completion of foundation footings and walls and other construction below the elevation of the final grades, and prior to backfilling, all forms shall be removed, and the excavation shall be cleared of all trash and debris. Material for backfilling shall consist of the excavated materials, borrow sand or other approved materials, and shall be free of trash, lumber or other debris. Backfill shall be placed in horizontal layers not to exceed a nine (9) inch thickness and have a moisture content such that a density may be obtained to prevent excessive settlement or shrinkage. Each layer shall be compacted by hand or approved machine tampers with extreme care being exerted not to damage pipe or structures. Backfill shall be placed and compacted evenly against the exposed surfaces to prevent undue stress on any surface.

**K. Restorations of Areas Disturbed by Construction:**

1. All improvements and natural systems on public or private property which have been damaged, altered or removed during construction, shall be restored in accordance with the respective owner's permit requirements or CITY requirements to conditions equal to or better than conditions existing prior to beginning work unless otherwise noted in the plans. Restoration of shoulders shall consist of stabilizing, grading and sodding as directed by the CITY. The cost of doing this work shall be included in the cost of the various applicable primary items unless otherwise directed in the plans. Photographs as specified in Section 01200 will be used as an aid in determining existing condition details prior to construction.
2. Materials for roadways, road shoulders, alleys, or driveways, shall be compacted to a minimum of 98% of the maximum density as determined by ASSHTO Method T-180. The cost of this work and furnishing new materials shall be included in the cost of the applicable items of work as no separate payment will be made unless a separate bid item is provided.

**L. Grading:**

1. The CONTRACTOR shall within a maximum of two (2) weeks from date of excavation, rough grade existing surfaces disturbed by construction to provide surfaces suitable for proper use of mowing machines.
2. Finished areas around structures shall be graded smooth and hand raked. All finished areas shall be safely traversable by pedestrians and meet the elevations and contours shown on the drawings. Lumber, earth clods, rocks and other undesirable materials shall be removed from the site.

**M. Disposal of Materials:** Such portions of the excavated soils and materials as needed and as suitable shall be used for backfilling and grading about the completed work to the elevations as shown on the drawings or as directed. Unsuitable materials consisting of rock or cemented coquina shall be the property of the CITY. CONTRACTOR shall remove, stockpile for CITY pick up, and replace with dry compacted granular material, satisfactory to the CITY unless otherwise directed in the plans and specifications. Other unsuitable soils and materials and suitable excavated material in excess of the quantity required for completion of the work shall belong to the CONTRACTOR and be disposed of by the CONTRACTOR in areas provided by the CONTRACTOR unless otherwise directed in the plans and specifications.

N. Sediment, Erosion and Dust Control: It shall be the responsibility of the CONTRACTOR to take all necessary steps to prevent soil from eroding onto all paved areas and into all natural watercourses, ditches, private properties and the public sewer systems. Streets and haul roads shall be swept by an automatic, self-contained mechanical sweeper. Prevent air and water pollution through dust and dirt control to the satisfaction of the CITY in the following areas:

1. Streets, sidewalks and drives within the limits of the contract and all construction material stockpile and field office site locations.
2. Any haul roads leading to or away from the project that are used by the CONTRACTOR, his sub-contractors and his material suppliers.

The CONTRACTOR shall comply with the above requirements on a daily basis. If the CONTRACTOR fails to perform the above work in a satisfactory manner, all work, except cleanup operations, will be stopped immediately until the CONTRACTOR has complied with the above requirements to the satisfaction of the CITY.

**END OF SECTION**

**SECTION 02489  
GRASSING**

---

**PART 1 - GENERAL**

**1.1 SCOPE OF WORK**

- A. This Section set forth the work to establish and maintain a thriving stand of grass, as determined by the CITY, within the areas disturbed by construction operations. Disturbed areas shall be sodded unless they are indicated in the plans to be seeded and mulched

**1.2 REFERENCES**

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition sections 570, 981, 982 and 983 deference to the CITY requirements of this Section.

**1.3 SUBMITTALS**

- A. At the CITY's discretion the CONTRACTOR shall provide a certification of quality from the supplier that the materials are free from invasive species and noxious pests and meet or exceed the specification and referenced requirements.

**1.4 JOB CONDITIONS**

- A. The CONTRACTOR shall have photographs of the before conditions to ensure that the grassing is properly installed to meet or exceed the pre-construction condition.

