

Contract Bidding Documents

Heard Bridge Water Main Loop



**City of Wauchula
126 South 7th Avenue
Wauchula, Florida 33873**

Project No. 10371.09

Mandatory Pre-Bid Meeting:

Date: 9/30/2026

Time: 2:00 p.m.

Location: City of Wauchula Administration Building
126 South 7th Avenue
Wauchula, Florida 33873

Sealed Bids Due:

Date: 10/16/2026

Time: 2:00 p.m.

Location: City of Wauchula Administration Building
126 South 7th Avenue
Wauchula, Florida 33873

Prepared by

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DIVISION 1:
INSTRUCTIONS TO BIDDERS

INVITATION FOR BID

Sealed Bids will be received by the City of Wauchula located at 126 South 7th Avenue, Wauchula, Florida 33873, until 2:00 PM local time on October 16, 2026. Bids received after said time will be returned unopened. The Bidder shall be solely responsible for delivery of their Bid. Reliance upon mail or public carriers is at the Bidder's risk.

The principal features of the Work are:

1. Construction of approximately 5,300 linear feet of 8-inch PVC and 1,820 linear feet of 8-inch HDPE, including horizontal directional drills, fittings, valves, appurtenances, and restoration.
2. Complimentary activities such as pavement restoration where pavement is required to be disturbed.

The Contract(s) awarded under this Solicitation will be funded, in part, by an EDA grant and a grant from Florida Commerce and is subject to Federal requirements including American Iron and Steel. Neither the State nor any of its departments, agencies, or employees are or will be a party to this Solicitation or any resulting contract.

Plans and specifications are on file for inspection at the office of Chastain-Skillman | DCCM located at 205 East Orange Street, Suite 110, Lakeland, FL 33801 and at the City of Wauchula Administration Building located at 126 South 7th Avenue, Wauchula, Florida 33873.

Bidders may secure a complete bid set from Chastain-Skillman | DCCM located at 205 East Orange Street, Suite 110, Lakeland, FL 33801, Phone: (863) 646-1402. Bid sets are also available in electronic format. For an electronic copy, please send an email request to Robert A. Hungate, P.E., ahungate@dccm.com.

The Bidder is solely responsible for obtaining Bid Documents from the Project Engineer.

Sealed Bids shall reference the following on the outer envelope:

SEALED BID: BIDDER'S NAME AND ADDRESS
CITY OF WAUCHULA – HEARD BRIDGE WATER MAIN LOOP –
PROJECT NO. 1037.09

All Bids shall be publicly opened, read aloud and recorded at 2:00 PM local time on October 16, 2026 in the City of Wauchula Administration Building, 126 South 7th Avenue, Wauchula, Florida 33873.

Mandatory Pre-Bid Meeting: All interested Bidders must attend the entire meeting. Bidders not attending the Pre-Bid Meeting will have their Bids returned unopened. The Pre-Bid meeting will be held at 2:00 PM local time on September 30, 2026 in the City of Wauchula Administration Building, 126 South 7th Avenue, Wauchula, Florida 33873.

Questions: All questions regarding this Invitation for Bid shall be submitted in writing and delivered to the Engineer, Robert A. Hungate, P.E., Chastain Skillman | DCCM., 205 East Orange Street, Suite 110, Lakeland, FL 33801, or via email: ahungate@dccm.com.

SECTION 1.1: GENERAL INSTRUCTIONS TO BIDDERS

1.1.1 Defined Terms in the Instructions to Bidders

- A. The words and terms defined in DIVISION 3: TERMS AND CONDITIONS are hereby incorporated by reference into this part.

1.1.2 Minimum Qualifications for Eligibility to Bid

- A. Receipt of this Solicitation and other Bid and Contract related documents from the Owner or its designated representatives does not constitute the Owner's approval of the Bidder's qualifications.
- B. Bidders shall have the following minimum qualifications to be considered eligible to bid in response to this Solicitation. It is the responsibility of the Bidder to ensure and certify that it meets the minimum qualifications. Bidders not meeting all of the following criteria will not have their Bids considered for Award.
 - 1. Bidder shall be a licensed contractor in the State of Florida, in accordance with Chapter 489, Florida Statutes.
 - 2. Bidder shall have been in the business of performing projects of the same scope for at least the past five (5) years.
 - 3. Bidder shall demonstrate that it has successfully completed at least three (3) projects of similar scope and scale to the Work described herein, for at least two (2) different Florida government agencies within the past five (5) years. Bidder shall submit names and contact information for each referenced project. Factors the Owner may consider to make a determination of the Bidder's eligibility under this criterion include but are not limited to:
 - a. The Bidder's ability to perform work in a satisfactory manner as evidenced by the Bidder's past performance on other projects performed for the Owner, and
 - b. The Bidder's past performance of satisfactory work as evidenced by project descriptions submitted for three stated projects as part of the Bid and the Owner's verification of associated references; and
 - c. The Bidder's past performance as evidenced by any other information the Owner gathers or obtains during the Bid review process, including but not limited to information included on the Bidder's Qualifications questionnaire.
- C. The Bidder certifies, under penalty of perjury, that it holds all licenses, permits, certifications, insurances, bonds and other credentials required by law, Contract or practice to perform the Work. The Bidder also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Bidder shall immediately notify the Owner of the change.

1.1.3 Bid Security

- A. Each Bid is to be accompanied by a Bid Security made payable to the Owner in an amount at least equal to five (5) percent of the Bidder's maximum Bid Price and in the form of a Certified Check or Bid Bond. Failure to furnish the required Bid Security will disqualify the Bid.

1.1.4 Minority and Women's Business Enterprise Goals

- A. DIVISION 4: SUPPLEMENTAL CONDITIONS states the goals of Minority Business Enterprise (MBE) participation and Women's Business Enterprise (WBE) participation in the Work. The Bidder is expected to fully comply with the requirements for MBE and WBE participation as stated in DIVISION 4: SUPPLEMENTAL CONDITIONS of this document. Failure to comply with these requirements will disqualify the Bid.

1.1.5 Notice of Liquidated Damages

- A. In the event a Contract is awarded as a result of this Solicitation, the Contract will be subject to liquidated damages as set forth in DIVISION 3: TERMS AND CONDITIONS.

1.1.6 Florida Trench Safety Act

- A. The Bidder shall complete and submit with its Bid the Florida Trench Safety Act Acknowledgment form, in accordance with Section 553.60, Florida Statutes, et. Seq., when the Work includes trench excavations that exceed five (5) feet in depth and as written assurance that the Bidder shall comply with all applicable trench safety standards, laws, rules and regulations during performance of any Work awarded from this Solicitation.

1.1.7 Subcontractors

- A. The Bidder shall supply with their Bid a list of all Subcontractors and Suppliers that it intends to use for the Work. The Successful Bidder shall not be permitted to use Subcontractors and Suppliers other than those shown in the Bid unless good cause is shown and prior written consent is obtained from the Owner.
- B. If the Bidder plans to use a single Subcontractor or Supplier to perform over 50% of the Work, the Bidder shall obtain the Owner's approval prior to the opening of Bids. Failure to obtain the Owner's approval will disqualify the Bid.
- C. Bidder's choice of subcontractors or subconsultants must be approved by the Owner. While the Owner shall have the right to approve or reject each subcontractor or subconsultant, such approval shall not be unreasonably withheld.
- D. The Bidder may not use as a Subcontractor or Supplier, any Bidders that were rejected in the Bid process due to incomplete status or unqualified Bids.

1.1.8 Payment and Performance Bonds

- A. As stated in DIVISION 3: TERMS AND CONDITIONS of the Contract Documents, the successful Bidder shall be required to furnish a Payment Bond and a Performance Bond in accordance with Section 255.05, Florida Statutes, prior to the start of any Field Work.

1.1.9 Estimated Quantities Provided for Bidding Reference

- A. The Bidder understands and agrees that the Owner's estimated Contract amounts shall not obligate the Owner in any way to issue Purchase Orders under the Contract of this amount, or any amount of Work under the Contract. The Owner may, at its sole discretion, issue Purchase Orders under the Contract totaling more or less than the estimated amounts, or may award the Contract, and is under no obligation to issue any Purchase Orders under the Contract. In the event that quantities change after Award, the changes to price and/or scope shall be made in accordance with the terms and conditions stated in the Contract Documents.
- B. Any item not shown on the Bid Form, but that is shown in the Drawings or Technical Specifications section, that is required to perform the Work, or that is required as part of a complete and operable system, shall be included in the Bid Price.

1.1.10 Existing Site Conditions & Technical Data

- A. Where the Bidder visits sites, no Work or other disturbance is to be performed while at the site without written permission by the Owner in advance of the site visit. The Bidder shall comply with all safety requirements described in the Bid Documents and the Owner may require the Bidder to show proof of a minimum of \$1 million of general liability insurance.
- B. No reports of Hazardous Materials at the Site are known to the Owner or the Engineer, unless disclosed in the specifications.
- C. In the preparation of Drawings and Technical Specifications, the Engineer relied upon the following drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the Site:
 - 1. Topographical Survey provided by Chastain-Skillman, Inc.
- D. Copies of the reports (and drawings) itemized above that are not included with the Bid Documents may be examined at Chastain-Skillman, Inc. located at 205 E Orange Street, Lakeland, FL 33801 during regular business hours. These reports (and drawings) are not part of the Contract Documents but comprise additional "technical data" upon which the Bidder may rely as identified and established.
- E. The Bidder is solely responsible for obtaining and verifying all technical data necessary to submit its Bid.

1.1.11 Pre-Bid Clarifications & Addenda

- A. All questions regarding the Bid Documents must be submitted to the Procurement Representative identified in the Solicitation no later than ten (10) business days prior to the Bid Opening date. The Bidder shall promptly give the Owner written notice of any errors, conflicts or ambiguities it discovers in the Bid Documents.
- B. If the Bidder objects in any manner to the Terms and Conditions or Technical Specifications, the objection must be addressed in writing no later than ten (10) business days prior to the Bid Opening Date. The Owner will address the objection in an Addendum if the Owner believes that a clarification or change is necessary.
- C. The Owner may issue Addenda prior to the opening of Bids to change or clarify the intent of the Bid Documents. The Owner will issue written responses to questions and requests for clarifications received by the stated deadline in the form of Addenda, and will distribute Addenda to all Bidders who have attended the Pre-Bid Meeting and provided acceptable contact information.
- D. The Bidder shall be responsible for ensuring it has received all Addenda prior to submitting its Bid and shall acknowledge receipt of all Addenda by completing the Bidder's Representation section on the Bid Form in DIVISION 5: FORMS. All Addenda will become part of the Bid Documents and any resulting Contract Documents. Failure to acknowledge receipt of Addenda may be grounds for rejection of a Bid at the Owner's sole discretion.

1.1.12 Completing the Bid Form

- A. Bidders shall complete and submit the enclosed Bid Form with responses typewritten or written in ink. When a blank is marked "optional", the Bidder shall insert the words "No Bid" in the space provided if the Bidder does not choose to submit a price for that item.
- B. Failure to complete each blank with either a price or the words "No Bid" may disqualify the Bid. Failure to submit a Bid that addresses all parts of the Work may disqualify the Bid.
- C. The Bidder, or its authorized agent or officer of the firm, shall sign the Bid Form. Failure to sign the Bid Form may disqualify the Bid.
- D. Owner-approved erasures, interlineations or other corrections shall be authenticated by affixing in the margin, immediately opposite the correction, the handwritten signature of each person executing the Bid. Failure to authenticate changes may disqualify the Bid.
- E. The Owner will review the Bids to determine that they meet the specifications set for the Work in the Bid Documents. The Owner may disqualify any Bids that deviate from

the requirements of this Solicitation, and those that include unapproved exceptions, amendments, or erasures.

- F. Failure to complete and submit all additional forms and documentation required in the Bid Documents to accompany the Bid Form may disqualify the Bid.

1.1.13 Modification or Withdrawal of Bids

- A. The Bidder may modify or withdraw its Bid at any time prior to the advertised Bid Opening by giving written notice to the City of Wauchula, 126 South 7th Avenue, Wauchula, Florida 33873. The Owner shall not accept any modifications to Bids after the advertised Bid Opening. The Bidder shall not withdraw its Bid for a period of 120 calendar days following the advertised Bid Opening.

1.1.14 Submitting the Bid Documents

- A. The Bidder shall submit its Sealed Bid in response to this Solicitation no later than the Bid Due Date and Time stated in the Invitation for Bid, or as may be subsequently amended via Addenda. The Bid shall be sealed and the envelope clearly marked with the title stated in the Invitation for Bid and the Bidder's name and address. The Sealed Bid may be enclosed in another mail or courier service package.
- B. The Bidder shall submit one (1) original Bid and two (2) duplicates of the original Bid.
- C. All Bids must be received at the location and by the date and time stated in the Invitation for Bid, or as may be subsequently amended via Addenda. The Bids from all Bidders will be publicly read at the date and time advertised for the Bid Opening. Bids arriving after the advertised Bid Opening date and time and/or at an incorrect location will be returned to the Bidder unopened. Reliance upon third-party courier or delivery service is at the Bidder's risk.
- D. All information marked by the Owner or the Bidder as "Confidential Information" that is included in the Solicitation or that is submitted by the Bidder as part of its Bid shall be handled in accordance with the terms and conditions stated in DIVISION 3: TERMS AND CONDITIONS.

1.1.15 Opening of Bids

- A. The Owner will open Bids at the date, time and location stated in the Invitation for Bid, or as may be subsequently amended via Addenda. At the Bid Opening, the Owner will publicly open and read each Bid that was received prior to the advertised deadline for bid submissions, except those that have been properly withdrawn.
- B. The Owner has the right to waive any irregularities or informalities in the Bids.
- C. Copies of all Bids will be available for public inspection ten (10) business days after the Bid Opening date. Bidders may review opened Bids by contacting the designated Owner

Representative to arrange a mutually convenient time for such review at the Owner's offices.

1.1.16 Calculation of Bid Price

- A. The Owner will use the Bidder's base bid when making price comparisons for Award purposes.
- B. The Owner will consider alternate Bids only if the Bidder submits a base Bid in accordance with the Bid Documents. The Owner will review alternates on the Bid Form, and will reject or accept at the Owner's sole discretion.

1.1.17 Award

- A. The Owner will Award the Contract to the lowest, responsive and responsible Bidder whose Bid meets or exceeds specifications, in accordance with the Contract Documents. The Owner reserves the right to reject any/all Bids, in whole or in part, as deemed to be in the Owner's best interest.

1.1.18 Notice of Award

- A. The Owner intends to Award one Contract for as many items as possible to achieve maximum benefit from this Contract. The Owner may Award more than one Contract, based on certain groupings of items, which the Owner may revise or reorganize, or the Owner may exclude line items if in its best interest. In the event the Owner makes an award as a result of this Solicitation, the Owner will issue a Notice of Award, in writing and signed by an authorized Owner's Representative as notice to the Bidder that the Owner has deemed it the successful Bidder.
- B. The Notice of Award will be accompanied by relevant Contract Documents for execution. Unless expressly waived by the Owner, the Successful Bidder shall execute a Contract for the Work in a form acceptable to the Owner within the timeframe stated on the Notice of Award. If the Bidder fails to execute the Contract Agreement form or associated documents, or to obtain the necessary bonds, licenses or insurances as required, or if it fails to act on an Owner-issued Purchase Order ("PO"), the Owner may cancel the Award with no further liability to the Bidder, retain the Bid Security, and Award to the next lowest responsive and responsible Bidder.
- C. Upon receipt of the completed documents, the Owner will execute the Contract Documents and issue the Contractor one fully executed original copy. No other Owner action shall constitute acceptance of the Bid.

1.1.19 Notice to Proceed

- A. Upon receipt of the executed Contract, the required Payment Bond, Performance Bond, and compliant Certificate of Insurance, the Owner will issue a Notice to Proceed in

writing and signed by an authorized Owner's Representative as authorization for the Contractor to proceed with the Work, unless otherwise stated in the Contract.

- B. In the event that the Owner intends to authorize the Successful Bidder to proceed with Administrative Work only, or with only a portion of the Work, then the Owner shall state the specific limitations of such authorization in a written notice, and the Owner will issue a separate Notice to Proceed to authorize the Contractor to begin Field Work, when applicable, or to perform the remainder of the Work, or any portion thereof. The Contractor shall ensure that it is prepared to begin Field Work upon receipt of the Notice to Proceed. Any Work performed outside of this partial authorization shall be at the Contractor's risk and the Owner shall have no obligation to pay for such Work.

1.1.20 Certification and Representations of the Bidder

- A. By signing and submitting a Bid, the Bidder certifies and represents as follows:

- 1. That it has carefully examined all available records and conditions, including sites if applicable, and the requirements and specifications of these Bid Documents, including but not limited to all sample Contract Documents, Technical Specifications, Drawings, exhibits and attachments thereto, prior to submitting its Bid.
- 2. That every aspect of its submitted Bid, including the Bid Price and the detailed schedule for the execution of the Work, are based on its own knowledge and judgment of the conditions and hazards involved, and not upon any representation of the Owner. The Owner assumes no responsibility for any understanding or representation made by any of the Bidder's representatives during or prior to execution of the Contract unless such understandings or representations are expressly stated in the Contract and the Contract expressly provides that the Owner assumes the responsibility.
- 3. That the individual signing the bid is a duly authorized agent or officer of the submitting firm. Bids submitted by a corporation must be executed in the corporate name by the President or a Vice President. If an individual other than the President or a Vice President signs the bid, satisfactory evidence of authority to sign must be submitted with the bid. If the bid is submitted by a partnership, the bid must be signed by a partner whose title must appear under the signature. If an individual other than a partner signs the bid, satisfactory evidence of authority to sign must be submitted with the bid. The corporation or partnership must be in active status at the Florida Division of Corporations at the time of submission of the Bid.
- 4. That the submitting Bidder maintains in active status any and all licenses, permits, certifications, insurance, bonds and other credentials including not limited to contractor's license and business registration tax necessary to perform the Work. The Bidder also certifies that, upon the prospect of any change in the status of applicable licenses, permits, certifications, insurances, bonds or other credentials, the Bidder shall immediately notify the Owner of any change.

5. That it has read, understands and will comply with the Article 1.1.22 of this section entitled "Ethics."

1.1.21 Conflict of Interest

- A. Any Bidder bidding the construction phase of a project cannot at the time of Bid submittal, be affiliated with or have any direct or indirect ownership interest in the architect/engineer ("Designer") of record. The Bidder will also be prohibited from bidding if the Designer has any direct or indirect ownership interest in the Bidder. Should the Owner erroneously award a contract in violation of this policy, the Owner may terminate the contract at any time with no liability to Contractor, and Contractor shall be liable to the Owner for all damages, including but not limited to the costs to rebid the Project. The purpose of this policy is to encourage open, fair and competitive bidding and to eliminate any actual or perceived advantage that one bidder may have over another. In addition to this policy, Design Build projects are governed by the provisions of Section 287.055(9)(b) Florida Statutes.

1.1.22 Ethics

- A. By signing the Bid Form, the Bidder certifies this Bid is made without any previous understanding, agreement or connection with any other person, firm, or corporation submitting a Bid for the same Work other than as a Subcontractor or supplier, and that this Bid is made without outside control, collusion, fraud, or other illegal or unethical actions. The Bidder shall comply with all Owner ordinances, policies and procedures regarding business ethics.
- B. The Bidder shall submit only one Bid in response to this Solicitation. If the Owner has reasonable cause to believe the Bidder has submitted more than one Bid for the same Work, other than as a Subcontractor or Supplier, the Owner may disqualify the Bid and may pursue debarment actions.
- C. The Bidder shall disclose the name(s) of any public officials who have any financial position, directly or indirectly, with this Bid by submitting such information with its Bid. Failure to do so will disqualify the Bid. If the Owner has reason to believe that collusion exists among the Bidders, the Owner will reject any and all Bids from the suspected Bidders and may proceed to debar the Bidder(s) from future Work.
- D. In accordance with Section 287.133, Florida Statutes, the Owner will reject Bids from any persons or affiliates convicted of a public entity crime as listed on the Convicted Vendors list maintained by the Florida Department of Management Services. The Owner shall not make an Award to any officer, director, executive, partner, shareholder, employee, member, or agent active in management of the Bidder listed on the Convicted Vendor list for any transaction exceeding \$10,000 for a period of thirty-six (36) months from the date of being placed on the Convicted Vendor list.
- E. If the Bidder violates any requirement of this Section, the Bid may be rejected and the Owner may debar the offending companies and persons from future Work with the Owner.

1.1.23 Ex Parte Communication

- A. Ex Parte Communication is strictly prohibited. Failure to adhere to this policy will disqualify the noncompliant Bidder's Bid. The Owner's policy on Ex Parte Communication will not prohibit the following:
1. Meetings called or requested by the Owner and attended by the Bidders for the purpose of discussing this Solicitation, evaluation, or selection process including, but not limited to, substantive aspects of the Solicitation. Such meetings may include, but are not limited to, Pre-Bid meetings, site visits to the Owner's or the Bidders' facilities, interviews/negotiation sessions as part of the selection process, and other presentations by the Bidders, all of which are requested by the Owner and will be limited to topics specified by the Owner.
 2. The addressing of the Owner at public meetings advertised and conducted pursuant to Section 286.011, Florida Statutes.
 3. The filing of a written protest to any proposed Award to be made pursuant to this Solicitation, evaluation and selection process, which filing and prosecution shall give notice to all Bidders. Protest proceedings shall be limited to open public meetings advertised and conducted pursuant to Section 286.011, Florida Statutes with no Ex Parte Communication outside those meetings.
 4. Communications between the Owner representatives and the Bidder for routine matters arising from procurements other than this Solicitation.
 5. Written communication between potential Bidders and the Engineer provided copies of written communications are provided to all Bidders.

1.1.24 Prohibition Against Contingent Fees

- A. The Bidder warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Bidder, to solicit or secure a contract with the Owner, and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the Bidder, any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the Award or making of the Contract. For the breach or violation of these provisions, the Owner shall have the right to disqualify the Bid and pursue debarment or terminate the Contract without liability and at its discretion, to deduct from the Contract Price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

1.1.25 Protest of Bid and Award Process

- A. Bidders shall file any protests regarding this Solicitation in writing, and shall submit such to the Owner's Procurement Representative noted on the Solicitation no later than three (3) business days following the event giving rise to the protest. Failure to submit a written protest within the timeframe herein will constitute a waiver of the right to pursue a

protest.

- B. The written protest shall include at minimum the following information:
 - 1. Project or bid number of the solicitation protested;
 - 2. Title of solicitation protested;
 - 3. Specific identification of issue(s) protested; and
 - 4. Requested action for correction.
- C. The Owner's Procurement Representative will review the submitted information to ensure completeness and submit the issue to a committee comprised of the Owner's designated Project Manager for the Work, the City Manager and the Owner's Legal Counsel ("Protest Committee").
- D. The Protest Committee will review the protest and may request a presentation by the Bidder of the protested issue. The Protest Committee will issue a written decision within fourteen (14) calendar days of receipt of the written protest.

1.1.26 Owner's Reservations

- A. The Bid Documents provide potential Bidders with information to enable the submission of written offers. The receipt of Bid Documents is not a contractual offer or commitment by the Owner to purchase products or services.
- B. Bids and Bid Prices shall be warranted for a period of one-hundred twenty (120) days following the opening of Bids, and no Bid may be withdrawn during such time period.
- C. The Owner reserves the right to reject any or all Bids, or any part thereof, and/or to waive irregularities or informalities if such action is in its best interest. The Owner may reject any Bids that it deems incomplete, obscure or irregular including, but not limited to, Bids that omit a price on any one or more items for which prices are required, Bids that omit Unit Prices if Unit Prices are required, Bids for which the Owner determines that the Bid is unbalanced, Bids that offer Equal Items when the option to do so has not been stated, Bids that fail to include a bid bond, where one is required, and Bids from Bidders who have previously failed to satisfactorily complete Contracts of any nature for the Owner.
- D. The Owner reserves the right to cancel, postpone, modify, reissue and amend this Solicitation at its discretion. The Owner reserves the right to cancel or change the date and time of the bid opening at any time prior to the advertised time.
- E. The Owner may Award the Contract in whole or in part. In such cases whenever the Owner exercises any of these reservations, the Owner will make a reasonable effort to notify, in writing, all parties to whom Bid Documents were issued. The Owner may award multiple or split Contracts if it is deemed to be in the Owner's best interest.

1.1.27 Documents and Forms Included in the Bid Documents

- A. The reference to and/or inclusion of the Contract Documents and other Contract related forms in the Bid Documents shall in no way be construed as an Award of the Work, or any portion thereof, or as an intention to award the Work. The Owner reserves the right to alter, amend or delete any portion of these forms, to exclude any form, or to require additional forms not listed herein prior to execution of the Contract Documents.

SECTION 1.2: REQUIRED FORMS TO SUBMIT WITH BID

1.2.1 Bid Forms

- A. To submit a Bid in response to this Solicitation, all of the following forms must be completed and submitted as part of the Bid. Copies of the forms are contained in the Bid Documents. Additional copies may be requested by contacting the Owner.
1. Bid Form (form included in DIVISION 5: FORMS)
 2. Bid Security (form included in DIVISION 5: FORMS)
 3. Bidder's Qualifications and supporting information (form included in DIVISION 5: FORMS)
 4. Bidder's Statement of Disputes, Litigation, Arbitration, and Surety Completion, Last Three (3) Years (form included in DIVISION 5: FORMS)
 5. Drug-Free Workplace Certificate (form included in DIVISION 5: FORMS)
 6. Florida Trench Safety Act Acknowledgement (form included in DIVISION 5: FORMS)
 7. Non-Collusion Affidavit (form included in DIVISION 5: FORMS)
 8. Public Entity Crimes Statement (form included in DIVISION 5: FORMS)
 9. Tabulation of Subcontractors and Suppliers (form included in DIVISION 5: FORMS)
 10. Evidence of authority to do business in the State of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;

Contractor's License No.: _____.

[END OF SECTION]

DIVISION 2: AGREEMENT

This Agreement is made and entered into on _____ (“Effective Date”), by and between THE CITY OF WAUCHULA, a Florida municipality located at 126 South 7th Avenue, Wauchula, Florida 33873 (“Owner”) and _____, a [STATE OF INCORPORATION] corporation with principal offices at _____ [ADDRESS OF CONTRACTOR] (“Contractor”).

Whereas, the Owner issued an Invitation for Bid and all associated Bid Documents for the Work titled “City of Wauchula – Water System Main Line Connections,” and;

Whereas, the Contractor submitted a Bid in response to such Work, which was opened and accepted by Owner on _____, 2026, and;

Whereas, the Owner has determined that the Contractor’s Bid is the lowest responsive and responsible Bid for the Work and has issued the Contractor a Notice of Award to such effect;

Therefore, the Owner and the Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

SECTION 2.1: WORK

2.1.1 Completion of Work

- A. Contractor shall complete all Work as specified or indicated in the Contract Documents. Contractor’s scope of services on the Work shall not substantially differ from Contractor’s Bid unless agreed to in writing by the Parties or as otherwise. The principal features of the Work are described as:
 - 1. Construction of approximately 5,300 linear feet of 8-inch PVC and 1,820 linear feet of 8-inch HDPE, including horizontal directional drills, fittings, valves, appurtenances, and restoration.
 - 2. Complimentary activities such as pavement restoration where pavement is required to be disturbed.

SECTION 2.2: CONTRACT PRICE

2.2.1 Contract Price

- A. The Contractor shall perform the work for a not-to-exceed Contract Price of _____ [CONTRACT PRICE], or as may be amended in accordance with the Contract Documents, subject to the availability of lawfully appropriated funds.

2.2.2 Quantities

- A. The Contract Price includes the Contractor’s Bid Price. For items of the Work that are Unit Price, the prices shown on the Bid Form shall be used in determining the final Contract Price. As stated in the Bid Documents, estimated quantities provided on the Bid Form by the Owner are not guaranteed quantities. Actual quantities used in the Work may vary.

- B. Regularly during the Work, and upon the Owner's review of the Final Application for Payment, the Owner, or its designated representative, will determine actual quantities used in the Work, and the Owner may issue a Change Order if required to alter the Contract Price.

SECTION 2.3: CONTRACT TIME

2.3.1 Time of the Essence

- A. All time limits for Milestones, if any, Substantial Completion, and Final Completion and readiness for final payment as stated in the Contract Documents are of the essence.
- B. As further stated in Section 3.19.20 below, the Owner's agreement to an extension of any applicable deadline for Milestones, if any, Substantial Completion, or Final Completion, among any other deadlines provided herein, shall not constitute a waiver of the Owner's right to enforce the Contractor's compliance with other deadlines as provided herein, nor shall the Owner's failure to enforce compliance with any particular deadline or event operate as acquiescence or waiver of the Owner's right to enforce the Contractor's compliance with other such deadlines.

2.3.2 Days to Achieve Substantial Completion and Final Payment

- A. The Work will be required to have reached Substantial Completion within **210** calendar days after the issuance of the Notice to Proceed and completed and ready for final payment in accordance with the Contract Documents within **240** calendar days after the date when the Contract Time commences to run.

SECTION 2.4: CONTRACT ROLES AND RESPONSIBILITIES

The Owner and the Contractor may alter or amend the individuals named herein, or name additional representatives, by promptly providing written notice to the other party of any changes.

The following individuals shall have the responsibilities set forth in the Contract Documents for their respective roles:

2.4.1 Contract Administrator:

Name: Olivia Minshew, City Manager
Agency/Company: City of Wauchula
126 South 7th Avenue
Wauchula, FL 33873
(863) 773-3131

2.4.2 Project Engineer:

Name: Robert A. Hungate, PE
Agency/Company: Chastain-Skillman | DCCM
205 East Orange Street, Suite 110

Lakeland, FL 33801
(863) 646-1402

2.4.3 Funding Administrator:

Name: Mark Brewer, President
Agency/Company: Angie Brewer & Associates, LC
9080 58th Drive East, Suite 200
Bradenton, FL 34202
(941) 756-5800

2.4.4 Contractor's Representative:

Name: [TO BE COMPLETED BY OWNER PRIOR TO EXECUTION]
Agency/Company: [TO BE COMPLETED BY OWNER PRIOR TO EXECUTION]

2.4.5 Contractor's Supervisor:

Name: [TO BE COMPLETED BY OWNER PRIOR TO EXECUTION]
Agency/Company: [TO BE COMPLETED BY OWNER PRIOR TO EXECUTION]

SECTION 2.5: CONTRACT DOCUMENTS

2.5.1 Contents

- A. The following shall comprise the Contract Documents. The Owner shall generally consider this order of precedence in resolving any conflicts, errors or discrepancies:
1. Executed Amendments, Change Orders and Work Change Directives
 2. This executed Agreement
 3. Addenda to the Bid Documents
 4. Florida Department of Environmental Protection Supplementary Conditions
 5. Terms and Conditions, including the following Exhibits and Attachments thereto
 6. Notice of Award
 7. Notice to Proceed
 8. Payment Bond and Performance Bond
 9. Owner issued Purchase Orders
 10. Owner's Technical Specifications, Drawings, Plans, Exhibits and Attachments
 11. Contractor's Bid in response to the Invitation for Bid, including the Bid Form

- B. The figure dimensions on drawings shall govern over scale dimensions. Contract and detailed drawings shall govern over general drawings. The Contractor shall perform any Work that may reasonably be inferred from the Contract as being required, whether or not it is specifically called for, at no additional cost to the Owner. Work, materials or equipment described in words that, so applied, have a well-known technical or trade meaning shall be taken as referring to such recognized standards.
- C. By signing the Agreement, the Contractor represents that it has carefully examined the Contract Documents and agrees to perform the Work in accordance with the Contract Documents, as may be amended from time to time.

SECTION 2.6: NOTICES AND CORRESPONDENCE

2.6.1 Transmission Method

- A. All notices required or permitted under this Contract shall be in writing and shall be deemed received if sent by one of the following means: upon receipt if delivered by hand; one day after being sent by an express courier with a reliable system for tracking delivery; three days after being sent by certified or registered first class mail, postage prepaid and return receipt requested; or upon confirmed facsimile transmission provided that a copy shall be sent by another of the foregoing means.
- B. All notices shall be addressed by a party to the other party as indicated below. Either party may change its address from time to time upon prior written notice to the other specifying the effective date of the new address.

Owner

Attention: Olivia Minshew, City Manager
Address: City of Wauchula
126 South 7th Avenue
Wauchula, FL 33873

Contractor

Attention: [TO BE COMPLETED BY OWNER PRIOR TO EXECUTION]
Address: [TO BE COMPLETED BY OWNER PRIOR TO EXECUTION]

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate on the Effective Date first stated above.

OWNER

By _____

Date _____

(Corporate Seal)

CONTRACTOR

By _____

Date _____

(Corporate Seal)

Attest

[END OF SECTION]

Attest

DIVISION 3:
TERMS AND CONDITIONS

SECTION 3.1: DEFINED TERMS

3.1.1 Definitions

- A. Words and terms defined in this section shall have the same meaning throughout all parts of the Contract Documents. Where intended to convey the meaning consistent with that set forth in its definition, a defined word or term is marked by initial capitalization. DIVISION 6: TECHNICAL SPECIFICATIONS may define additional words and terms where necessary to clarify the Work. Unless otherwise stated in the Contract Documents, definitions set forth in DIVISION 6: TECHNICAL SPECIFICATIONS shall apply only within DIVISION 6: TECHNICAL SPECIFICATIONS.
1. Addendum/Addenda: A change or changes to the Solicitation issued in writing by the Owner and incorporated into the Solicitation and Contract Documents.
 2. Administrative Work: Actions primarily performed in an office environment and associated with preparing to perform or administer the Work including, but not limited to, preparing Work schedules, obtaining bonds, executing Contracts, securing resources and other actions specified in the Bid Documents, or otherwise prudent to ensure a timely, safe and otherwise compliant start and performance of Field Work. Administrative Work is not performed at the Work Location.
 3. Application for Payment: A document seeking payment to Contractor from Owner for all or a portion of the Work, in accordance with the Contract Documents, and including at a minimum the following items: the Contractor name and address, a description of the product(s) or service(s) rendered, a valid Owner PO number, the amount payable, the payee name and address, any associated forms and any other supporting documentation required by the Contract Documents.
 4. Approved Schedule: The approved progress schedule for performance of the Work approved by the Owner or the Owner's Representative, as most recently amended.
 5. Bid Documents/Bidding Documents: The documents titled Instructions to Bidders, the Invitation for Bid, the Bid Form, all sample forms to be included in the Bidder's Bid, the sample Contract Documents, including Technical Specifications and forms included to provide the Bidder with a complete understanding of the Work requirements, excluding any technical data or test results that are provided as additional information regarding Work Location conditions.
 6. Bid or Proposal: The document, including all forms and information, describing the Bidder's offer and submitted in response to this Invitation for Bids. Bid and Proposal shall be considered synonymous for the purpose of this Contract.
 7. Bid Price: The total dollar amount of the Bidder's offer including, but not limited to, all labor, materials, overheads, profits, other expense, and any and all other cost items incurred by the Bidder in successfully performing the Work in accordance with the Contract Documents.

8. Bidder: The respondent to this Solicitation.
9. Bond: A financial mechanism to guarantee a contractual obligation.
10. Change Order: A written order issued by the Owner after execution of the Contract to the Contractor, as may be recommended by the Engineer, signed by the Owner and authorizing an addition, deletion, or revision of the Work, or an adjustment in the Contract Price or the Contract Time. An executed Change Order resolves all issues related to price and time for the work included in the Change Order.
11. Contract: The Agreement for the Work executed by the Owner and Contractor as included in these Contract Documents.
12. Contract Administrator: The individual assigned by Owner, who is an employee of the Owner, to have authority over the Contract, including the authority to negotiate all elements of the Contract with the Contractor, authorize Change Orders within the maximum amount awarded, terminate the Contract, seek remedies for nonperformance including termination, and otherwise act on behalf of the Owner in all matters regarding the Contract. The Contract Administrator may authorize an Engineer and/or other Owner's Representative in writing to make minor changes to Field Work with the intent of preventing Work disruption.
13. Contract Documents: Contract Documents means the documents set forth in the executed Agreement form.
14. Contract Price: The total amount payable to the Contractor under the Contract, as set forth in the Agreement form, as most recently amended.
15. Contract Time: The number of calendar days or the period of time from when the written Notice to Proceed is issued to the Contractor to the date Contractor has agreed to complete the Work, as stated in the Agreement form, as most recently amended.
16. Contractor: The legal person, firm, corporation or any other entity or business relationship with whom the Owner has executed the Contract. Where the word "Contractor" is used it shall also include permitted successors and assigns.
17. Contractor Representative: The individual responsible for representing the Contractor in all activities concerning the fulfillment and administration of the Contract.
18. Contractor Supervisor: The individual employed or contracted by the Contractor to manage the Work on a day-to-day basis and ensure the Work is performed according to the Contract. The Contractor Supervisor may be authorized by the Contractor Representative to act on Contract matters. Such authorization shall be in writing and delivered to the Engineer and shall clearly state the limitations of any such authorization. In the event that the Contractor Supervisor and the Contractor

Representative is the same person, the Contractor shall notify the Engineer of such situation.

19. Defect or Defective: When used to modify the "Work," whether in lowercase or uppercase, Work that fails to meet the requirements of any required test, inspection or approval, and any Work that meets the requirements of any test or approval, but nevertheless does not meet the requirements of the Contract Documents.
20. Engineer: The individual assigned by the Owner (either an employee or a third party), who is a licensed professional engineer in the State of Florida, to provide engineering, design review, and/or construction management including, but not limited to, overseeing and resolving engineering/design issues with the Engineer for the Work, and conveying the Owner's instructions to the Contractor.

The Engineer's authority includes interpreting the technical portion of the Contract Documents, deciding on matters relating to the execution and progress of the Work and evaluating the Contractor's performance. The Engineer may stop the Work when deemed necessary by the Owner. The Engineer will receive and adjudicate any claim of ambiguity or error in the technical portion of the Contract Documents and shall reduce any determination to writing, and shall make a recommendation to the Owner. The Engineer is not a party to the Contract. The Engineer has no authority to approve changes to the Contract Price or Contract Time, or to commit the Owner to any expenditure of money except as expressly designated in writing by the Contract Administrator.

21. Environmental Requirements: All laws, ordinances, statutes, codes, rules, regulations, agreements, judgments, orders, and decrees, now or hereafter enacted, promulgated, or amended, of the United States, the states, the counties, the cities, or any other political subdivisions in which the Work Location is located, and any other political subdivision, agency or instrumentality exercising jurisdiction over the Owner, the Work Location, or the use of the Work Location, relating to pollution, the protection or regulation of human health, natural resources, or the environment, or the emission, discharge, release or threatened release of pollutants, contaminants, chemicals, or industrial, toxic or hazardous substances or waste or Hazardous Materials (as defined in this Contract) into the environment (including, without limitation, ambient air, surface water, ground water or land or soil).
22. Equal Item: Item a Bidder chooses to offer in place of offering the brand name or manufacturer's item specified on the Bid Document when the Bid Document clearly states that the Bidder may offer such an item.
23. Ex Parte Communication: Any communication pertaining to this Solicitation between a Bidder or protester (or their respective employees, agents, or representatives, or someone otherwise acting on behalf of Bidder) and the Owner (its members, employees, agents, and representatives other than the designated

Owner representatives in the Solicitation), during the Solicitation period through the Contract Award, and/or from the initiation of a protest through Contract Award or through protest resolution.