**PART 2 - PRODUCTS**

**2.1 GRASS SOD**

- A. Sod shall comply with the requirements of Section 570, 981, and 983 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition with the exceptions that all required water, fertilizer, slope pegging and maintenance will be included in the unit cost of the sod and the sod type shall not be limited to the three types or the CONTRACTOR's option as set forth in Sub-section 981-3.1.

- B.** Sod shall match the adjacent existing type or shall be Argentina Bahia if the existing sod is weedy and unidentifiable. Sod shall be installed within 5 days after cutting.
- C.** Sod shall be in good health, have adequate moisture at the time of delivery and installation and be free from weeds, other objectionable vegetation, fungus, insects and disease of any kind.

## **2.2 SEED AND MULCH**

- A.** Seeding and mulching shall comply with the requirements of Section 570, 981, 982 and 983 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 edition with the exception that all work and the cost of all seed types, mulch, water, fertilizer will be included in the unit cost of the seed and mulch pay item.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION AND MAINTENANCE**

- A.** Seed, mulch and sod shall be placed to achieve a smooth and easily traversable finish. Portions of unhealthy sod shall be removed and replaced within 10 days of placement at no additional cost.
- B.** Seed, mulch and sod shall be watered as necessary to keep it alive and healthy until the CITY accepts the project. For areas of sod placed adjacent to well maintained lawns the CONTRACTOR shall see to it that the property owner is pleased with the work and that the property owner's irrigation system has not been broken. Excessive storage of sod within the street right of ways is prohibited. Each area of the project that is completed and ready for grassing acceptance should be listed in an attachment to the periodic pay estimate.
- D.** Fertilizer, water and or mowing will be required for the grassed areas, as directed by the CITY, throughout the duration of the project to ensure that they are green, thriving and of good appearance on the day the CITY accepts the project. One month prior to the end of the warranty period all sod that is not fully established shall be replaced.

**E.** CONTRACTOR may secure a fire hydrant meter following payment of established fees to provide for a source of water. The cost of all water used by the project shall be the responsibility of the CONTRACTOR. If the CONTRACTOR fails to allow the Utility Billing personnel to record the Fire Hydrant meter volumes, the Fire Hydrant meter shall be returned immediately. No partial or final project payments will be allowed if the outstanding water meter use fees are unpaid.

**END OF SECTION**

**SECTION 02607**  
**PRECAST CONCRETE WET WELL**

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**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section sets forth the requirements for the materials and work to construct pre-cast concrete wet wells.

**1.2 REFERENCES**

- A. FDOT Standard Specifications for Road and Bridge Construction, 2000 edition, section 346, FDOT Design Standards, 2010 edition, index 200 with deference to CITY specification Section 03300 and Utilities Department Standard Details where more restrictive.

**1.2 SUBMITTALS**

- A. The CONTRACTOR shall submit shop drawings prior to the manufacturer of the pre-cast concrete wet well.

**1.3. JOB CONDITIONS**

- A. CONTRACTOR prior to placing a bid shall confirm the soil conditions and provide for excavating whatever materials that exist including rock and cemented coquina and provide new foundation materials.

**PART 2 - PRODUCTS**

**2.1 PRECAST CONCRETE WET WELLS**

- A. Pre-cast wet wells shall be considered to be moderately to extremely aggressive environments with Type II Portland cement and FDOT Class II concrete (3,400 minimum psi @28days) required.
- B. Except where otherwise specified pre-cast components shall consist of reinforced concrete pipe sections especially designed for wet well construction and manufactured in accordance with ASTM C 478 except as modified herein. The base shall be monolithic with the first wall section, or constructed by use of a water stop with construction key joint between base and first wall section.