24. Field Order: An order given by the Owner's Representative, in writing or orally, to direct progress of the Work. A Field Order may authorize only minor variations to the Work as needed to ensure progress, and does not authorize the Contractor to incur additional costs, change the Contract Price or Contract Time.
25. Field Work: Actions associated with meeting the requirements of the Contract other than Administrative Work. Field Work is primarily performed at the Work Location.
26. Final Acceptance: The Owner's written notice to the Contractor that all Work as specified in the Contract has been completed to the Owner's satisfaction. Approval or recognition of the Contractor meeting a milestone or interim step does not constitute Final Acceptance of the Work. Final Acceptance is only applicable to the entirety of Work as specified in the Contract. Final Acceptance does not in any way limit the Owner's rights under the Contract or applicable laws, rules and regulations.
27. Final Completion: The point in time after which the Owner has accepted the Work, in accordance with DIVISION 3: TERMS AND CONDITIONS and the Contractor has fulfilled all requirements of the Contract Documents.
28. Hazardous Materials: Any substance which is or contains (i) any "hazardous substance" as now or hereafter defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. '9601 et seq.) ("CERCLA") or any regulations promulgated under or pursuant to CERCLA; (ii) any "hazardous waste" as now or hereafter defined in the Resource Conservation and Recovery Act (42 U.S.C. '6901 et. seq.) ("RCRA") or regulations promulgated under or pursuant to RCRA; (iii) any substance regulated by the Toxic Substances Control Act (15 U.S.C. '2601 et seq.); (iv) gasoline, diesel fuel, or other petroleum hydrocarbons; (v) asbestos and asbestos containing materials, in any form, whether friable or non-friable; (vi) polychlorinated biphenyls; (vii) radon gas; and (viii) any additional substances or materials which are now or hereafter classified or considered to be hazardous or toxic under Environmental Requirements (as hereinafter defined) or the common law, or any other applicable laws relating to the Licensed Property. Hazardous Materials shall include, without limitation, any substance, the presence of which on the Licensed Property, (A) requires reporting, investigation or remediation under Environmental Requirements; (B) causes or threatens to cause a nuisance on the Licensed Property or adjacent property or poses or threatens to pose a hazard to the health or safety of persons on the Licensed Property or adjacent property; or (C) which, if it emanated or migrated from the Licensed Property, could constitute a trespass.
29. Holidays: The following days: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, and Christmas Day.

- 30. Instructions to Bidders: The division of the Bid Documents labeled Instructions to Bidders.
- 31. Inspector: The individual(s) or company(ies) designated by the Contract Administrator to inspect and test the Contractor's performance and Contract compliance including materials, workmanship, safety, environmental compliance, project controls, administration and accounting, and other aspects of Contract compliance. The Inspector has no authority to approve changes to the Work, the Contract Price or Contract Time, or to commit the Owner to any expenditure of money except as expressly designated in writing by the Contract Administrator. The Inspector may or may not be the same individual as the Engineer. The Contract Administrator may give the Engineer authority to appoint an Inspector.
- 32. Notice of Award: The issuance of a Notice of Award by the Owner to the successful Bidder notifying the Contractor that they have been authorized by the Owner to perform the work. A Notice of Award shall not be considered a Notice to Proceed.
- 33. Notice to Proceed: The written notice duly authorized and delivered by the Owner that authorizes the Contractor to begin Field Work. When indicated by the Owner, a PO may also serve as a Notice to Proceed.
- 34. Owner: The City of Wauchula.
- 35. Owner's Representative: The Engineer, Inspector, and other persons designated by the Contract Administrator as the Owner's Representative acting in a capacity related to the Work or Contract under the authority of the Contract Administrator.
- 36. Overtime: Work approved in writing by the Contract Administrator that is required to be performed beyond an employee's scheduled workday or work week, including Work performed on Holidays.
- 37. Payment Bond: The statutory Performance Bond contemplated by Section 255.05, Florida Statutes.
- 38. Performance Bond: The statutory Payment Bond contemplated by Section 255.05, Florida Statutes.
- 39. Preconstruction Meeting: A meeting conducted after Award and prior to the start of any Field Work between the Owner and the Contractor. The purpose of the meeting may include, but is not limited to orientation, schedule, certification and permitting, and other preparatory or Work execution details.
- 40. Purchase Order (PO): A Work authorization document issued by the Owner with the words "Purchase Order" clearly marked across the top, a PO number used for reference shown on the front, a description of the Work or a listing of the applicable Contract Documents, an authorized Owner signature and stating the amount of lawfully authorized funds.

41. Quality Assurance: Actions that the Owner takes to assess the Contractor's performance under the Contract.
42. Quality Control: Actions that the Contractor takes to ensure it successfully completes the Work in full accordance with the Contract Documents.
43. Resident Project Representative (RPR): An employee or agent of the Engineer at the Work Location, acting as directed by and under the Engineer. The RPR's authority for this Contract is set forth in DIVISION 3: TERMS AND CONDITIONS.
44. Shop Drawings: Drawings, electronic and hard copy, that detail the fabrication, erection, layout and setting drawings; manufacturer's standard drawings; schedules; descriptive literature, catalogs and brochures; performance and test data; wiring and control diagrams; all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and method of construction as may be required to show the Engineer that the proposed materials, equipment or systems and the position thereof are in compliance with the requirements of the Contract Documents.
45. Site: The Work Location.
46. Solicitation: The Invitation for Bids (which may be electronic) issued by the Owner, or by a third-party on behalf of the Owner, to solicit Bids or Proposals from Bidders that includes the Bid Documents.
47. Specifications: The provisions contained in the Technical Specifications.
48. Standard of Care: The standards of skill and care ordinarily followed by contractors performing similar services for a project of similar scope and complexity in the same geographical area of the Work during the time in which the Work is performed.
49. Subcontractor: A provider of services or materials performing Work under contract for the Contractor.
50. Substantial Completion: The time when the Owner determines that the Work (or a specified part thereof) is sufficiently complete to be utilized for the purposes for which it is intended or ready for the Owner or other contractors to perform subsequent portions of the Work as stated in the Contract Documents. Recognition of the Work as Substantially Complete, as evidenced by issuance of a Certificate of Substantial Completion, does not represent the Owner's Final Acceptance of the Work.
51. Term: The period of time during which the Contract is in force, from formal Notice of Award to Final Completion, or termination. In some cases, and as expressly stated, some of the Contract requirements may extend beyond the Term of the Contract.

- 52. Technical Specifications: The division of the Contract Documents collectively labeled as the Technical Specifications, including any exhibits and attachments thereto. Technical Specifications have been prepared by the Owner or a third-party.
- 53. Unit Prices: The Bidder's charges, rounded to the nearest cent, to the Owner for the performance of each respective unit of Work as defined on the Bid Form for all items required for successfully performing the Work through Final Acceptance.
- 54. Work: Work includes the scope set forth in the Contract Documents together with all other additional necessities that are not specifically recited in the Contract, but can be reasonably inferred as necessary to complete all obligations and fully satisfy the intent of the Contract.
- 55. Work Change Directive: Written authorization recommended by the Engineer and signed by the Owner and issued to the Contractor after the Contract Effective Date recommending an addition, deletion or revision in the Work. A Work Change Directive shall not change the Contract Price or Contract Time, but shall be evidence that the parties expect the change ordered or documented to be incorporated into a subsequent Change Order.
- 56. Work Location: The place or places where the Work is performed, excluding the properties of the Contractor and/or the Subcontractor(s).

SECTION 3.2: PRELIMINARY MATTERS

3.2.1 Payment Bond and Performance Bond

- A. Within five (5) business days of receipt of Contract Documents, the Contractor shall furnish a Payment Bond and a Performance Bond in an amount equal to one-hundred percent (100%) of the amount of the Contract Price, made out to the Owner in forms and formats approved by the Owner, as security for the faithful performance of the Work of Contract, in accordance with Section 255.05, Florida Statutes. In no case shall the date on the bonds form be prior to that of the executed Contract. The surety must be authorized and licensed to transact business in Florida.
- B. A fully executed Payment Bond and Performance Bond must be recorded with the Clerk of Hardee County Court and delivered to the Owner before Work may commence. If the Contractor fails or refuses to furnish or record the required bonds, the Owner will retain the Contractor's Bid Security as liquidated damages.

3.2.2 Liquidated Damages

- A. If the Contractor fails to Substantially Complete the Work on or before the substantial completion date set forth in the Contract Documents, the Contractor shall pay the Owner the sum of \$500.00 per day for each and every calendar day, including Sundays and Holidays, starting on the contracted substantial completion date and continuing until the date that the Work is Substantially Completed.

- B. Following Substantial Completion, if the Contractor fails to complete any remaining Work within the Contract Time, the Contractor shall pay the Owner \$500.00 per day for each and every calendar day, including Sundays and Holidays, starting on the contracted final completion date and continuing until the date that the Work is completed.
- C. The Contractor understands and agrees that said daily sum is to be paid not as a penalty, but as compensation to the Owner as fixed and reasonable liquidated damages for losses that the Owner will suffer because of such default, whether through increased administrative and engineering costs, interference with the Owner's normal operations, other tangible and intangible costs, or otherwise, which costs are otherwise impossible or impractical to measure or ascertain with any reasonable specificity.
- D. Liquidated damages may, at the Owner's sole discretion, be deducted from any monies held by the Owner that are otherwise payable to Contractor.
- E. The Contractor's responsibility for liquidated damages shall in no way relieve the Contractor of any other obligations under the Contract.

3.2.3 Preconstruction and Progress Meetings

- A. Before starting field work, a preconstruction meeting will be held to: review the work; to review the work schedule; to establish procedures for submitting items including but not limited to applications for payment, the schedule of submittals, approving the applications for payment, and making payments; and, to establish a working relationship between the Owner and the Contractor.
- B. The Preconstruction Meeting shall be attended by, but not limited to, the Owner, the Engineer, the Contractor Representative and the Contractor Supervisor. The Contract Administrator will notify the Contractor in writing of the meeting time and location at least two (2) days prior to the meeting date.
- C. Construction progress meetings will be held at a frequency determined by the Owner, but shall not be more often than once per week. Such meeting(s) shall be attended by, but not limited to, the Owner, the Engineer, and the Contractor's Supervisor.

3.2.4 Contractor Review of Project Requirements

- A. The Contractor shall review the Work requirements and specifications prior to commencing Work. The Contractor shall immediately notify the Engineer in writing of any conflict with applicable law, or any error, inconsistency or omission it may discover. The Owner will promptly review the alleged conflicts, errors, inconsistencies or omissions, and issue a Change Order or Purchase Order, as appropriate if the Owner is in agreement with the alleged conflict, and issue revised specifications. Any Work the Contractor performs prior to receipt of approved Change Order or Purchase Order will be at the Contractor's sole risk and will not be reimbursed.

- B. The Contractor agrees that it will provide sufficient personnel to perform the Work and that it will perform the Work in a manner consistent with the Standard of Care set forth above and with the Approved Schedule. The Owner shall not be responsible for any delays caused by the Contractor's failure to adequately staff the Work.

3.2.5 Contractor's Documents at the Work Location

- A. The Contractor shall maintain at the Work Location for the Owner one record copy of all Contract Documents in good order and marked currently to record all Addenda and changes made during the Contract Term. The Contractor shall include copies of all Change Orders, Work Change Directives, Field Orders, and other written clarifications or interpretations with these record documents. These shall be available to the Owner's Representatives and shall be delivered to the Engineer upon completion of the Work or at the request of the Engineer. The Owner and the Owner's Representatives may use such documents in reviewing the Contractor's final Application for Payment.
- B. The Contractor shall also maintain detailed records of the Work for its own files. The Contractor shall make these records available to the Owner for inspection upon request. The Contractor shall maintain such records for three years after the final completion date.

3.2.6 Contractor's Field Office

- A. The Contractor shall provide its own office facilities at the Work Location, as required. Unless specifically listed herein, the Owner provides no Work Location facilities or Work Location area for the Contractor facilities of any kind such as field office and material storage. If the Contractor establishes a Work Location-based office, the Contractor shall provide and maintain adequate telephone facilities at this office during the full Term of the Contract. If the Contractor has a local business office, this office may serve as a Work Location office for this Contract, but the Contractor must maintain an operational cellular phone at the Work Location while performing Work.

3.2.7 Commercial Activities on the Work Location

- A. The Contractor shall not establish any commercial activities, or issue concessions or permits of any kind to third parties to establish commercial activities on lands owned or controlled by the Owner, or within the boundaries of the Work Location. The Contractor shall not allow its employees to engage in any commercial activities on the Work Location.

3.2.8 Compliance with Referenced Specifications

- A. All Work, materials, systems or operations specified by reference to standard trade specifications or to manufacturer's published specifications shall comply with the requirements of the referenced specifications, except as modified by the requirements of this Contract. The referenced specification used shall be the latest published edition that is in effect on the effective date of this Contract unless a particular edition is

specified. In case of a conflict, the specifications that contain the more stringent requirements will govern.

3.2.9 Licenses

- A. The Contractor shall comply with all licensing and/or certification requirements pursuant to applicable laws, rules and regulations. The Contractor shall secure all licenses as required for the performance of the Work and shall pay all fees associated with securing them. The Contractor shall produce written evidence of licenses and other certifications immediately upon request from the Owner.
- B. The Contractor shall ensure that any subcontractors or subconsultants retained to provide labor, services, or material for the Work are fully licensed and certified, as applicable.

3.2.10 Limitation of Accuracy of Informational Materials

- A. For all drawings, test results, inspections, and other informational materials included as part of the Contract Documents, the Contractor understands and agrees that any existing facilities shown, including underground, overhead, and surface structures, and other delineations, and any other informational items provided as part of the Contract Documents are for reference only and are not to be used by the Contractor as the only indication of Work conditions.
- B. Unless otherwise stated, the data furnished by the Owner or the Engineer to the Contractor, or by the Contractor to the Owner or the Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

3.2.11 Permits

- A. The Contractor shall secure, maintain, post as required, and pay for all building, plumbing, electrical, parking, roadway, railroad, shipping, freight, hazardous materials, and all other permits required for performance of the Work in full compliance with all applicable laws, rules and regulations. The Contractor shall perform all actions necessary to identify where permits are to be obtained and properly file for the permits.
- B. The Contractor shall comply with all conditions of permits issued for the Work, either directly or indirectly, issued by federal, state, or local governmental agencies, which are hereby incorporated as part of these Contract Documents. The Contractor shall be solely responsible for resolving any issues and bearing all expenses including any damages suffered by the Owner that result from a finding of noncompliance during performance

of the Work by any of the respective regulatory agencies including, but not limited to, all costs for delays, litigation, fines, fees of any kind, and other costs.

3.2.12 Work Information

- A. In the event the Contractor requires additional information regarding the scope, technical specifications, Work Locations, personnel requirements, or other information pertinent to the Work or Contract, the Contractor shall request such information or clarifications from the Engineer in writing. Within the bounds of the Engineer's authority, the Engineer may provide the requested information to the Contractor.

3.2.13 Engineer's RPR Status During Construction

- A. The RPR shall have the responsibilities set forth herein for this Contract.
- B. Review the progress schedule, schedule of Shop Drawings, and Sample Submittals and Schedule of Values prepared by the Contractor and consult with the Engineer concerning acceptability.
- C. Attend conferences and meetings with the Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
- D. Serve as the Engineer's liaison with the Contractor, working principally through the Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents. Assist the Engineer in serving as the Owner's liaison with the Contractor when the Contractor's operations affect the Owner's on-site operations. Assist in obtaining additional details or information from the Owner, when required for proper execution of the Work.
- E. Report to the Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to the Contractor clarifications and interpretations issued by the Engineer.
- F. Record the date of receipt of Samples and approved Shop Drawings. Receive Samples which are furnished at the Site by the Contractor. Notify the Engineer of availability of Samples for examination. Notify the Engineer and the Owner if work is begun without reviewed shop drawings.
- G. Consider and evaluate the Contractor's suggestions for modifications in the Drawings or Specifications and report such suggestions together with RPR's recommendations to the Engineer. Transmit in writing to the Contractor decisions as issued by Engineer.
- H. Review of Work and Defective Work:

1. Conduct on-site observations of the Contractor's work in progress to assist the Engineer in determining if the Work is, in general, proceeding in accordance with the Contract Documents.
 2. Report to the Engineer whenever RPR believes that any part of the Contractor's work does not conform to the Contract Documents or will imperil the integrity of the Work as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; advise the Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
- I. Inspections, Tests and System Startups:
1. Verify that tests, equipment and system start-ups and operating and maintenance training are conducted in the presence of appropriate the Owner's personnel and that the Contractor maintains adequate records thereof.
 2. Observe, record, and report to the Engineer appropriate details relative to the test procedures and system start-ups.
- J. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all of the Contractors, Subcontractors and materials and equipment Suppliers. Maintain records for use in preparing Work documentation.
- K. Reports:
1. Furnish to the Engineer periodic reports as required of progress of the Work and of the Contractor's compliance with the Progress Schedule and Schedule of Shop Drawings and Sample Submittals.
 2. Draft and recommend to the Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from the Contractor.
 3. Immediately notify the Engineer of the occurrence of any Site accidents, emergency, acts of God endangering the Work, damage to property, or discovery of Hazardous Materials.
- L. Review Applications for Payment with the Contractor for compliance with the established procedure for their submission and forward with recommendations to the Engineer, noting particularity the relationship of the payment requested to the Schedule of Values, Work completed and materials and equipment delivered at the Site but not incorporated in the Work.
- M. During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by the Contactor are applicable to the items actually installed

and in accordance with the Contract Documents, and have these documents delivered to the Engineer for review and forwarding to the Owner prior to payment for that part of Work.

N. Completion:

1. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of list of items to be completed or corrected.
2. Participate in a final inspection in the company of the Engineer, the Owner and the Contractor and prepare a final list of items to be completed and deficiencies remedied.
3. Observe whether all items on final list have been completed or corrected and make recommendations to the Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.

O. Limitations of the RPR's Authority: The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitute of material or equipment (including "or-equal" items).
2. Exceed limitations of the Engineer's authority as set forth in the Contract Documents.
3. Undertake any of the responsibilities of the Contractor, the Subcontractors, the Suppliers or the Contractor's Superintendent.
4. Advise on, issue directions regarding, or assume control over safety practices precautions, and programs in connection with the activities or operations of the Owner or the Contractor.
5. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by the Engineer.
6. Accept Shop Drawings or Sample submittals from anyone other than the Contractor.
7. Authorize the Owner to occupy the Project in whole or in part.
8. Advise on issue directions, or assume control over means, methods, techniques, sequences, or procedures for the Contractor's Work.

3.2.14 Conflict of Interest

- A. No member, officer or employee of the City during his/her tenure or for one (1) year after shall have any interest, direct or indirect, in this contract or proceeds thereof. The Contractor shall also include this statement in all subcontracts for this work.

SECTION 3.3: SUBSTANTIAL COMPLETION AND FINAL ACCEPTANCE

3.3.1 Acceptance of Work - After Receipt, Inspection, Usage and Testing

- A. The Contract Administrator will make the determination when Work is completed and there is Final Acceptance by the Owner, with consideration to the Engineer's and the Inspector's recommendations.
- B. Final Acceptance will be made by the Owner only in writing, and after adequate time to ensure the Work is performed in accordance with Contract Documents in accordance with Section 255.077, Florida Statutes. The Owner will reject any items delivered by the Contractor that are not in accordance with the Contract, and shall not be deemed to have accepted any items until the Owner has had reasonable time to inspect them following delivery or, if later, within a reasonable time after any latent defects in the work have become apparent.
- C. The Owner may partially accept the Work. If the Owner elects to accept nonconforming items, it may in addition to other remedies, be entitled to deduct a reasonable amount from the price as compensation for the nonconformity. Any Final Acceptance by the Owner, even if nonconditional, shall not be deemed a waiver, or settlement or acceptance of any Defect.

3.3.2 Substantial Completion

- A. The Contractor shall notify the Owner in writing when a portion of the Work is ready for Substantial Completion and can be utilized for the purposes for which it was intended. The Contractor shall identify any deficiencies in the Work. Owner will inspect the Work and will give the Contractor written notice of either acceptance of that portion of the Work or additional deficiencies. The Contractor shall correct all deficiencies prior to Substantial Completion of the Work.
- B. Whenever any portion of the Work is substantially complete and can be utilized for the purpose for which it was intended, the Owner may use it. Such use shall not be held in any way as a Final Acceptance of the Work or as a waiver of any provisions of the Contract.
- C. Upon determination that the Work meets the requirements for Substantial Completion, the Owner will issue a Certificate of Substantial Completion.

SECTION 3.4: PRICE & PAYMENTS

3.4.1 Application for Payment and Payment Terms

- A. The Contractor shall submit to the Engineer or the Engineer's RPR all Applications for Payment using the prescribed forms included in the Contract Documents and in accordance with the payment method agreed upon in these Contract Documents. The

Owner will pay the Contractor the amount requested less any authorized deductions or retainage set forth in the Contract Documents within thirty (30) days after receipt of an acceptable Application for Payment from the Contractor subject to the provisions stated below.

- B. The Owner may reject any Application for Payment within twenty (20) calendar days after receipt. The Owner will return the Application for Payment to the Contractor stating the reasons for rejection. Upon receipt of an acceptable revised Application for Payment, the Owner will pay the Contractor the revised amount within ten (10) calendar days.
- C. The Owner may withhold payment if the Owner reasonably believes the Contractor is in violation of any conditions or terms of the Contract Documents. Reasons for withholding payment to the Contractor include, but are not limited to, a reasonable belief by the Owner that it may suffer damages as a result of potential or actual claims attributable to the Contractor; inability of the Contractor to complete the Work in a timely manner; or any failure of the Contractor to perform its obligations hereunder. If the Owner reasonably believes Contractor is in violation of any conditions or terms of the Contract Documents and the Owner wishes to withhold payment from the Contractor, the Owner shall (i) provide the Contractor at least ten (10) days written notice of the Owner's intent to withhold such amount which states the basis for such withholding; and (ii) afford the Contractor an opportunity to cure or otherwise address the Commission's concerns.
- D. The Application for Payment may be subject to the review of the Owner's Representative for purposes of determining compliance with the DIVISION 4: SUPPLEMENTAL CONDITIONS.

3.4.2 Retainage

- A. Pursuant to Section 255.078, Florida Statutes, additional security for the proper performance of the Work, the Owner may deduct up to five percent (5%) retainage from the amount stipulated in the Invoice or Application for Payment and accepted by the Owner as eligible for payment. In accordance with Florida Statutes.
- B. In the case of early termination of the Contract, all payments made by the Owner against the Contract Price prior to notice of termination shall be credited to the amount, if any, due the Contractor. If the parties determine that the sum of all previous payments and credits exceeds the sum due the Contractor, the Contractor shall refund the excess amount to the Owner within ten (10) calendar days of determination or written notice.

3.4.3 Payment Method - Progress Payments and Schedule of Values

- A. For the purposes of this Contract, the Contractor shall refer to the DIVISION 6: TECHNICAL SPECIFICATIONS.

3.4.4 Final Application for Payment

- A. After the Contractor has, in the opinion of the Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up as-built record documents and other documents, the Contractor shall complete and submit to the Owner the final Application for Payment with consent of surety for final payment as notice that the Work, including the correction of all deficiencies, is complete. By submitting the final Application for Payment, the Contractor certifies the following:
1. That the Work has been satisfactorily completed;
 2. That no liens have attached against the property and improvements of the Owner;
 3. That no notice of intention to claim liens are outstanding;
 4. That no suits are pending by reason of the Work;
 5. That all workers' compensation claims known to the Contractor have been reported to the Owner;
 6. That the surety provides a release; and
 7. That no public liability claims are pending.
- B. Within ten (10) calendar days of receipt of the Contractor's final Application for Payment, the Engineer shall review the final Application for Payment and make a recommendation to the Owner. The Owner shall make final payment to the Contractor in accordance with the Application for Payment provisions of the Contract.

3.4.5 Prompt Payment to Subcontractors and Suppliers

- A. When the Contractor receives payment from the Owner for labor, services or materials furnished by Subcontractors and Suppliers that are hired by the Contractor, the Contractor shall remit payment due (less proper retainage) to those Subcontractors and Suppliers within fifteen (15) calendar days after the Contractor's receipt of payment from the Owner and obtain a Release of Lien for each payment made. Nothing herein shall prohibit the Contractor from disputing, pursuant to the terms hereof, all or any portion of a payment alleged to be due to its Subcontractors and Suppliers. In the event of such dispute, the Contractor may withhold the disputed portion of any such payment only after the Contractor has provided written notice to the Owner and to the Subcontractor and Supplier whose payment is in dispute, stating the amount in dispute and specifically describing the actions required to cure the dispute. The Contractor shall deliver such notice to the Owner and to the said Subcontractor or Supplier within ten (10) calendar days following the Contractor's receipt of payment from the Owner. The

Contractor shall pay all undisputed amounts due within the time frames specified herein.

- B. The Contractor shall submit a Release of Lien for the prior month's payment included in any Application for Payment.
- C. The prompt payment requirements herein shall, in no way, create any contractual relationship or obligation between the Owner and any Subcontractor, Supplier, or any third-party, nor create any Owner liability for the Contractor's failure to make timely payments as required. The Contractor's failure to comply with the prompt payment requirements, however, shall constitute a material breach of its contractual obligations to the Owner.

3.4.6 Taxes

- A. The Contractor shall include the cost of all applicable State and Local Sales Taxes in the submitted Bid Price. The Owner reserves the right to directly purchase any materials or equipment to reduce project costs due to State and Local Sales Taxes. A deductive Change Order will be drafted to remove any Owner Direct Purchases from the Contract.
- B. The Contractor shall be responsible for the payment of any applicable State and Local taxes relating to the purchase of equipment and materials required for the completion of this project.

3.4.7 Allowances

- A. When the Contract Documents indicate that the Owner has provided the Contractor with an allowance for specified portions of the Work, the Contractor shall provide such Work in a manner acceptable to the Owner.
- B. Allowance items shall include all costs to the Contractor (less any applicable trade discounts), including all applicable taxes, costs for unloading and handling materials and equipment at the Site, labor, installation, overload, profit, and other expenses set forth in the Contract Documents as part of the allowances.

SECTION 3.5: INSURANCE & INDEMNITIES

3.5.1 Environmental Indemnity

- A. The Contractor shall hold harmless, indemnify, and defend the Owner and the Engineer, including without limitation, its officers, directors, members, representatives, affiliates, agents and employees, successors and assigns (the "Indemnified Parties") and will reimburse the Indemnified Parties from and against any and all claims, suits, demands, judgments, losses, costs, fines, penalties, damages, liabilities and expenses (including all costs of cleanup, containment or other remediation, and all costs for investigation and defense thereof including, but not limited to, court costs, reasonable expert witness

fees and attorney fees) arising from or in connection with (a) the Contractor's, including, but not limited to, its agents, affiliates or assigns ("Parties"), actions or activities that result in a violation of any environmental law, ordinance, rule, or regulation or that leads to an environmental claim or citation or to damages due to the Contractor's or other Parties' activities, (b) any environmental, health and safety liabilities arising out of or relating to the operation or other activities performed in connection with this contract by the Contractor or any Party at any time on or after the effective date of the contract, or (c) any bodily injury (including illness, disability and death, regardless of when any such bodily injury occurred, was incurred or manifested itself), personal injury, property damage (including trespass, nuisance, wrongful eviction and deprivation of the use of real property) or other damage of or to any person in any way arising from or allegedly arising from any hazardous activity conducted by the Contractor or any Party. The Owner will be entitled to control any remedial action or any proceeding relating to an environmental claim. This indemnification agreement is separate and apart from, and is in no way limited by, any insurance provided pursuant to this Contract or otherwise. This section relating to indemnification shall survive the Term of this Contract, and any holdover and/or Contract extensions thereto, whether such Term expires naturally by the passage of time or is terminated earlier pursuant to the provisions of this Contract.

3.5.2 Indemnification

- A. The Owner may withhold payment if the Owner reasonably believes the Contractor is in violation of any conditions or terms of the Contract Documents. Reasons for withholding payment to the Contractor include, but are not limited to, a reasonable belief by the Owner that it may suffer damages as a result of potential or actual claims attributable to the Contractor; inability of the Contractor to complete the Work in a timely manner; or any failure of the Contractor to perform its obligations hereunder. If the Owner reasonably believes Contractor is in violation of any conditions or terms of the Contract Documents and the Owner wishes to withhold payment from the Contractor, the Owner shall (i) provide the Contractor at least ten (10) days written notice of the Owner's intent to withhold such amount which states the basis for such withholding; and (ii) afford the Contractor an opportunity to cure or otherwise address the Commission's concerns.

3.5.3 Insurance Requirements

- A. Before starting and for four years beyond Final Acceptance of the Work, and without limiting its liability under the Contract, the Contractor shall procure and maintain at its sole expense, insurance of the types and in the minimum amounts stated below:

Schedule	Amount
<u>Workers' Compensation</u> Florida Statutory Coverage and Employer's Liability (including appropriate Federal Acts)	Statutory Limits (Workers' Compensation) As required by law (Employer's Liability)

Contractor's General Liability

Completed Operations and Products
Liability

\$1,000,000/occurrence, \$2,000,000 annual
aggregate

Property damage and bodily injury

Personal Injury Liability

Property Damage Liability insurance will provide Explosion, Collapse and Underground Hazards (XCU Coverage) as appropriate

Automobile Liability

Bodily Injury \$2,000,000/person

Property Damage \$400,000/accident

Contractual Liability

Bodily Injury \$2,000,000/accident

Property Damage \$1,000,000 annual aggregate

Builder's Risk Insurance

Amount to be determined by Owner

- B. The Contractor's General Liability policies shall be effective for four (4) years after the Work is complete. The above Indemnification provision is separate and is not limited by the type of insurance or insurance amounts stated above.
- C. The Contractor shall specify the Owner and the Engineer as additional insureds for all coverage except Workers' Compensation and Employer's Liability. Such insurance shall be primary to any and all other insurance or self-insurance maintained by the Owner.
- D. Such insurance shall be written by a company or companies licensed to do business in the State of Florida and satisfactory to the Owner. Prior to commencing any Work under this Contract, certificates evidencing the maintenance of the insurance shall be furnished to the Owner for approval.
- E. The Contractor's and its Subcontractors' Certificates of Insurance shall be mailed to the Owner at City of Wauchula, 126 South 7th Avenue, Wauchula, Florida 33873.
- F. The insurance certificates shall provide that no material alteration or cancellation, including expiration and non-renewal, shall be effective until thirty (30) days after receipt of written notice by the Owner.
- G. Any subcontractors of the Contractor shall procure and maintain the insurance required of the Contractor hereunder during the life of the subcontract. Subcontractors' insurance may be either by separate coverage or by endorsement under insurance provided by the Contractor.

3.5.4 Title and Risk of Loss

- A. Ownership, risks of damage to or loss of the Work shall pass to the Owner upon Final Acceptance of the work. The Contractor shall assume all risk of loss or damage to the Work while items are in transit and/or in the Contractor's custody until such time that the Owner issues written notice of Final Acceptance of the work.

SECTION 3.6: GENERAL PERFORMANCE OF WORK

3.6.1 Care of Property Owners

- A. The Contractor agrees to provide excellent customer service throughout the execution of the Work during both scheduled Work hours and Overtime in the manner, as a minimum, as set forth below:
 - 1. The Contractor shall notify the affected property owners prior to any planned outages, line flushing, valve simulations and driveway construction. The notification will be produced by the Contractor and approved by the Owner's Representative.
 - 2. Within one (1) business day of receiving a concern from a property owner regarding the Work, the Contractor shall notify the Engineer in writing of each customer concern reported directly to the Contractor's personnel. Such notification shall include, as a minimum: the Contractor's name, date and time the concern was communicated to the Contractor, the name, address and phone numbers for the affected party, the nature of their concern and any action that was taken or any action currently underway to resolve the concern.

3.6.2 Workmanship

- A. In addition to performing its Work in accordance with the Standard of Care, the Contractor shall perform all Work in a safe, workmanlike and professional manner, and so as to render a neat and uniform appearance. The Contractor shall handle all material in such a way as to preserve its finish and protective coatings from damage. General arrangement shall be satisfactory to the Engineer.

3.6.3 Work Location Cleanliness

- A. The Contractor shall, at all times, keep the Work Location free from an accumulation of waste materials or rubbish caused by its operations. At the completion of the Work, the Contractor shall remove all waste materials and any rubbish from and about the project, as well as any tools, construction equipment, machinery and surplus materials, in accordance with applicable laws, rules and regulations. If the Contractor fails to clean up at the completion of the Work, the Owner may do so as provided elsewhere in the Contract and charge the cost thereof to the Contractor.

3.6.4 Surveying

- A. Unless specifically stated in the Contract Documents as being provided by the Owner, the Contractor shall be responsible for all surveying necessary to commence and perform this Work. The Contractor shall employ a land surveyor registered in the State of Florida to reference and restore all property corners and/or monuments that may have been disturbed and to ensure accurate horizontal and vertical control during the construction of this project and for staking locations for new structures. Height and spacing of stakes are to be as specified elsewhere herein or as directed by the Engineer.

- B. All Work shall be done to the lines, grades and elevations shown on the drawings. Any Work improperly located may be ordered removed and replaced at the Contractor's expense. The Contractor shall be responsible for making its own determination of water table variations and shall not assume that any water levels shown by the aforesaid boring data will necessarily be maintained at the level indicated. The Contractor shall investigate the conditions above or below the surface of the ground as it may deem necessary for the proper and timely performance of its Work including, but not limited to, the making of borings.

SECTION 3.7: SCHEDULES

3.7.1 Preliminary Schedules

- A. Within ten (10) calendar days following the Effective Date of the Agreement, the Contractor shall submit to the Engineer the following items:
 - 1. Preliminary Progress Schedule stating days or dates for starting and completing the various stages of the Work in an orderly manner within the Contract Times, indicating any milestones specified in the Contract.
 - 2. Preliminary Schedule of Submittals, showing a reasonable schedule for reviewing and processing required submittals
 - 3. Preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and reasonably subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Prices shall include all overhead and profit.
 - 4. Preliminary Schedule of Progress Payments (Draw Schedule).
- B. No later than ten (10) calendar days prior to the date for the submittal of the first Application for Payment, the Contractor and the Engineer shall meet to review the acceptability of the Progress Schedule, the Schedule of Submittals and the Schedule of Values. The Contractor shall have an additional ten (10) calendar days following such meeting to make any adjustments and to resubmit the schedules.
- C. The Engineer's approval of the any of the Schedules shall not relieve the Contractor of its sole responsibility for the Progress Schedule, the sequence and scheduling of Work, and the progress of the Work.
- D. No progress payments shall be made to the Contractor until the Engineer has approved the Schedules.
- E. Upon reasonable written request from the Owner, the Contractor shall furnish to the Owner such evidence as the Owner may reasonably require relating to the Contractor's ability to fully perform the Work in the manner and within the time specified by this Agreement.

3.7.2 Work Days

- A. The work schedule is established on the basis of working five (5) days per week, eight (8) hours per day. The Owner may require the Contractor to base its schedule on an accelerated Work Schedule or multiple shifts. The Contractor shall not schedule work on Holidays without obtaining prior written approval from the Owner.
- B. The Contractor shall, at no additional cost to the Owner, increase or supplement its working force and equipment and perform the Work on an Overtime or multiple shift basis when directed by the Owner and upon notification that the Contractor is behind schedule. The Contractor shall submit a revised schedule in writing demonstrating the Contractor's schedule recovery plans.
- C. The Contractor understands and agrees that the rate of progress set forth in the Approved Schedule already allows for ordinary delays incident to the Work. No extension of the Contract Time will be made for ordinary delays, inclement weather (except as set forth in Section 19, "Force Majeure"), or accidents, and the occurrence of such events will not relieve the Contractor from the requirement of meeting the Approved Schedule.

3.7.3 Changes to the Progress Schedule

- A. The Contractor may submit proposed revisions to the Progress Schedule to the Engineer for review provided that they do not change the Contract Time, and the Engineer may adjust the Progress Schedule from time to time.
- B. Proposed changes to the Progress Schedule that change the Contract Time will only be made in accordance with Section 14, "Changes to Work." Adjustments to the Contract Time shall only be made via Change Order.
- C. The Contractor shall refer to the DIVISION 6: TECHNICAL SPECIFICATIONS for additional information regarding Progress Schedules.

SECTION 3.8: MATERIALS, TOOLS & EQUIPMENT

3.8.1 Temporary Utilities

- A. The Contractor shall furnish and install all temporary water, electricity and other utilities required to accomplish the Work. The Contractor shall obtain the water required for carrying out the Work from fire hydrants, existing water main connections, or new connections approved by the Owner. The Contractor shall install a back flow preventer and water meter assembly if construction water is necessary. Upon Substantial Completion of Work, the Contractor shall remove all evidence of temporary connections and lines.
- B. Prior to initiating any construction Work, the Contractor shall coordinate and schedule the provision of temporary utility service required during construction and arrange for the permanent installation and connection of utilities for the completed Work.

3.8.2 Material Delivery Locations

- A. The Contractor shall notify, in writing, the Engineer of all planned material delivery/receiving locations. Such notification shall be prior to initiation of shipment. The Engineer will provide the Contractor with specific written approval for each delivery/receipt location, which will not be unreasonably withheld.

3.8.3 Storage of Equipment

- A. The Contractor shall be responsible for all storage of materials, equipment, vehicles, tools, and all other items associated with the Work. Such storage shall comply with applicable regulations appropriate for the items being stored to ensure suitable care for items and protection from theft, vandalism, or inappropriate use. The Contractor is solely responsible for the costs for such storage, unless otherwise indicated in the Contract Documents, and any costs associated with noncompliant storage including, but not limited to, loss and damage to items. In the event that the Owner directs the Contractor to stop the Work, costs associated with storing equipment or materials will be compensated in accordance with the provisions stated herein in Section 14, "Change in Work." The Contractor shall ensure that the Engineer has access to Work-related storage on an as needed basis during regular Work Hours and Overtime.

3.8.4 Contractor Laydown Area

- A. In the event the Contractor decides to utilize public or private property as a laydown area, the Contractor shall enter into a written agreement with the entity or individual who owns the property. The Owner shall have access to all laydown areas. Upon submission of the Contractor's first Invoice or application for payment to the Owner, the Contractor shall provide the Owner with a copy of such signed written agreement. The Contractor shall submit to the Owner a letter of release from the entity in connection with Contractor's final Application for Payment to the Owner.