- C.** Pre-cast, reinforced concrete bases, riser sections, flat slabs and other components shall be manufactured by wet cast methods only, using forms which will provide smooth surfaces free from irregularities, honeycombing or other imperfections.
- D.** Joints between components shall be the tongue and groove type and shall conform to AWWA C302. The circumferential and longitudinal steel reinforcement shall extend into the bell and spigot ends of the joints without breaking the continuity of the steel.
- E.** All pre-cast components shall be of CITY and or Engineer of Record approved design and of sufficient strength to withstand the loads imposed upon them. They shall be designed for a minimum earth cover loading of 130 pounds per cubic foot, an H-20 wheel loading, and an allowance of 30 percent in roadways and 15 percent in rights-of-way for impact. Bases shall have two cages of reinforcing steel in their walls, each of the areas equal to that required in the riser sections. Wall thickness shall not be less than 8 inches. Concrete top slabs shall not be less than 8 inches thick.
- F.** Lifting holes, if used in components, shall be tapered, and no more than two shall be cast in each section. Tapered, solid rubber plugs shall be furnished to seal the lifting holes. The lifting holes shall be made to be sealed by plugs driven from the outside face of the section only.
- G.** The barrel of the wet well shall be constructed of various lengths of riser pipe manufactured in increments of one foot to provide the correct height with the fewest joints. Openings in the barrel for sewers or drop connections will not be permitted closer than one foot from the nearest joint. Special base or riser sections shall be furnished as necessary to meet this requirement.
- H.** Sealing compound for pre-cast concrete wet joints shall be preformed plastic joint sealer conforming to Federal Specification SS-S-00210, "Ram-Nek" as manufactured by K. T. Snyder Co. Inc. or equal.
- I.** Surface Coating: EW-1 Aquapoxy as manufactured by Pro-Tech Coatings, Inc, Coal Tar Epoxy Bitumastic No. 300 M, as manufactured by KOP-COAT, Inc. or CITY accepted equal.

## **PART 3 - EXECUTION**

### **3.1 WET WELL BASES**

- A. Pre-cast bases shall be set at the proper grade and carefully leveled and aligned on a crushed stone or gravel foundation.

### **3.2 PRECAST SECTIONS**

- A. Set each pre-cast section plumb on a bed of sealant to make a watertight joint with the preceding unit. Point the joints and wipe off the excess sealant.
- B. Install sections, joints and gaskets in accordance with manufacturer's recommendations.
- C. Lifting holes shall be sealed tight with a solid rubber plug driven into the hole from the outside of the barrel and the remaining void filled with 1 to 2 cement-sand mortar.

### **3.3 WET WELL FILL CONCRETE**

- A. Fill concrete shall be properly formed to the sizes, cross sections, grades and shapes shown or as ordered.

### **3.4 INTERIOR FINISH**

- A. The interior of the wet well shall be acid etched with a 25% muratic acid solution and then neutralized prior to installing the fiberglass liner. The fiberglass liner AGRU-SURE fiberglass lining or approved equal. All surfaces shall be covered with fiberglass liner including the bottom of the wet-well.

### **3.5 STUBS FOR FUTURE CONNECTIONS**

- A. Provide pipe stubs for future connection to the wet well as noted on the plans.

### **3.6 WATERTIGHTNESS**

- A. There shall be no visible signs of leakage prior to placing the fiberglass liner. The tightness of the rubber boots at the manhole pipe connections shall be confirmed prior to backfilling of the area around the wet well.

### **3.7 PIPE CONNECTIONS**

- A.** Installation of pipe into wet well: The joining of pipe to wet well shall be by casting a sleeve or by core and seal method using a rubber type sleeve that extends at least 3 inches outside the walls. The pipe to rubber sleeve shall be secured to the pipe by stainless steel bands

**END OF SECTION**

**SECTION 02610**  
**PAVING, MILLING & RESURFACING**

---

**SUMMARY**

This Section sets forth the material and work requirements necessary to construct a complete finished compacted structural support base, stabilized subgrade and flowable fill.

**REFERENCE**

FDOT Standard Specifications for Road and Bridge Construction 2000 edition, Sections 300 through 334 for material and process requirements with deference to CITY requirements in the Public Works Roadway Details latest edition unless otherwise noted in the Contract Bid Documents.

**END SECTION**

**SECTION 02611**  
**BASE, STABILIZED SUBGRADE AND FLOWABLE FILL**

---

**SUMMARY**

This Section sets forth the material and work requirements necessary to construct a complete finished compacted structural support base, stabilized subgrade and flowable fill.

**REFERENCE**

The FDOT Standard Specifications for Road and Bridge Construction 2000 edition for material and process requirements with deference to CITY requirements in the Public Works Roadway Details latest edition unless otherwise noted in the Contract Bid Documents.

**FDOT BASE SECTIONS**

Sections 200 (@ LBR 100), 204 (in the form of recycled concrete @ LBR 130 )  
and 234.