3.8.5 Substitutions

- A. Whenever materials or equipment are specified or described in the Contract by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required.
- B. Materials or equipment of other suppliers may be accepted by the Engineer if sufficient information is submitted by the Contractor to allow the Engineer to determine that the material or equipment proposed is equivalent or equal to that named.
- C. The Contractor shall make written application to the Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified.
- D. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice the Contractor's completion of the Work within the Contract Time,

whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other Contract directly with the Owner for Work on the Contract) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fees, royalties, permits or any other costs.

- E. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement service shall be indicated.
- F. The application shall also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other Companies affected by the resulting change, all of which shall be considered by the Engineer in evaluating the proposed substitute.
- G. Requests for review of substitute items of material and equipment will not be accepted by the Engineer from anyone other than the Contractor.
- H. The Engineer may require the Contractor to furnish, at the Contractor's expense, additional data about the proposed substitute.
- I. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract, the Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the Engineer, if the Contractor submits sufficient information to allow the Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract.
- J. The Engineer will be allowed a reasonable time within which to evaluate each proposed substitute; such time shall not be deemed justification for an extension of the Contractor's time for completion of the Contract.
- K. The Engineer will be the sole judge of acceptability, and no substitute shall be ordered, installed or utilized without the Engineer's prior written notice, which shall be evidenced by a Change Order.
- L. The Owner may require reimbursement for the cost associated with the Engineer's evaluation of substitutions.
- M. The Owner may require the Contractor to furnish, at the Contractor's expense, special performance guarantee bonds or other surety with respect to any substitution.

3.8.6 Disposition of Salvage Material

- A. All material to be removed from the Work Location, relocated or salvaged, shall be inspected by the Engineer immediately prior to removal, and the Engineer's decision as to the salvageability shall be final. Such material that can be salvaged, in the opinion of the Engineer, shall be stored at the Work Location on-site by the Contractor, as and where directed by the Engineer, or delivered to a location as directed. Under no circumstances may existing structures, plant or facilities be removed or demolished without obtaining prior written approval from the Contract Administrator.

3.8.7 Tools and Equipment

- A. All tools and equipment used in the performance of the Work shall be used as intended by the manufacturer and in accordance with manufacturer operating manuals and industry practices, whichever is more stringent. The Contractor shall ensure that all tools and equipment used in the performance of the Work shall be of the size and quality suitable for safe and efficient performance of the Work. If the Contractor-provided tools and equipment do not meet these requirements, or if in the sole opinion of the Owner formed after considering relevant factors, the tools or equipment are inappropriate for performance of the Work, the Contractor agrees to remove the unacceptable tools and equipment and obtain tools and equipment the Owner considers suitable. Such replacement shall be entirely at the Contractor's expense, and no change to Contract Time will be allowed.
- B. The Contractor is responsible for furnishing the security of any and all tools and equipment required to perform the Work.

SECTION 3.9: SAFETY & SECURITY

3.9.1 Safety and Protection Precautions

- A. The Contractor shall comply with all applicable federal, state and local laws, ordinances, all Owner procedures and policies, and orders of any public body having jurisdiction for the safety of persons or protection of property. The Contractor understands and agrees that violation of any provision of this clause is grounds for immediate termination of the Contract and the Contractor is responsible for all Owner damages associated with such termination.
- B. The Contractor shall ensure that Subcontractors and their personnel have all the necessary personal protective equipment and training needed to perform the Work safely.
- C. The Contractor understands and agrees that it is responsible for paying all costs associated with providing a safe work environment including, but not limited to, any costs associated with any Owner directed safety improvements. The Contractor further understands and agrees that it is solely responsible for the safety of personnel and property associated with the Work, and that any actions taken by the Owner or the Owner's Representatives to prevent harm to persons or damage to equipment does not, in any way, relieve the Contractor of this responsibility.
- D. The Contractor's Representative, or alternatively, the Contractor's Supervisor, shall be designated as the Contractor's individual responsible for the prevention of accidents.
- E. The Contractor shall notify the police and fire departments as to its Work Location in order to ensure prompt response in an emergency.

3.9.2 Emergency Events

- A. In the event that a system-wide emergency arises during the Term of this Contract for which the Owner requires assistance from the Contractor including, but not limited to, severe storms, large-scale fires, floods, and terrorist attacks, the Contractor acknowledges the importance of Owner infrastructure and agrees to support, with all its resources, skills and capabilities, and the maximum extent possible, all restoration efforts of the Owner. The Owner shall notify the Contractor when an emergency event occurs and the Contractor agrees to mobilize its full resources immediately. In the event conditions are such that an emergency event is likely in progress, but the Contractor has not been notified by the Owner, the Contractor shall make all efforts to contact the Owner to determine if and how it should respond. The Owner agrees to reimburse the Contractor for its actual costs incurred, plus overhead and profit, the total not exceeding twelve percent (12%), and any one-time expended cost incurred as a result of supporting the Owner during the emergency event.

3.9.3 Emergency Procedures

- A. In emergencies affecting the safety of persons, the Work or property at the Work Location or any other area adjacent thereto, the Contractor, without special instructions or authorization from the Owner, is obligated to act to its best ability, to prevent threatened damage, injury or loss to the Work, any persons, or property. The Contractor shall give the Owner prompt written notice describing the emergency, its cause, actions taken, injuries and casualties, property damage, other damages, and impact on continued performance under this Contract.

3.9.4 Storm Preparedness

- A. In the event of a Hurricane Warning, Tropical Storm Warning, or other large storm affecting the Work Location, the Contractor shall secure, or shall remove and store all equipment and materials at the Work Location including, but not limited to, cones, barricades, lights and signs. The Contractor shall begin taking such precautions as necessary to secure the Work Location upon official issuance of mandatory evacuation of the area of the Work Location and no later than twenty-four (24) hours prior to predicted arrival of tropical storm or hurricane force winds, or when notified by the Owner to do so. These activities are considered a regular part of the Work, regardless of the frequency they are required.

3.9.5 Weather Protection

- A. The Contractor shall provide proper facilities, take all necessary precautions and assume the entire cost for protecting the Work against weather conditions and for handling all storm, flood and ground water, sewage, or other seepage, that may be encountered during the performance of the Contract. The Contractor shall provide for such contingencies and for carrying on the Work in freezing weather by methods that meet with the approval of the Engineer. If the Contractor fails to provide such protection, or in the event of an emergency, the Owner may provide such protection at the Contractor's expense.

3.9.6 Project Security

- A. The Contractor shall provide, at its expense, on-site security personnel at any time the facility's perimeter is unsecured, including but not limited to, alarms disabled, fences or gates down, traffic flows that require gates to be opened repeatedly and/or for more than one hour of the work day. The Contractor shall schedule security personnel. Where existing lighting is disabled or otherwise impacted by the Work, the Contractor shall provide temporary lighting equal to or exceeding that which exists.

3.9.7 Protection of the Environment

- A. The Contractor shall immediately notify the Owner of any Hazardous Materials encountered during the Work and shall immediately cease work in the affected area until further direction is received from the Owner.
- B. The Contractor and its Subcontractors and Suppliers shall comply with all applicable laws, rules and regulations including, but not limited to, all Environmental Requirements.
- C. Asbestos, Lead, or Toxic Mold may be present at the Work Location. The Contractor shall notify the Engineer immediately upon discovery of asbestos, lead, toxic mold. The Contractor shall not disturb or remove known or discovered asbestos, lead, or toxic mold unless directed by the Engineer.
- D. Hazardous Materials:
 - 1. The Contractor shall bear full responsibility including, but not limited to, payment and liability for the transportation, use and disposal of any Hazardous Materials under the Contractor's control during the performance of the Work. Disposal of Hazardous Materials should only be disposed of at Owner approved facilities. The Contractor shall provide the Owner with appropriate documentation showing proper disposal of its Hazardous Materials.
 - 2. The Owner has identified and labeled equipment known to contain PCBs. The Owner will remove and transport any equipment so identified. The Contractor shall not remove or transport any equipment containing PCBs. The Contractor shall immediately notify the Owner of any questionable or unmarked equipment and the Owner will arrange for testing and identification.
- E. Toxic Substances Introduced by the Contractor:
 - 1. The Contractor shall notify the Engineer in writing of the type, quantity and disposal method of any toxic substance used during the performance of the Work. The Contractor shall be solely responsible for the use and disposal of any such toxic substances. The Contractor shall submit cleanup procedures to the Owner for review and written approval prior to the use of the toxic substance. In the event that a toxic substance escapes into the environment, the Contractor shall immediately notify the Engineer in writing of the occurrence and the actions taken. In the event that the Contractor encounters toxic substances in the course of construction, the Contractor

shall immediately notify the Engineer verbally, with a written notification to follow. The Engineer shall arrange for disposal by the Owner.

2. The Contractor will be solely responsible for all waste material including paints, lubricants, fuels, solvents, and other chemicals used in connection with the Work. The Contractor will provide proper containers for waste materials and comply with all applicable laws, rules and regulations in their disposal. The Contractor will dispose of all empty containers off-site as soon as possible. The Contractor will designate one area for transferring paints and solvents from large containers (55-gallon drums) into smaller containers for daily use.
- F. The Contractor understands and agrees that the Work Location may include wetlands or other environmentally sensitive areas. The Contractor shall not enter these areas during the performance of its Work, unless specifically authorized by the Engineer and appropriate state and federal permits have been obtained.
- G. The Contractor and/or Subcontractor's employees shall not endanger wildlife species or domestic animals of any kind.
- H. The Contractor shall immediately cease any activity that causes or results in a violation of the Owner's or the Contractor's environmental permits or federal, state and local laws and regulations. Such violation shall immediately be reported to the Engineer verbally, with written notification to follow. All additional costs due to the Contractor's noncompliance with the applicable environmental permits or Environmental Requirements shall be paid by the Contractor.

SECTION 3.10: OTHER WORK AND OTHER PROPERTY

3.10.1 Encroachments on Rights or Property

- A. The Contractor shall be solely responsible for any encroachments on public property or on the rights or property of adjoining property owners to the Work Location, and shall hold the Owner harmless because of any encroachments that may result because of the Contractor's improper layout. In this regard, the Contractor shall, without extra cost to the Owner, remove any Work or portion of any Work that encroaches on the property other than that of the Work Location, or that is built beyond legal building or setback limits. The Contractor shall rebuild the affected Work or portion of Work at the proper location and in full compliance with the Contract Documents.

3.10.2 Interference With Existing Utilities

- A. The Contractor acknowledges and agrees that there is a possibility that existing the Owner or other utility facilities may cross and/or lie parallel to excavations in the area where Work will occur. Although the Owner may indicate recorded obstacles on the drawings, it does not warrant that other subsurface obstacles do not exist. The Contractor shall be responsible for verifying the data furnished by the Owner and for fully investigating and locating additional obstructions including every type below, on or above the ground. The Contractor should regard these impediments as normal to construction. All costs for performing such work shall not be paid for separately, but shall be included in the Contractor's costs on the Bid Form.
- B. The Contractor shall comply with all requirements of the Underground Facility Damage Prevention and Safety Act, Chapter 556, Florida Statutes.
- C. In the event the Contractor encounters an unidentified utility during performance of the Work, the Contractor shall promptly cease Work in the affected area and shall immediately notify the Owner's Representative in writing. The Owner will investigate the area and propose remedial actions in accordance with the provisions stated herein in the Section 14, "Changes to Work."
- D. The Contractor shall work in cooperation with the Owner and representatives of existing utilities to plan and coordinate putting new Work into service so as not to interfere with the operation of the existing utilities. Such plans shall be adhered to unless deviations therefrom are expressly permitted in writing by the Contract Administrator.
- E. The Contractor shall at all times conduct the Work in a manner that interferes as little as possible with the existing utilities. Any cables exposed during construction, whether energized or not, must be handled and protected as if they are energized. The Contractor shall so conduct its operations and maintain the Work in such condition that adequate drainage shall be in effect at all times. The Contractor shall not obstruct

existing gutters, ditches and other runoff facilities. When working in the vicinity of overhead lines, the Contractor shall request line rubber protection and pole holding services from the Owner of the overhead lines at least ten (10) calendar days in advance of performing the work.

- F. The Contractor shall be solely responsible for any damages, interferences, and interruptions of service caused to any utility's assets and services including water, sewer, electric, telephone, gas, cable, and other utility services, that result from the Contractor's failure to fulfill the above stated requirements.
- G. In the event the Contractor damages an existing utility, the Contractor shall immediately notify the property owner, the owner of the damaged utility and the Engineer. Should the damage cause an interruption of service, the Contractor shall be responsible for restoring service as soon as possible; however, the Contractor shall not make repairs, other than any required to restore safe conditions, without the approval of the property owner, or the owner of the damaged utility. The Contractor shall be responsible for coordinating any repair effort, and any associated costs should the utility owner or a licensed repair contractor be required to make the repair. The Owner reserves the right to deduct any unsettled claim amount from Contractor's invoices until such time as the claim is satisfactorily resolved.

3.10.3 Interference with Other Owner Work or Other Companies

- A. The Contractor shall perform the Work in a manner that minimizes the interference with other Owner work, or with work performed by other companies. The Contractor shall coordinate the Work with other persons and companies employed by the Owner. If a difference of opinion regarding scheduling or coordination of the work arises between the Contractor and another Owner contractor(s) performing work at the Work Location, the Owner may arbitrate the matter. In such cases where the Owner makes a decision regarding the scheduling or coordination of the work, the Contractor agrees to fully abide by the Owner's decision. Unless otherwise agreed in writing by the Owner, the Owner will not be responsible for additional costs.
- B. Any claims arising against the Contractor from damages to other companies' work, equipment, machinery, tools or other property shall be settled directly between the Contractor and the other companies involved. The Owner will not, in any way, be a party to arbitrating or mediating any such disputes, nor shall the Owner be responsible for any costs associated with such disputes.

3.10.4 Interference with Railroads

- A. The Contractor shall not build across, into, over or under, either temporarily or permanently, any portion of a railway or railway right-of-way without first obtaining all required permits. If the Contractor's operations render any railroad unsafe, the Contractor shall immediately notify the Engineer, and the railroad owner and take appropriate actions and such temporary safeguards as required to protect life, limb, and property, and to maintain orderly traffic.

- B. The Contractor shall procure all railroad permits required for the Work beyond those procured by the Owner and the costs for such permits shall be included in the Bid Documents. All costs associated with railroad fees for railroad flagmen, watchouts, inspectors, supervisors, any additional training of Contractor's employees that is required by applicable laws, rules and regulations when performing Work in association with railways, any certifications required for successful completion of the Work and all other associated costs shall be included in the Bid Form.

3.10.5 Interruption of Service

- A. The Contractor shall not operate any valves, nor otherwise interrupt water and/or sewer service, without first obtaining permission from the Owner. The Owner shall be present during any interruption of service.
- B. If the Contractor must shut down a main or portion of a main, thereby causing an interruption of water service, the Contractor shall provide the Owner with the following information, in writing, a minimum of five (5) business days in advance of any anticipated interruption of service:
 - 1. Date and time of outage.
 - 2. Purpose of the outage.
 - 3. Map of the area to be affected by the outage.
 - 4. Letter stating all offices, businesses, and residents have been or will be notified by the Contractor at least four (4) business days in advance of the outage (unless the Owner chooses to issue such notification).
- C. The Contractor is not authorized to proceed with the requested Work without prior written notice from the Owner that such actions are approved.
- D. In the event of a major emergency that endangers life or property, the Contractor may take immediate action before notifying the Owner. In all cases, however, the Owner shall be notified in writing at the earliest opportunity after addressing the emergency.

3.10.6 Protection of Existing Facilities and Grounds

- A. The Contractor shall be responsible for protecting all the existing facilities including, but not limited to, buildings, lawns, landscaping, sprinkler systems, and pavements, both public and private, that are encountered during the performance of the Work. At all times, the Contractor shall cooperate with the owners of such facilities by arranging and performing the Work in and around such facilities in a manner that facilitates their preservation, relocation, and/or reconstruction. The Contractor shall be responsible for the full restoration or replacement if the Contractor damages such facilities during or resulting from performance of the Work.

- B. The Contractor shall verify the existing dimensions and clearances before laying out the Work. When the Work involves the laying of utility lines across landscaped areas and grassed areas, which may include, but is not limited to, irrigation systems, streets, sidewalks, and other paved areas, the Contractor shall protect and preserve all trees, shrubs, palms, landscaping, etc., and restore such areas and all paved areas to their original sound conditions using construction techniques and materials that are the same as existing including replacing plants and trees with those of similar size and age. In the case of planted areas, the Contractor shall maintain the restoration Work until positive growth has been acknowledged in writing by the Engineer.
- C. All costs for such restoration and replacement work shall be included in the associated lines on the Bid Form, and shall not be paid for separately.
- D. The Contractor shall not (except upon written consent from the property owner and Contract Administrator) enter or occupy with workers, tools, equipment or vehicles any land outside the easements, right-of-ways, or the Owner's property.

3.10.7 Temporary Closure of Roadways

- A. The Contractor shall not close or obstruct any portion of a street, road, or private way without first obtaining permits. If any street or private way is rendered unsafe by the Contractor's operations, the Contractor shall make such repairs or provide such temporary ways and guards necessary for the protection and safety of persons on the Work and the public and for the orderly maintenance of traffic. All costs associated with temporary closure of roadways shall be included in the Bid price.
- B. The Contractor shall notify the police and fire departments in writing if it will be necessary to close a street. The Contractor shall copy the Owner on all correspondence relating to street closure. The Contractor shall notify the police and fire departments prior to closure of the street. The Contractor shall be responsible for maintaining proper coordination with the proper authorities.
- C. Temporary closure of business entrances must be approved in writing by and coordinated with the Owner.
- D. For the purposes of this Contract, the Contractor shall refer to the DIVISION 6: TECHNICAL SPECIFICATIONS.

SECTION 3.11: DRAWINGS

3.11.1 Shop Drawings

- A. The Contractor shall submit all Shop Drawings according to the Schedule of Submittals approved by the Engineer and the DIVISION 6: TECHNICAL SPECIFICATIONS.
- B. Shop drawings shall establish the actual quantities, dimensions, materials and specified performance and design details of all manufactured or fabricated items, services and

equipment that Contractor proposes to provide for the Work; indicate proper relation to adjoining Work; amplify design details of mechanical and electrical equipment in proper relation to physical spaces in the structure; and incorporate minor changes of design or construction to suit actual conditions.

- C. Shop drawings shall be complete in every detail, properly identified with the Contract name, Contract and subsection number for identification of each item, and state the qualifications, departures or deviations from the Contract, if any. Shop drawings for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. Each drawing shall have a clear space above the title block in the lower right-hand corner for the approval stamps of the Contractor and the Engineer.
- D. In checking the Shop Drawings, the Contractor shall:
 - 1. Verify all dimensions and field conditions, and shall check and coordinate the Shop Drawings of any section or trade with the requirements of all other sections or trades whose Work is related thereto, as required for proper and complete installation of the Work.
 - 2. Verify all rough-in and connections for utilities shall conform to approved equipment Shop Drawings
 - 3. Review and coordinate each Shop Drawing with other Shop Drawings and the Contract Documents
 - 4. Determine and verify all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety programs.
- E. The Engineer will review the Shop Drawings and will return them to the Contractor stamped to indicate the action taken. For planning purposes, the Contractor shall allow a minimum of two (2) weeks for review of each Shop Drawing. The stamp will indicate that the Shop Drawing is "No Exception Taken", "Make Corrections Noted", "Revise and Resubmit" or "Rejected". Only those Shop Drawings stamped "Revise and Resubmit" or "Rejected" shall be resubmitted for subsequent review. Resubmittals shall be in the same form and number of copies as original submittals, with notation indicating a revised submittal. The Shop Drawings stamped "No Exception Taken" or "Make Corrections Noted" will be returned to the Contractor, who will be responsible for obtaining prints thereof and distributing them to the field and Subcontractors.
- F. At the same time the Engineer returns a reviewed submittal to the Contractor it will forward two copies of each item stamped "No Exception Taken" or "Make Corrections Noted" together with any conditions of approval, to for field and office use. The Engineer may revoke approval of Shop Drawings, should field conditions so dictate.

SECTION 3.12: INSPECTIONS, QUALITY & REPORTING

3.12.1 Contractor's Daily Reports

- A. The Contractor shall complete and submit daily reports for each calendar day of the Work, starting with the date of the Notice to Proceed, and said reports shall be submitted to the Owner's Representative by noon of the following workday. The Contractor's failure to submit the daily reports as specified herein will be grounds for withholding payments.
- B. Upon review of the Contractor's Daily Reports, any discrepancies in the information noted by the Owner's Representative will be provided to the Contractor. A revised Daily Report will be resubmitted within one (1) business day.

3.12.2 Reporting

- A. The Contractor shall provide the reports as defined in the Contract Documents. The Contractor shall refer to DIVISION 6: TECHNICAL SPECIFICATIONS.
- B. Where the reporting frequency is daily, reports shall be submitted by noon of the following workday. Where the reporting frequency is weekly, reports are due by Monday at noon, covering the prior workweek. Where Monday is a Holiday, the reports are due at noon on the next workday. Where reports are due monthly, reports are due by noon on the first business day of each month. Sample forms for reports may be included in the Contract Documents. Where they are included they are to be used. Where they are not included, the Contractor shall provide a sample of its proposed report format for each report to the Engineer at least one (1) week prior to its initial due date. The Engineer will review and either approve or reject the use of the report. Where the proposed report is rejected, the Contractor shall resubmit revised report formats, until the Engineer approves format. The Reporting Cycle shall begin on the Notice to Proceed date or the date of the purchase order, if used.
- C. Where the Contract calls for reports to be submitted by the Contractor, such reports shall be in both paper and electronic format, with the electronic version submitted electronically via email to the Engineer.

3.12.3 Quality Control and Quality Assurance

- A. The Contractor shall provide Quality Control to ensure the Work is performed in accordance with the Contract and in adherence with the Standard of Care. Quality Control shall be appropriate for the nature of the Work, and shall be conducted in a manner consistent with sound quality management and industrial engineering principles. The Contractor shall have only personnel trained in Quality Control techniques and experienced with the nature of the Work perform the Quality Control function.
- B. The Owner may perform Quality Assurance activities. Such activities, whether performed or not, do not in any way limit or reduce the Contractor's requirements. The

Owner may become aware of quality related problems during its performance of Quality Assurance, but has no obligation to notify the Contractor of its findings. The Contractor shall provide access to all areas of Work, including the Contractor's facilities, for the Owner's Quality Assurance personnel and the Owner's Representatives. The Owner will conduct Quality Assurance activities so as not to excessively interfere with the Work, however, where the Owner Quality Assurance personnel request specific actions of the Contractor, the Contractor shall comply with the request and agrees that such compliance is included as part of its Contract Price.

- C. The Contractor shall refer to DIVISION 6: TECHNICAL SPECIFICATIONS.

3.12.4 Inspections and Testing

- A. The Owner, or its designated representatives, will perform inspections at the Contractor facilities during normal business hours and in a manner that minimizes disruption to the normal day-to-day work activities of the Contractor. Contractor shall provide safe and proper facilities for inspection access and observation of the Work and also for any inspection or testing by others.
- B. If the Contractor has covered or concealed any Work from inspection in any way that the Engineer has not specifically requested prior to the Owner's Representative's inspection, or if the Engineer considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at the Engineer's request, shall uncover, expose or otherwise make available the portion of the Work in question for observation, inspection or testing as the Engineer may require. The Contractor shall furnish all necessary labor, material and equipment to make such Work available.
- C. The Contractor shall bear all expenses of uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including, but not limited to, compensation for additional professional services required by the Owner, and no change in Contract Time will be considered as a result of the foregoing.
- D. The Owner may, at its sole discretion, grant the Contractor an extension of the Contract Time directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.
- E. All materials and equipment used in the construction of the Contract shall be subject to adequate inspection and testing in accordance with accepted standards. The Contractor shall select the laboratory or inspection agency for making all tests required by the specifications, and shall pay for this laboratory service direct, as a part of this Contract.
- G. The Contractor shall pay for all required testing of materials and equipment. Two (2) copies of each test showing certification of each test shall be furnished to the Engineer immediately after such test has been made and with the exception of concrete, prior to delivery of the materials or equipment tested to the Work Location. The Owner will not accept the materials or equipment until tests have been approved.

- H. Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended. Test requirements for all materials are set out in the detailed specifications for that particular material. All materials and equipment prior to being incorporated in the Work, and required by the Engineer to be tested, shall be tested for conformance with contractual requirements. Standard items of a uniform nature may be accepted on the manufacturer's certification. Where specific performance and/or quality is referred to, it is the Contractor's responsibility to have the necessary tests performed by qualified persons to show that the contractual requirements are being met except those tests named in the Contract Documents to be performed by the Owner. Certified test results shall be submitted promptly in quadruplicate to the Engineer for review. All tests shall be performed in accordance with referenced standards. Where no reference is made, tests shall be performed in accordance with the methods prescribed by the American Society for Testing and Materials or such other organization as would be applicable.
- I. The Contractor shall pay for any retests resulting from its failure to provide Work that passes required tests.
- J. The Engineer, or the Owner appointed Inspectors may inspect any and all materials and Work. Such inspection may extend to any or all parts of the Work and to the preparation and manufacture of the materials to be used. The Inspectors shall not be authorized to alter, revoke, enlarge or relax the provisions of the Contract, nor will they be authorized to approve or accept any portion of the completed Work, nor to issue instructions contrary to the Contract. The Inspector shall inform the Engineer of the progress of the Work and the manner in which it is being done, and notify the Contractor of any infringement upon the Contract Documents. The Inspectors will have the authority to reject defective materials or to suspend any Work that is being improperly done subject to the final decision of the Engineer.

3.12.5 Performance Evaluation

- A. The Owner may, upon completion of the Work or at any time during the Work, issue to the Contractor a written performance evaluation of the Contractor's performance of Work under this Contract. The evaluation will be based upon the Owner's and the Engineer's reports, inspections, and first-hand experience in dealing with the Contractor and the Contractor's representatives. The performance evaluation will indicate whether the Contractor's performance has been deemed "Satisfactory," "Unsatisfactory" or "Top Performance" with regard to the following criteria:
 - 1. Timeliness;
 - 2. Customer Service to Owner;
 - 3. Care of Owner's Customers;
 - 4. Financial Performance;

5. Quality of Workmanship;
6. Quality of Materials & Equipment;
7. Safety;
8. Environmental;
9. Compliance with MBE/WBE Requirements; and
10. Project Administration.

SECTION 3.13: OWNER-FURNISHED ITEMS

3.13.1 Conditions of Provisioning

- A. The Contractor understands and agrees that it shall be solely responsible for providing everything necessary to perform the Work and to be in full compliance with the Contract Documents, except for those items specifically listed herein as being provided by the Owner.
- B. Any use of Owner-furnished items on non-Owner work is a breach of the Contract and a violation of the law. All Owner-furnished items are the property of the Owner when issued, stored by Contractor, and used in performance of the Work. The Contractor agrees that it shall use all Owner-furnished items in a manner consistent with industry practice, codes, laws, considering the condition of the Owner-furnished item, the skills of the individuals using the Owner-furnished item, and all environmental conditions. The Contractor understands and agrees that where the Owner and the Contractor shall share Owner-furnished items, Owner usage shall always have priority over Contractor usage, and the Contract Administrator shall have sole authority to resolve any usage dispute and such resolution shall not result in any claim by Contractor.
- C. The Contractor agrees to return to the Owner, and to the location as established by the Engineer, any unused or salvageable items prior to final payment. The Contractor agrees that the Owner has the right to audit and investigate at any time how the Contractor is using Owner-furnished items. The Owner will bill the Contractor for unaccountable Owner-furnished material at the current Owner cost.

3.13.2 Access to Work Locations

- A. The Owner will provide, as indicated in the Contract Documents, and no later than the date when needed by the Contractor, access to the Work Location, including rights-of-way or access thereto, and such other lands that are designated for the Contractor's use. The Owner will secure easements for permanent structures or permanent changes in existing facilities, unless otherwise specified in the Contract Documents.

3.13.3 Contract Documents

- A. After Contract Award, the Owner will furnish a maximum of one (1) complete set of the Contract Documents, or portions requested thereof, upon request by the Contractor. Additional copies will be supplied at cost to the Contractor.

3.13.4 Site Conditions

- A. The Owner will provide to Contractor test data results from field tests. Such data has been determined by the Owner to be sufficient to describe the conditions to be expected during the performance of the Work. The Contractor shall not be entitled to any claim for additional costs associated with any ground related Work, unless the actual conditions found substantially differ from those described by the test data.
- B. The Contractor is responsible for verifying Site conditions and obtaining additional data as the Contractor deems necessary. The Contractor will be responsible for all costs associated with the gathering of additional Site data.

SECTION 3.14: CHANGES TO WORK

3.14.1 Unforeseen Conditions

- A. The Contractor understands and agrees that it is its responsibility to conduct due diligence prior to the start of Work. Such due diligence includes, but is not limited to, verifying all Work conditions, measurements, dimensions and latent and patent obstructions, the accuracy of drawings, test results, inspections and other informational materials provided in the Contract Documents, and any other causes for existing or potential changes to the Work prior to initiating the Work. In the event that the Work must be changed due to the Contractor's failure to fulfill the above requirements, the Contractor understands and agrees that it will be responsible for all costs associated with the changed condition.
- B. In the event, however, that the Contractor exercises the requisite due diligence and a change to the Work becomes necessary resulting from conditions that are clearly unforeseen and that could not have been discovered, the costs for adjusting the Work in response to such unforeseen conditions shall be addressed as stated herein in Article 3.14.2 below titled "Changes in the Work and Change Orders."

3.14.2 Changes in the Work and Change Orders

- A. The Engineer may issue to the Contractor a written Field Order to authorize minor changes to the Work having no impact on Contract Price or Contract Time. If the Contractor anticipates that the Field Order work will impact the Contract Price or Contract Time the Contractor should immediately notify the Engineer.
- B. In the event of an emergency endangering life or property where it is appropriate for the Contractor to take action, the Contractor shall undertake such actions to preserve

life and property. The Owner and the Contractor will determine after emergency is concluded, the extent of out-of-scope work performed by the Contractor, and the Owner will issue a Change Order or amend the Contract for such work, if any and as necessary.

- C. Anything to the contrary notwithstanding, in the event that the Owner determines that a change must proceed immediately or if the Owner rejects all or a portion of the Contractor's estimated effect of a change, then the Owner may direct, and the Contractor shall commence immediately and perform until completion, the necessary services to implement the change. The Owner will issue such direction in the form of a written Work Change Directive. The Contractor shall be compensated for such change in the work, notwithstanding any objections of the Contractor, which objections shall be preserved and not waived by the Contractor's commencement or performance of the Work as directed by the Owner.
- D. To request or claim any change in the Work including, but not limited to change in scope, quantities, pricing, or schedules, the Contractor shall submit a letter to the Engineer stating such request or claim. The Engineer shall review and submit a written recommendation to the Owner. The Owner shall have the right to approve or disapprove any request or claim for change as it deems necessary and in its best interests consistent with the other Contract requirements. Whether requested by the Contractor, claimed by the Contractor, or contemplated by the Owner, no change shall be authorized unless made on an Owner Change Order signed by the Contract Administrator or through a formal written amendment to this Contract.
- E. All requests for changes filed by the Contractor shall be in writing delivered to the Owner's Representative within ten (10) business days of when the event that prompted the claim was discovered or should have been discovered. The Contractor's failure to timely submit a written claim will constitute a waiver of the right to pursue a claim. Upon receipt of the Contractor's claim notification, Owner's Representative will provide written direction as to the procedures that will be used to address the request. The Contractor's request shall be sufficiently detailed including itemized costs, condition and work descriptions and other information necessary to evaluate the merits of the claim. A cost breakdown showing all labor, material and equipment shall be provided. The Owner's Representative may reject requests providing insufficient supporting information. Any change in the Contract resulting from the request will be incorporated into the Contract via a Change Order or Purchase Order. Where the Engineer and the Contractor are unable to reach a mutually acceptable resolution of request, the Owner's determination will be final.
- F. Where necessary, the Owner will determine the value of work covered by a change order using one of the following methods:
 - 1. Where the work is covered by established unit prices contained in the contract, the unit price, if the Owner agrees that this is a fair and reasonable price; otherwise, a negotiated price will be applied to the quantity of work at the discretion of the Owner,

2. By mutual acceptance of lump sum price,
 3. By actual cost and a mutually acceptable fixed amount for overhead and profit, or
 4. Where Bid Price was based on estimated quantities, prior to making final payment, the Owner will determine actual quantities using sampling, surveying and other industry recognized means and prepare a Change Order adjusting the price to reflect actual volumes.
- G. The Contractor shall immediately notify the Owner's Representative in writing of any unauthorized change in the scope of the Work or significant change in the quantities of the Work that may increase the Contract Price, require an extension of Work schedule, or negatively impact permitting or other regulatory requirements.
- H. The Contractor shall submit requests or claims for a Work schedule adjustment in writing and delivered to the Engineer within five (5) business days following the discovery of the event that prompted the claim or when the event should have been discovered. Where accepted by the Owner, changes to the Approved Schedule will only adjust for critical path impacts. Failure to include the necessary critical path analysis with request shall be grounds for rejecting the claim. The path of critical events mentioned herein means the series of interdependent Work events that must be sequentially performed and that require a longer total time to perform than any other such series. Upon receipt of the Contractor's request for a change in the Work schedule, the Owner's Representative will provide any additional directions in writing detailing the procedures that will be used to resolve the request, including provision of time impact or manpower and equipment loading schedules. Where the Owner and the Contractor are unable to reach a mutually acceptable resolution of request, the Owner will make a commercially reasonable determination, made in accordance with the Owner's established policies and procedures, which shall be final.
- I. All Work defined on Field Orders, Work Change Directives and Change Orders shall be subject to the conditions of the Contract, unless specifically noted on the Field Order Form, Work Change Directive Form, or Change Order.

3.14.3 Delay

- A. Damage, loss, expense or delay incurred or experienced by the Contractor in the prosecution of the Work by reason of unforeseen circumstances, unanticipated difficulties and obstructions, bad weather, or other mischances that are generally considered to be a part of the usual hazards associated with Work, shall be borne entirely by the Contractor and shall not be the subject of any claim for additional compensation or change in Approved Schedule.
- B. The Contractor agrees that its sole remedy for any claims, damages or losses related to any delay, disruption or hindrance alleged to be caused by the Owner or any of the Owner's agents or other contractors, shall be an extension of the Contract completion

date. As such, the Contractor shall not recover any cost associated with extended home/field office overhead, idle labor/equipment/materials, subcontractors' claims or any other miscellaneous costs.

- C. Any demand for equitable time adjustment must be served in writing to the Owner within five (5) calendar days of the event giving rise to any delay, disruption or hindrance. Any request for an equitable time adjustment shall be accompanied by a logical time impact analysis, demonstrating the nature and magnitude of the event to the critical path. Any request that is not clearly shown to be an impact to the project's critical path will be denied.
- D. Failure to strictly comply with these requirements shall be deemed a waiver of any right to seek equitable adjustment.

3.14.4 Notification of Surety

- A. The Contractor shall notify its surety of any changes affecting the general scope of the Work or altering the Contract Price.

3.14.5 Contingency Work

- A. The Owner will issue a written Change Order to incorporate cost or schedule changes into the Contract. Issuance of a Change Order is solely at the discretion of the Owner. The Change Order shall be used for increases or decreases in the Contract Price, within the contingency amount set forth in the Contract Price, or to make changes in schedule for performance of the Work.
- B. The Contractor should not expect that any Change Orders for contingency work will be issued. Owner shall have no obligation to pay for contingency work unless the same is performed pursuant to a written Change Order form signed before the contingency work is commenced.
- C. The Contractor and the Engineer shall mutually agree to the pricing of a Change Order for contingency work. Any negotiated increase or decrease in the Contract Price shall be based on the Contractor's costs for labor, materials and supplies directly applicable to the increase or decrease plus ten percent (10%) thereof for Contractor's supervision, overhead, bonds and profit. For any negotiated increase or decrease, the Contractor will provide a complete detailed breakdown for all labor, material, and equipment, etc. associated with the change. A lump sum figure submitted with no breakdown will be returned to the Contractor without review.
- D. Cost Reimbursable (Time and Materials) Method:
 - 1. The Owner may, at its sole discretion, implement cost reimbursable procedures in order to limit the costs for performance of contingency work. Also, whenever the Contractor and the Owner are unable to agree on costs for an increase in the Work, the Owner or Engineer shall order the Contractor to proceed with the Work on a

cost reimbursable (time and material) basis. The Owner will pay the Contractor for the contingency work in the manner hereinafter described, and the compensation thus provided shall constitute full payment for said work. The Owner shall issue the Change Order for the Contractor to perform the specific contingency work with payment determined as follows:

- a. For materials purchased by the Contractor and used in the work, the Contractor shall be paid the actual cost of such materials, including sales taxes if required, and freight and delivery charges as shown by original receipted bills. A mark-up amount equal to ten percent (10%) of the sum thereof shall be added to this cost. The Owner reserves the right to select and approve, or to reject the materials to be used and the sources of supply of any materials furnished by the Contractor.
- b. The Contractor will be paid the cost of wages for all labor that is engaged in the Work, plus the actual cost chargeable to the Work for workers' compensation insurance, social security taxes, unemployment compensation insurance and such additional amounts as are paid by the Contractor. A total mark-up shall be added equal to ten percent (10%) of wages and other cost listed above. In evidence of the costs of labor the Contractor shall provide a certified statement of wages actually paid, together with copies of supporting payrolls. Wage rates used in determining the amount of the payment will be the actual wage rates paid by the Contractor for Work under this Contract, except that no rate used shall exceed the rate of comparable labor currently employed on the project.
- c. Payment for the services of foremen in direct charge of the specific operation will be made. Payment for the service of superintendents, timekeepers or other overhead personnel will not be made nor will payment for the services of watchmen be made unless required specifically by the contingency Work. The actual function performed by an employee rather than its payroll title will be the criterion used in determining the eligibility of an employee's services for payment under this provision.
- d. The types and amounts of equipment and machinery used by the Contractor in carrying out its work under the contingency shall be made in keeping with normal practice for work of similar nature. Owner may, at its discretion, limit by specific instruction the types and amounts of equipment and machinery to be used. For all equipment and machinery used in the contingency work, the Owner will pay eighty percent (80%) of the rental value as set forth in the Blue Book value or actual cost, whichever is less, to which no mark-up percentages will be added.
- e. In computing the hourly rental of such equipment, less than thirty (30) minutes shall be considered 1/2 hour except when the minimum rental time to be paid is one hour. Rental time will not be allowed while equipment is inoperative due to breakdowns. The rental time of equipment to be paid for shall be the time the equipment is in operation on the contingency work being performed. The

Contractor shall be reimbursed for the time required to move the equipment to the Work, and return it to its original location, only if the Contractor is charged this cost by the renting agency. Excess rental time of equipment due to inefficient work practices will not be reimbursed.