**FDOT STABILIZED SUBGRADE SECTION**

Section 160 (Type B stabilizing only)

**FDOT FLOWABLE FILL SECTION**

Section 121

**END SECTION**

SECTION THREE:  
SWEETHEART TRAIL - BEACH STREET  
BELLEVUE AVE. - MARINA POINT

FPN 439868-1-54-01



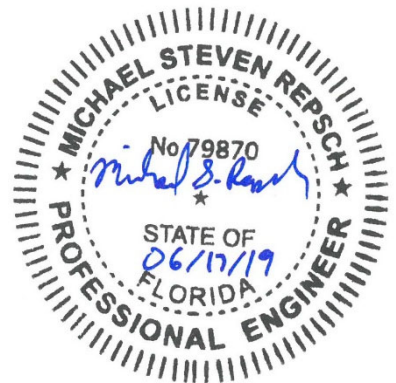
SPECIFICATIONS PACKAGE  
FINANCIAL PROJECT ID(S).439868-1-54-01  
STATE FUNDS  
DISTRICT FIVE  
VOLUSIA COUNTY

The July 2019 Edition of the Florida Department of Transportation Standard Specifications is revised as follows:

*I hereby certify that this specifications package has been properly prepared by me, or under my responsible charge, in accordance with procedures adopted by the Florida Department of Transportation.*

Signature and Seal:

Date:	_____
State of Florida,	June 17, 2019
Professional Engineer, License No.:	_____
Firm Name:	Michael S. Repsch, 79870
Firm Address:	_____
City, State, Zip Code:	Alta Planning + Design
Certificate of Authorization Number:	313 Datura Street, Suite 100
Page(s):	West Palm Beach, FL 33401
	31108
	1-11



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# **SPECIAL PROVISIONS**

-3-

FPID(S):439868-1-54-01

**SCOPE OF WORK – INTENT OF CONTRACT.**

**(REV 8-19-09) (FA 8-24-09) (7-19)**

ARTICLE 4-1 is expanded by the following:

The Improvements under this Contract consist of 0.23 miles of proposed concrete greenway and 0.08 miles of proposed roadway full depth reconstruction. Project elements include curb ramp and driveway construction, drainage modifications, signing and pavement markings, traffic signal modifications, and minor utility adjustments.

The summary of pay items for this project is listed in the Plans.

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – PREFERENCE TO STATE RESIDENTS.**

**(REV 1-13-12) (7-19)**

SECTION 7 is expanded by the following new Article:

**7-28 Preference to State Residents.**

Florida Statutes 255.099 (Chapter 2010-147, Section 50, Laws of Florida), providing for preference to residents of the State of Florida, is hereby made a part of this Contract:

Each contract that is funded by state funds must contain a provision requiring the Contractor to give preference to the employment of state residents in the performance of the work on the project if state residents have substantially equal qualifications to those of nonresidents.

As used in this Section, the term “substantially equal qualifications” means the qualification of two or more persons among whom the employer cannot make a reasonable determination that the qualifications held by one person are better suited for the position than the qualifications held by the other person or persons.

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – E-VERIFY.**

**(REV 6-13-11) (FA 6-16-11) (7-19)**

SECTION 7 is expanded by the following new Article:

**7-29 E-Verify.**

The Contractor shall utilize the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC –  
SCRUTINIZED COMPANIES.**

**(REV 3-22-18) (7-19)**

SECTION 7 is expanded by the following new Article:

**7-30 Scrutinized Companies.**

For Contracts of any amount, if the Department determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, the Department shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

For Contracts \$1,000,000 and greater, if the Department determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies with Activities in the Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the Department shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

# **MODIFIED SPECIAL PROVISIONS**

-6-

FPID(S):439868-1-54-01

**105 CONTRACTOR QUALITY CONTROL GENERAL REQUIREMENTS  
(7-18)**

SUBARTICLE 105-1.1.2 is deleted and the following substituted:

Test data shall not be required to be entered into any FDOT and/or Volusia County databases.

# **SUPPLEMENTAL SPECIFICATIONS**

-8-

FPID(S):439868-1-54-01

**TECHNICAL SPECIAL PROVISIONS.**

The following Technical Special Provisions are individually signed and sealed but are included as part of this Specifications Package.

The following new Section is added after Section 538.

**SECTION 542  
CONCRETE BUMPER GUARD**

**542-1 Description.**

Install concrete bumper guards as shown in the plans..

**542-2 Installation.**

Handle and install manufactured materials or articles in accordance with the manufacturer's instructions and the Standard Plans. Concrete bumper guards in accordance with the Plans, and Standard Plans, Index 520-001.