- f. No payment will be allowed for the use of small tools and minor items of equipment, which, as used herein, are defined as individual tools or pieces of equipment having a replacement value of \$500.00 or less.
- g. The Contractor and the Engineer shall compare records of the Work performed on a Cost Reimbursable basis at the end of each day. These records shall be prepared by the Contractor and shall be signed by both the Owner and the Contractor's Representative. A copy of these records shall be submitted to the Owner with the invoice for the work.
- h. Payment for cost reimbursable contingency work will be included in monthly progress payments.
- i. The Contractor's Subcontractors will be allowed a ten percent (10%) mark-up on Work performed by their own forces. The Contractor will be allowed a five percent (5%) mark-up on the Subcontractor's costs (i.e. labor, materials and equipment) only, no mark-up on the Subcontractor's profit.

3.14.6 Suspension of Work

- A. The Owner may suspend the performance of the Work rendered by providing the Contractor with five (5) business days written notice of such suspension. Schedules and compensation for performance of the Work shall be amended by mutual agreement to reflect such suspension. In the event of suspension of Work, the Contractor shall resume the full performance of the Work when the Owner gives written direction to do so. Suspension of Work caused by the Contractor's sole negligence or failure to perform shall not affect the Contractor's compensation as outlined in the Contract Documents.

3.14.7 Unauthorized Work

- A. The Owner will consider any Work done without lines and grades given, Work done beyond the lines and grades shown on the Contract or as given, or any extra Work done without written authority, as unauthorized Work and will not pay the Contractor for such Work. If so ordered by the Contract Administrator, the Contractor shall remove such Work and properly replace it at the Contractor's own expense.

3.14.8 Payment of Overtime

- A. Any Overtime required for the Contractor to complete the Work within the Contract Time shall be at the sole cost and expense of the Contractor.

- B. If the Owner requires the Contractor to perform Overtime Work in order to complete the Work prior to the Contract Time, the Contractor shall bill the Owner for the Overtime such that only the actual costs incurred by the Contractor relating to the payment of Overtime premiums, in accordance with its labor policies and applicable laws. Such actual costs include Overtime wage premium, and additional taxes and insurance directly associated with the Overtime wage premium. The Contractor agrees that it will not charge for personnel paid a salary, or other form of compensation such that the Contractor incurs no direct costs as a result of the Overtime. The Contractor shall total the direct Overtime charges, and add the agreed upon overhead rate, but in no case, shall such overhead rate exceed ten percent (10%) of the total overtime costs.
- C. Overtime may only be charged to the Owner if the Contractor was directed in writing by the Contract Administrator to incur the Overtime. Such authorization for Overtime shall be accompanied by a Change Order.

3.14.9 Scheduling of Overtime (Contractor Initiated Overtime)

- A. Whenever the Contractor schedules Work beyond ten (10) hours per day, beyond fifty (50) hours per week, or on Saturdays, Sundays, or Owner Holidays, then the Contractor shall arrange, in advance, for the Engineer to inspect the Work performed during Overtime. The Contractor shall not perform Overtime Work or after-hours Work without an Owner's Representative at the Work Location or available to perform the inspections, as directed by the Contract Administrator. Except where the Owner has requested the Contractor schedule Overtime to perform additional Work, the Contractor shall reimburse the Owner for any additional costs associated with the Owner's Representatives' Overtime pay.

SECTION 3.15: LABOR

3.15.1 DBE, MBE and/or WBE Requirements

- A. Contractor represents that it will comply with all applicable provisions regarding DBE, MBE and/or WBE enterprises requirements stated in the DIVISION 4: SUPPLEMENTAL CONDITIONS.

3.15.2 Contractor's Labor Relations

- A. The Contractor shall negotiate and resolve any disputes between the Contractor and its employees, or anyone representing its employees. The Contractor shall immediately notify the Owner of any actual or potential labor dispute that may affect the Work and shall inform the Owner of all actions it is taking to resolve the dispute.

3.15.3 Minimum Qualifications of Contractor Personnel

- A. All Contractor personnel shall be at a minimum qualified for the tasks they are assigned. All Contractor personnel shall act in a professional manner, with due sensitivity to other

persons at the Work Location. If the Owner, at its sole reasonable discretion, determines that a Contractor's person is unqualified, unfit, or otherwise unsuitable for the tasks assigned, the Contractor shall immediately stop the person from performing the tasks, and replace the person with a qualified individual. The Contractor shall pay all costs associated with replacing the unqualified person including, but not limited to, termination, recruiting, training, and certification costs.

- B. The Contractor personnel assigned supervisory roles, and those with increased authority shall be held to strict scrutiny of their qualifications and suitability for their positions. In addition to the other provisions of this clause, the Contractor shall provide written documentation as to experience, education, licenses, certifications, professional affiliations, and other qualifications of the individual, within one (1) day of request from the Engineer. Any changes to such personnel after approval shall require the written permission of the Engineer.

3.15.4 Non-Discrimination

- A. Contractor covenants and agrees that no employee or applicant for employment will be discriminated against during the course of employment or in the application process with respect to hiring, tenure, terms, conditions, or privileges of employment, because of race, color, religion, sex, gender, age, disability, national origin, marital status, political affiliation, familial status, pregnancy, or veteran or service member status.
- B. Discriminatory Vendor List. Contractor hereby acknowledges its continuous duty to disclose to the City if Contractor or any of its affiliates, as defined by Section 287.134(1)(a), Florida Statutes, has been placed on the Discriminatory Vendor List. Pursuant to Section 287.134(2)(a), Florida Statutes: "An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies 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."

3.15.5 Show-Up Pay

- A. In the event that inclement weather prevents the Contractor from performing Work, the Contractor may be obligated to pay its crew a show-up pay. The Contractor shall be solely responsible for providing this pay.

SECTION 3.16: RIGHTS, REMEDIES, AND DISPUTES

3.16.1 Intellectual Property

- A. The Contractor grants to the Owner an irrevocable, perpetual, royalty free and fully paid-up right to use (and such right includes, without limitation, a right to copy, modify and create derivative works from the subject matter of the grant of the right to sublicense all, or any portion of, the foregoing rights to an affiliate or a third party service provider) the

Contractor's intellectual property (including, without limitation, all trade secrets, patents, copyright and know-how) that is contained or embedded in, required for the use of, that was used in the production of or is required for the reproduction, modification, maintenance, servicing, improvement or continued operation of any applicable unit of Work.

- B. If the Work contains, has embedded in, requires for the use of any third party intellectual property, or if the third party intellectual property is required for the reproduction, modification, maintenance, servicing, improvement or continued operation of the Work, the Contractor shall secure for the Owner an irrevocable, perpetual, royalty free and fully paid-up right to use all third party intellectual property. The Contractor shall secure such right at its expense and prior to incorporating any third party intellectual property (including, without limitation, all trade secrets, patents, copyright and know-how) into any Work, including, without limitation, all drawings or data provided under the Contract, and such right must include, without limitation, a right to copy, modify and create derivative works from the subject matter of the grant of the right and a right to sublicense all or any portion of the foregoing rights to an affiliate or a third party service provider.
- C. Should the Owner, or any third party obtaining such work product through the Owner, use the Work or any part thereof for any purpose other than that which is specified herein, it shall be at the Owner's sole risk.
- D. The Contractor will, at its expense, defend all claims, actions or proceedings against the Owner based on any allegation that the Work, or any part of the Work, constitutes an infringement of any patent or any other intellectual property right, and will pay to the Owner all costs, damages, charges, and expenses occasioned to the Owner by reason thereof. The Owner will give the Contractor written notice of any such claim, action or proceeding and, at the request and expense of the Contractor, the Owner will provide the Contractor with available information, assistance and authority for the defense.

- E. If, in any action or proceeding, the Work, or any part thereof, is held to constitute an infringement, the Contractor will forthwith either secure for Owner the right to continue using the Work or will, at the Contractor's expense, replace the infringing items with noninfringing Work or make modifications as necessary so that the Work no longer infringes.
- F. The Contractor will obtain and pay for all patent and other intellectual property royalties and license fees required in respect of the Work.

3.16.2 Offsets

- A. If the Owner reasonably believes the Contractor is in violation of any requirement of the Contract, the Owner may withhold payments that may be due the Contractor, and may offset existing balances with any Owner incurred costs against funds due the Contractor under this and any other Contractor Contract with the Owner, as a result of the violation, or other damages as allowed by the Contract Documents and applicable law.

3.16.3 Proprietary Information

- A. The Contractor shall not copy, reproduce, or disclose to third parties, except in connection with the Work, any information that the Owner furnishes to the Contractor. The Contractor shall insert in any subcontract a restriction on the use of all information furnished by the Owner. The Contractor shall not use this information on another project. All information furnished by the Owner will be returned to the Owner upon completion of the Work. The Contractor may retain a copy of such information solely for its own project records.

3.16.4 Removal of Work

- A. The Contractor shall not sell, assign, mortgage, hypothecate or remove Work that has been delivered to or installed at the Work Location without the Owner's approval.

3.16.5 Right to Audit and Financial Reporting

- A. Upon the Owner's reasonable requests, the Contractor agrees to allow the Owner to audit its financial and operating records for the purpose of determining invoice accuracy, or otherwise assessing compliance with the Contract Documents. The Contractor agrees to allow Owner personnel, their qualified representative, and representatives as stated in DIVISION 4: SUPPLEMENTAL CONDITIONS access the records at Contractor's office, with three (3) business days written notice, for a reasonable period, not less than five (5) business days, in a workspace suitable for the audit provided by the Contractor. All audit work will be done on the Contractor's premises, and no Contractor documentation will be removed from the Contractor's offices. The Contractor agrees to have knowledgeable personnel available to answer questions for the auditors during the time they are at the Contractor's offices and for a period of two (2) weeks thereafter. The Contractor shall provide to the Owner audited

financial statements for the most recent fiscal year upon the Owner's request, not later than five (5) business days after receipt of written request.

- B. Contractor represents that it will comply with all applicable provisions stated in the DIVISION 4: SUPPLEMENTAL CONDITIONS.

3.16.6 Title to Materials Found

- A. The Owner shall retain the title to water, mineral matter, timber and any other materials that the Contractor, or its Subcontractors, encounter during the excavation or other operations of the Work. The Contractor shall use or dispose of this material in accordance with the Contract or written instructions from the Engineer. Any materials found in the excavation, or other operations of the Contractor, that are of archaeological or historical value shall be left in place. The Contractor shall immediately notify the Owner of the find and shall take no further action until directed by the Owner.

3.16.7 Owner's Rights for Contractor Breach

- A. In the event that Contractor causes delay to Approved Schedule, performs its Work in a manner that fails to meet the Standard of Care, commits a material breach of this Agreement, or otherwise damages the Owner at law or in equity, the Owner is entitled to all remedies and damages available at law, including, but not limited to, liquidated damages, actual damages, consequential damages, attorneys' fees, and costs.

3.16.8 Limited Waiver of Consequential Damages

- A. The Parties expressly agree that no Party to this Agreement shall be liable to any other Party or Parties to this Agreement for any special, consequential or exemplary damages of any kind whatsoever, whether arising in contract, warranty, tort (including but not limited to negligence), strict liability, or otherwise, including without limitation losses of use, profits, business reputation and financing, subject to the following exceptions: (i) willful misconduct, recklessness, or fraud by the Contractor or any entity for which it is legally responsible; (ii) the Contractor's third-party indemnity obligations under this Agreement or arising by operation of law, including claims for bodily injury, personal injury, or death; (iii) abandonment; (iv) Contractor's liability for liquidated damages; and (v) liability that is recoverable from Project Specific insurance.

SECTION 3.17: REPRESENTATIONS & WARRANTIES

3.17.1 Contractor's Knowledge of the Work

- A. The Contractor represents that the Contract Price and the detailed schedule for the execution of the Work are based on its own knowledge and judgment of the conditions and hazards involved, and not upon any representation of the Owner. The Owner assumes no responsibility for any understanding or representation made by any of its representatives during or prior to execution of the Contract unless such understandings

or representations are expressly stated in the Contract and the Contract expressly provides that the Owner assumes the responsibility.

3.17.2 Contractor's Plans and Specifications

- A. All plans and specifications that the Contractor provides for any building, structure, system or equipment where required by federal, state, local laws and regulation as part of the Work shall bear the seal of a Professional Engineer duly registered in the State of Florida at no cost to the Owner.

3.17.3 Contractor's Warranties

- A. The Contractor unconditionally warrants to the Owner for a period of not less than two (2) years (unless otherwise stated in DIVISION 6: TECHNICAL SPECIFICATIONS) from the earlier of Final Acceptance or Substantial Completion and beginning of normal use by the Owner, that all Work furnished under the Contract including, but not limited to, materials, equipment, workmanship, and intellectual property, including derivative works will be:
 - 1. Performed in a safe, professional and workman like manner;
 - 2. Free from Defects in design, material, and workmanship;
 - 3. Fit for the use and purpose specified or referred to in the Contract;
 - 4. Suitable for any other use or purpose as represented in writing by the Contractor;
 - 5. In conformance with the Contract Documents; and
 - 6. Merchantable, new and of first-class quality.
 - 7. Performed in accordance with the Standard of Care as defined herein.
- B. The Contractor warrants that the Work shall conform to all applicable standards and regulations promulgated by federal, state, local laws and regulations, standards boards, organizations of the Department of State, and adopted industry association standards. If the Work fails to conform to such laws, rules, standards and regulations, the Owner may return the Work for correction or replacement at the Contractor's expense, or return the Work at the Contractor's expense and cancel the Contract. If the Contractor performs services that fail to conform to such standards and regulations the Contractor shall make the necessary corrections at Contractor's expense. The Owner may correct services to comply with standards and regulations at the Contractor's expense if the Contractor fails to make the appropriate corrections within a reasonable time.
- C. If the Work includes items covered under a manufacturer's or Subcontractor's warranty that exceeds the requirements stated herein, the Contractor shall transfer such

warranty to the Owner. Such warranties, do not in any way limit the warranty provided by the Contractor to the Owner.

- D. If, within the warranty period, the Owner determines that any of the workmanship or supplies are defective or exhibit signs of deterioration, in the opinion of the Owner, the Contractor, at its own expense, shall repair, adjust, or replace the defective Work to the complete satisfaction of the Owner. The Contractor shall pay all costs of removal, transportation, reinstallation, repair, and all other associated costs incurred in connection with correcting such Defects in the Work. The Contractor shall correct any Defects only at times designated by the Owner. The Contractor shall extend the warranty period an additional twelve (12) months (thirty-six (36) months total) for any portion of the Work that has undergone warranty repair or replacement.
- E. When operational conditions warrant, the Owner may repair or replace any defective equipment at the Contractor's expense. The Owner may repair or replace any defective Work at the Contractor's expense when the Contractor fails to correct the Defect within a reasonable time of receiving written notification of the Defect by the Owner, when the Contractor is unable to respond in an emergency situation, or when necessary to prevent the Owner from substantial financial loss. Where the Owner makes repairs or replaces defective Work, the Owner will issue the Contractor a written accounting and invoice of all such work to correct Defects. The Contractor's liability to the Owner for the costs of removal, transportation, reinstallation, and all other associated costs incurred in connection with correcting Defects in the Work will be limited to 1.5 times the original installed purchase price of the specific Work.
- F. The Contractor's warranty excludes remedy for damage or Defect caused by abuse, improper or insufficient maintenance, improper operation, or wear and tear under normal usage.

3.17.4 Competent Performance of the Work

- A. The Contractor represents that it will conduct the Work in a manner and with sufficient labor, materials and equipment necessary to affect a diligent pursuance of the Work through Final Completion. If, in the sole opinion of the Owner, the Contractor fails to perform the Work as represented, the Owner may, at its sole discretion, take charge of the Work and furnish and provide the labor, materials, and equipment necessary to complete the Work as planned within the required time if the Owner deems the organization of the Contractor or its management, or the manner in which Contractor is performing the Work, to be manifestly incompetent or inadequate to complete the Work as specified. The Contractor shall pay the Owner for the cost of all such Work completed by the Owner.

3.17.5 Encroachment on Outside Property

- A. The Contractor warrants that it shall not encroach on any rights or property of the public or adjoining property owners and shall hold the Owner harmless because of any encroachments that may result from the Contractor's lack of proper layout. If such an

encroachment occurs, the Contractor agrees to remove any Work or portion thereof, that encroaches on the property of others, or that is built beyond legal building or setback limits, and shall rebuild the affected Work, or portion thereof, at the proper location, all without extra cost to the Owner.

3.17.6 Free and Clear Title

- A. The Contractor warrants that it has title to all equipment and materials furnished under the Contract where title will pass to the Owner, and that the equipment and materials passed to the Owner are free and clear of all liens, claims, security interests and encumbrances.

3.17.7 Performance of the Work

- A. The Contractor represents and warrants that it has the full corporate right, power and authority to enter into the Contract and to perform the acts required of it hereunder, and that the performance of its obligations and duties hereunder does not and will not violate any Contract to which the Contractor is a party or by which it is otherwise bound. The Contractor warrants that all items provided under the Contract shall be free from Defect and services shall be performed in a professional manner and with professional diligence and skill, consistent with the prevailing standards of the industry. The Contractor warrants that the Work will meet the functional and performance requirements defined in the Contract.

3.17.8 Safety Representation

- A. The Contractor represents and warrants to the Owner that it has the capacity to train and supervise its employees, Subcontractors and Suppliers to ensure the Work complies with all safety requirements of the Contract Documents. The Contractor shall be responsible for executing the necessary safety training and supervision of its employees and Subcontractors, and acknowledges that the Owner is not responsible for training or supervising the Contractor's employees, except when noted for the purpose of enforcing compliance with these safety requirements.

SECTION 3.18: TERM & TERMINATION

3.18.1 Term of Contract (Through Work Completion)

- A. The Contract shall be in force through completion of all Work, Final Acceptance and final payment, including resolution of all disputes, claims, or suits, if any. Certain provisions of this Contract may extend past termination including Warranty provisions.

3.18.2 Termination for Convenience

- A. The Owner shall have the absolute right to terminate in whole or part the Contract, with or without cause, at any time after Award upon written notification of such termination.

- B. In the event of termination for convenience, the Owner will pay the Contractor for all disbursements and expenses that the Contractor has incurred, or those for which it becomes obligated prior to receiving the Owner's notice of termination. Owner will also pay the Contractor costs incurred less the reasonable resale value, of materials or equipment that the Contractor has already ordered, obtained or fabricated in connection with the Contract.
- C. Upon receipt of such notice of termination, the Contractor shall stop the performance of the Work hereunder except as may be necessary to carry out such termination and take any other action toward termination of the Work that the Owner may reasonably request, including all reasonable efforts to provide for a prompt and efficient transition as directed by the Owner.
- D. The Owner will have no liability to the Contractor for any cause whatsoever arising out of, or in connection with, termination (whether for convenience or default) including, but not limited to, lost profits, lost opportunities, or resulting change in business condition, except as expressly stated within these Contract Documents.