Submit shop drawings of stops, including installation details and attachment details to at-grade concrete and asphalt pavement, for approval.

**542-3 Method of Measurement.**

Concrete bumper guards, as shown in the Plans, shall be measured per each concrete bumper guard, furnished and installed.

**542-4 Basis of Payment.**

Prices and payments will be full compensation for all work and materials specified in this Section.

Payment will be made under:

Item No. 542-70 - Bumper Guards, Concrete - each.



**THIS COMPLETES  
THIS  
SPECIFICATIONS  
PACKAGE**

SECTION FOUR  
SWEETHEART TRAIL - BEACH STREET  
MARINA POINT - ORANGE AVENUE

FPN 439869-1-54-01



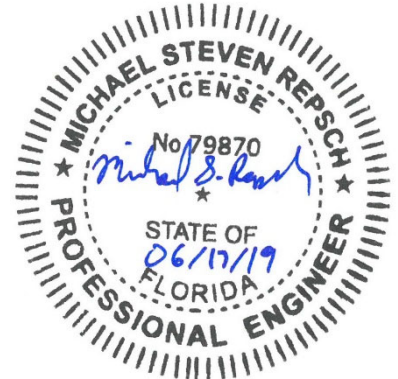
SPECIFICATIONS PACKAGE  
FINANCIAL PROJECT ID(S).439869-1-54-01  
STATE FUNDS  
DISTRICT FIVE  
VOLUSIA COUNTY

The July 2019 Edition of the Florida Department of Transportation Standard Specifications is revised as follows:

*I hereby certify that this specifications package has been properly prepared by me, or under my responsible charge, in accordance with procedures adopted by the Florida Department of Transportation.*

Signature and Seal:

Date:	June 17, 2019
State of Florida,	
Professional Engineer, License No.:	Michael S. Repsch, 79870
Firm Name:	Alta Planning + Design
Firm Address:	313 Datura Street, Suite 100
City, State, Zip Code:	West Palm Beach, FL 33401
Certificate of Authorization Number:	31108
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# **SPECIAL PROVISIONS**

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**SCOPE OF WORK – INTENT OF CONTRACT.**

**(REV 8-19-09) (FA 8-24-09) (7-19)**

ARTICLE 4-1 is expanded by the following:

The Improvements under this Contract consist of 0.66 miles of proposed concrete greenway. Project elements include curb ramp and driveway construction, drainage modifications, signing and pavement markings, traffic signal modifications, and minor utility adjustments.

The summary of pay items for this project is listed in the Plans.

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC –  
PREFERENCE TO STATE RESIDENTS.**

**(REV 1-13-12) (7-19)**

SECTION 7 is expanded by the following new Article:

**7-28 Preference to State Residents.**

Florida Statutes 255.099 (Chapter 2010-147, Section 50, Laws of Florida), providing for preference to residents of the State of Florida, is hereby made a part of this Contract:

Each contract that is funded by state funds must contain a provision requiring the Contractor to give preference to the employment of state residents in the performance of the work on the project if state residents have substantially equal qualifications to those of nonresidents.

As used in this Section, the term “substantially equal qualifications” means the qualification of two or more persons among whom the employer cannot make a reasonable determination that the qualifications held by one person are better suited for the position than the qualifications held by the other person or persons.

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – E-VERIFY.**

**(REV 6-13-11) (FA 6-16-11) (7-19)**

SECTION 7 is expanded by the following new Article:

**7-29 E-Verify.**

The Contractor shall utilize the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security’s E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC –  
SCRUTINIZED COMPANIES.**

**(REV 3-22-18) (7-19)**

SECTION 7 is expanded by the following new Article:

**7-30 Scrutinized Companies.**

For Contracts of any amount, if the Department determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, the Department shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

For Contracts \$1,000,000 and greater, if the Department determines the Contractor submitted a false certification under Section 287.135(5) of the Florida Statutes, or if the Contractor has been placed on the Scrutinized Companies with Activities in the Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the Department shall either terminate the Contract after it has given the Contractor notice and an opportunity to demonstrate the Department's determination of false certification was in error pursuant to Section 287.135(5)(a) of the Florida Statutes, or maintain the Contract if the conditions of Section 287.135(4) of the Florida Statutes are met.

# **MODIFIED SPECIAL PROVISIONS**

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