3.18.3 Termination for Default

- A. Owner may give the Contractor written notice to discontinue all Work under the Contract in the event that:
 - 1. The Contractor assigns or subcontracts the Work without prior written permission;
 - 2. Any petition is filed or any proceeding is commenced by or against the Contractor for relief under any bankruptcy or insolvency laws;
 - 3. A receiver is appointed for the Contractor's properties or the Contractor commits any act of insolvency (however evidenced);
 - 4. The Contractor makes an assignment for the benefit of creditors;
 - 5. The Contractor suspends the operation of a substantial portion of its business;
 - 6. The Contractor suspends the whole or any part of the Work to the extent that it impacts the Contractor's ability to meet the Work schedule, or the Contractor abandons the whole or any part of the Work;
 - 7. The Contractor, at any time, violates any of the conditions or provisions of the Contract Documents, or the Contractor fails to perform as specified in the Contract Documents, or the Contractor is not complying with the Contract Documents;
 - 8. The Contractor attempts to willfully impose upon the Owner items or workmanship that are, in the Owner's sole opinion, defective or of unacceptable quality;
 - 9. The Contractor breaches any of the representations or warranties contained herein;

10. The Contractor is determined, in the Owner's sole opinion, to have misrepresented the utilization of funds or misappropriated property belonging to the Owner; or
 11. There is any material change in the financial or business condition of the Contractor.
- B. If, within twenty-four (24) hours after service of such notice upon the Contractor, an arrangement satisfactory to the Owner has not been made by the Contractor for continuance of the Work, the Owner may terminate the Contract.
 - C. Once a Contractor is declared in default, the surety shall assume the Contractor's place in all respects and shall be paid by the Owner all monies, if any, due the Contractor at the time of such notice to discontinue, or any monies thereafter that may become due the Contractor in accordance with the terms of the Contract.
 - D. If the Contractor fails to make arrangements satisfactory to the Owner within ten (10) days after service to the Contractor of a notice to discontinue Work, and in the case where a Payment Bond and a Performance Bond are in effect, the surety has not exercised its option, then without further notice to the Contractor or the surety, the Owner may terminate the Contract and shall have the power to complete the Work herein described as it may determine. In such a case, the Owner shall have the right to take possession of and use any of the materials, plant, tools, equipment, supplies and property of any kind provided by the Contractor for the purpose of this Work.
 - E. The Owner will charge the expense of completing the Work to the Contractor and will deduct such expenses from monies due, or which at any time thereafter may become due, to the Contractor. If such expenses are more than the sum that would otherwise have been payable under the Contract, then the Contractor shall pay the amount of such excess to the Owner upon notice of the expenses from the Owner. The Owner shall not be required to obtain the lowest price for completing the Work under the Contract, but may make such expenditures that, in its sole judgment, shall best accomplish such completion. The Owner will, however, make reasonable efforts to mitigate the excess costs of completing the Work.
 - F. The Contract Documents shall in no way limit the Owner's right to all remedies for nonperformance provided under law or in equity, except as specifically set forth herein. In the event of termination for nonperformance, the Contractor shall immediately surrender all Work records to the Owner. In such a case, the Owner may offset any money owed to the Contractor against any liabilities resulting from the Contractor's nonperformance.
 - G. The Owner has no responsibility whatsoever to issue notices of any kind, including but not limited to deficient performance letters and scorecards, to the Contractor regarding its performance prior to default by Contractor for performance related issues.

- H. The Owner shall have no liability to the Contractor for termination costs arising out of the Contract, or any of the Contractor's subcontracts, as a result of termination for default.

SECTION 3.19: MISCELLANEOUS TERMS & CONDITIONS

3.19.1 Ambiguous Contract Provisions

- A. The parties agree that this Contract has been the subject of meaningful analysis and/or discussions of the specifications, terms and conditions contained in this Contract. Therefore, doubtful or ambiguous provisions, if any, contained in this Contract will not be construed against the party who physically prepared this Contract. The rule commonly known as "Fortius Contra Proferentem" will not be applied to this Contract or any interpretation thereof.

3.19.2 Amendments

- A. This Contract may not be altered or amended except in writing, signed by the Owner and the Contractor, or each of their duly authorized representatives.

3.19.3 Governing Law, Venue, and Waiver of Jury Trial

- A. This Agreement, and the rights and duties of the parties arising from or relating to this Agreement or its subject matter, shall be governed in all respects by the laws of the State of Florida, without regard to its conflicts of law provisions, and the parties to this Agreement irrevocably submit to the exclusive jurisdiction of the state and federal courts of the State of Florida. The parties to this Agreement further agree that any litigation with respect thereto shall be brought exclusively in the courts of Hardee County, Florida or the United States District Court, Middle District of Florida, located in Hillsborough County, Florida.
- B. **WAIVER OF JURY TRIAL. BY ENTERING INTO THIS AGREEMENT, THE CONTRACTOR AND THE CITY HEREBY EXPRESSLY WAIVE ANY RIGHTS THEY MAY HAVE TO A TRIAL BY JURY IN ANY LITIGATION ARISING OUT OF OR RELATED TO THIS AGREEMENT.**

3.19.4 Compliance with Laws, Public Records, Trade Secrets, and Publications

- A. Contractor and all subconsultants shall comply with all terms and conditions the State of Florida requires and all federal, state, and local laws, rules, regulations, orders, codes, criteria, and standards governing this project.
- B. Conflict of Interest. This Contract is subject to Chapter 112, Florida Statutes, and the Conflict of Interest Procedures for State Funded Grant Programs. Accordingly, Contractor acknowledges and agrees that: No member, officer, or employee of the Contractor or the City, during that person's tenure or for a period of two (2) years thereafter, shall have any interest, direct or indirect, in this Agreement or the proceeds thereof.
- C. Public Records. The parties acknowledge and agree that the City is a public agency subject to Chapter 119, Florida Statutes. To the extent Contractor is a company acting on behalf

of the City pursuant to Section 119.0701, Florida Statutes, Contractor must comply with all public records laws in accordance with Chapter 119, Florida Statutes. In accordance with Chapter 119, Florida Statutes, Contractor agrees to:

- (1) Keep and maintain all records that ordinarily and necessarily would be required by the City to perform the services under this Agreement.
- (2) Upon request from the City, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the costs provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (3) Ensure that public records that are exempt, or confidential and exempt, from public records disclosures are not disclosed as except as authorized by law for the duration of the Agreement term and following completion of the Agreement if the Contractor does not transfer the records to the City.
- (4) Upon completion of the services under this Agreement, at no cost, either transfer to the City all public records in the Contractor's possession or keep and maintain public records required by the City to perform the services. If the Contractor transfers all public records to the City upon completion of the services, the Contractor must destroy any duplicate public records that are exempt, or confidential and exempt, from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the services under this Agreement, the Contractor must meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City, in a format that is compatible with the information technology systems of the City.
- (5) **IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE COMPANY'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CITY'S CUSTODIAN OF PUBLIC RECORDS AT: 863-773-3131.**

If the Contractor does not comply with the provisions of this section, the City will enforce the Agreement provisions in accordance herewith and may unilaterally cancel this Agreement in accordance with Florida law.

- D. Trade Secrets and Proprietary Confidential Business Information. Documents submitted by Contractor which Contractor contends constitute trade secrets as defined in Sections 812.081 and 688.002, Florida Statutes, or confidential and propriety business information when held by the City as a utility owner, consistent with Section 119.0713(5), Florida Statutes, and which are clearly marked or stamped as confidential by the Contractor at the time of submission to the City, will not be subject to public access. However, should a requestor of public records challenge Contractor's claim of trade secret or confidential and proprietary business information, within five (5) calendar days of such challenge, Contractor must provide a separate written affidavit that includes an indemnification and release guarantee, as approved by the City Attorney or designee, to the City to support its claim that the alleged trade secrets or proprietary and confidential business information actually constitutes same as defined by law. Contractor must demonstrate

the need for confidentiality of the documentation by showing a business advantage or opportunity to obtain an advantage would be gained if the documentation were released. Otherwise, Contractor is required to timely seek a protective order in the Circuit Court of Hardee County to prevent the City's release of the requested records.

E. PUBLIC ENTITY CRIMES, SCRUTINIZED COMPANIES, AND ANTI-TRUST VENDOR VIOLATOR, PURSUANT TO SECTIONS 287.135, SECTION 215.473, AND SECTION 287.137, FLORIDA STATUTES.

- (1) Pursuant to Section 287.133(2)(a), Florida Statutes, Contractor hereby certifies that neither it nor its affiliate(s) have been placed on the convicted vendor list following a conviction for a public entity crime. If placed on that list, Contractor must notify the City immediately and may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies 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 s. 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.
- (2) Contractor hereby certifies that it: (a) has not been placed on the Scrutinized Companies that Boycott Israel List, nor is engaged in a boycott of Israel; (b) has not been placed on the Scrutinized Companies with Activities in Sudan List nor the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; and (c) has not been engaged in business operations in Cuba or Syria. If City determines that Contractor has falsely certified facts under this Paragraph or if Contractor is found to have been placed on the Scrutinized Companies Lists or is engaged in a boycott of Israel after the execution of this Agreement, City will have all rights and remedies to terminate this Agreement consistent with Section 287.135, Florida Statutes.
- (3) Contractor has a continuous duty, throughout the entire Term of this Agreement, and any renewal, to disclose to the City if the Contractor or any of its affiliates, as defined by section 287.137(1), Fla. Stat., are placed on the Antitrust Violator Vendor List. Pursuant to section 287.137, Fla. Stat., "A person or an affiliate who has been placed on the antitrust violator vendor list following a conviction or being held civilly liable for an antitrust violation may not submit a bid, proposal, or reply for any new contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply for a new contract with a public entity for the construction or repair of a public building or public work; may not submit a bid, proposal, or reply on new leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a new contract with a public entity; and may not transact new business with a public entity."

3.19.5 Cumulative Remedies

- A. Except as otherwise expressly provided in this Contract, all remedies provided for in this Contract shall be cumulative and in addition to and not in lieu of any other remedies

available to either party at law, in equity or otherwise.

3.19.6 Entire Agreement

- A. This Contract contains all of the understandings and agreements of the parties hereto in respect of the subject matter hereof as of the Effective Date of the Contract. Any and all prior understandings and agreements, expressed or implied, between the parties hereto in respect of the subject matter hereof shall be superseded hereby. Parol or extrinsic evidence will not be used to vary or contradict the express terms of this Contract.
- B. The Contract Documents are complementary; what is called for by one is binding as if called for by all. The Contractor shall, upon discovery, inform the Owner in writing of any conflict, error or discrepancy in the Contract Documents. Should the Contractor proceed with the Work prior to written resolution of the error or conflict by the Owner, all Work done is at the sole risk of the Contractor.

3.19.7 Expanded Definitions

- A. Unless otherwise specified, words importing the singular include the plural and vice versa and words importing gender include all genders. The term "including" means "including without limitation", and the terms "include", "includes" and "included" have similar meanings. Any reference in this Contract to any other agreement is deemed to include a reference to that other agreement, as amended, supplemented or restated from time to time. Any reference in the Contract to "all applicable laws, rules and regulations" means all federal, state and local laws, rules, regulations, ordinances, statutes, codes and practices.

3.19.8 Force Majeure

- A. No party shall be liable for any default or delay in the performance of its obligations under this Contract due to an act of God or other event to the extent that: (a) the non-performing party is without fault in causing such default or delay; (b) such default or delay could not have been prevented by reasonable precautions; and (c) such default or delay could not have been reasonably circumvented by the non-performing party through the use of alternate sources, work-around plans or other means. Such causes include, but are not limited to: act of civil or military authority (including but not limited to courts or administrative agencies); acts of God; war; terrorist attacks; riot; insurrection; inability of the Owner to secure approval, validation or sale of bonds; inability of the Owner or the Contractor to obtain any required permits, licenses or zoning; blockades; embargoes; sabotage; epidemics; fires; hurricanes, tornados, floods; or strikes.
- B. In the event of any delay resulting from such causes, the time for performance of each of the parties hereunder (including the payment of monies if such event actually prevents payment) shall be extended for a period of time reasonably necessary to overcome the effect of such delay, except as provided for elsewhere in the Contract Documents.
- C. In the event of any delay or nonperformance resulting from such causes, the party affected shall promptly notify the other in writing of the nature, cause, date of commencement and the anticipated impact of such delay or nonperformance. Such

written notice, including Change Orders, shall indicate the extent, if any, to which it is anticipated that any delivery or completion dates will be thereby affected.

3.19.9 Headings

- A. The division of this Contract into sections, the insertion of headings and/or index numbers and the provision of a table of contents are for convenience of reference only and are not to affect the construction or interpretation of this Agreement.

3.19.10 Language and Measurements

- A. All communication between the Contractor and the Owner, including all documents, notes on drawings, and submissions required under the Contract, will be in the English language. Unless otherwise specified in the Contract, the US System of Measurements shall be used for quantity measurement. All instrumentation and equipment will be calibrated in US System of Measures.

3.19.11 Nonwaiver

- A. Failure by either party to insist upon strict performance of any of the provisions of the Contract will not release either party from any of its obligations under the Contract.

3.19.12 Publicity and Advertising

- A. The Contractor shall not take any photographs for the purpose of making any announcements or release any information concerning the Contract or the Work to any member of the public, press or official body unless prior written consent is obtained from the Owner. The Owner is governed by the Florida Public Records Laws therefore all Contract Documents are available for public inspection, subject to certain statutory exemptions as set forth in Chapter 119, *Florida Statutes*. In addition, the Owner is governed by Florida Sunshine Laws and as such, certain meetings are required to be open to the public.

3.19.13 References

- A Unless otherwise specified, each reference to a statute, ordinance, law, policy, procedure, process, document, drawing, or other informational material is deemed to be a reference to that item, as amended or supplemented from time to time. All referenced items shall have the enforcement ability as if they are fully incorporated herein.

3.19.14 Relationship of the Parties

- A. The Contractor agrees that it shall perform the Work as an independent contractor and that it does not (a) have the power or authority to bind the Owner or to assume or create any obligation or responsibility, express or implied, on the Owner's part or in the Owner's name, except as may be authorized by the Owner under a separate written document, or (b) represent to any person or entity that it has such power or authority except as may be authorized by the Owner under a separate written document.

3.19.15 Severability

- A. In the event that any provision of this Contract is found to be unenforceable under applicable law, the parties agree to replace such provision with a substitute provision that most nearly reflects the original intentions of the parties and is enforceable under applicable law, and the remainder of this Contract shall continue in full force and effect.

3.19.16 Subcontracting or Assigning of Contract

- A. Each party agrees that it shall not subcontract, assign, delegate, or otherwise dispose of the Contract, the duties to be performed under the Contract, or the monies to become due under the Contract without the other party's prior written consent.
- B. The assignment of the Contract will not relieve either of the parties of any of its obligations until such obligations have been assumed in writing by the assignee. If the Contract is assigned by either of the parties, it will be binding upon and will inure to the benefit of the permitted assignee. The Contractor shall be liable for all acts and omissions of its assignee or its Subcontractor.
- C. The Contractor agrees to retain the services of such subcontractors and subconsultants as reasonably required to provide the Work required by this Agreement. All subcontractors and subconsultants will be under contract to the Contractor. The Contractor shall supervise and coordinate all subcontractors and subconsultants and shall be responsible to the Commission for their work.
- D. Any subcontractor or subconsultant retained by the Contractor shall be licensed in the State of Florida in the field applicable to such subcontractor or subconsultant's scope of work.
- E. The Contractor's choice of subcontractors must be approved by the Owner. While the Owner shall have the right to approve or reject each sub-consultant, such approval shall not be unreasonably withheld.
- F. In no event will the Contractor subcontract portions of the Work under this Agreement without the approval of the Owner. The Owner's approval of any subcontractor or subconsultant will not relieve the Contractor of its responsibility for the acts and omissions of such subcontractors or subconsultants. Any subcontract shall include, among other appropriate provisions, those provisions of this Agreement that by its terms are required to be provided in the subcontract agreement.
- G. The Owner may reasonably request that the Contractor contract with additional subcontractors or subconsultants in order to adequately perform the Work on the Project.

3.19.17 Survival

- A. The obligations of the Owner and the Contractor under this Contract that are not, by the express terms of this Contract, fully to be performed during the Term, shall survive the termination of this Contract for any reason.

3.19.18 Third Party Agreements

- A. Unless otherwise agreed in writing by the Owner, the Owner shall have no obligation to enter into any third party agreements under this Contract. Such third party agreements shall include, but not be limited to: joint check agreements, and revocable or irrevocable letters of direction with sureties. In the event the Owner agrees to execute any such agreement(s), then such agreement(s) shall incorporate additional language as required by the Owner.

3.19.19 Time and Date

- A. Unless otherwise specified, references to time of day or date mean the local time or date in Wauchula, Florida. If under this Contract any payment or calculation is to be made, or any other action is to be taken, on or as of a day that is not a regular business day for the Owner, that payment or calculation is to be made, and that other action is to be taken, as applicable, on or as of the next day that is a regular business day. Where reference is made to day or days, it means calendar days. Where reference is made to workday, workdays, business day, or business days, it means regular working days for the Owner.

3.19.20 Waiver of Claims

- A. A delay or omission by the Owner hereto to exercise any right or power under this Contract shall not be construed to be a waiver thereof. A waiver by the Owner under this Contract shall not be effective unless it is in writing and signed by the party granting the waiver. A waiver by a party of a right under, or breach of, this Contract shall not be construed to operate as a waiver of any other or successive rights under, or breaches of, this Contract.
- B. The Contractor's obligations to perform and complete the Work in accordance with the Contract shall be absolute. None of the following will constitute a waiver of any of the Owner's rights under the Contract: approval or payment of any progress payments or any other payments, including final payment; issuance of the Certificate of Substantial Completion or Certificate of Contract Completion; any use or occupancy of the Work by the Owner; nor any correction of faulty or defective work by the Owner.

3.19.21 Attorneys' Fees

- A. If any action or other proceeding is brought for the enforcement of this Agreement or due to any uncured dispute, breach, default, or misrepresentation in connection with any of the provisions of this Agreement, or to interpret this Agreement, the prevailing Party shall be entitled to recover from the other Party reasonable attorney's fees and other costs incurred in the prosecution of the action or proceeding.

[END OF SECTION]

DIVISION 4:
SUPPLEMENTAL CONDITIONS

The Contractor acknowledges to and for the benefit of the Owner that it understands that the products to be installed as a part of this contract must be in compliance with 255.0993, Florida Statutes, Public works projects; United States-produced iron and steel products.

(1) DEFINITIONS.— As used in this section, the term:

(a) “Governmental entity” means the state, or any office, board, bureau, commission, department, branch, division, or institution thereof, or a separate agency or unit of local government created or established by law or ordinance and the officers thereof. The term includes, but is not limited to, a county; a city, a town, or other municipality; or a department, a commission, an authority, a school district, a taxing district, a water management district, a board, a public corporation, an institution of higher education, or other public agency or body thereof authorized to expend public funds for the construction, maintenance, repair, renovation, remodeling, or improvement of public works.

(b) “Iron or steel product” means any product made primarily of iron or steel, including, but not limited to, lined or unlined pipes and fittings; bars and rods; wire, wire ropes, and link chains; forgings; grating and drainage products; access covers, hatches, manhole covers, and other castings; hydrants; electric transmission and distribution poles; tanks; flanges; pipe clamps and restraints; valves; structural steel and other steel mill products; materials made primarily of iron and steel within precast concrete; and other construction materials made primarily of iron or steel.

(c) “Manufacturing process” means the application of a process to alter the form or function of materials or elements of a product in a manner that adds value and transforms the materials or elements into a new finished product functionally different from a finished product produced merely from assembling materials or elements into a product without applying such a process.

(d) “Produced in the United States” means that, with respect to iron and steel, all manufacturing processes, from initial melting through application of coatings, occur in the United States, other than metallurgical processes to refine steel additives.

(e) “Public works project” means an activity paid for with any state-appropriated funds or state funds administered by a governmental entity which consists of the construction, maintenance, repair, renovation, remodeling, or improvement of a building, road, street, sewer, storm drain, water system, site development, irrigation system, reclamation project, gas or electrical distribution system, gas or electrical substation, or other facility, project, or portion thereof owned in whole or in part by any governmental entity.

(2) UNITED STATES-PRODUCED IRON AND STEEL REQUIREMENT.

(a) Notwithstanding any other law, a governmental entity entering into a contract for a public works project or for the purchase of materials for a public works project must include in the contract a requirement that any iron or steel product permanently incorporated in the project be produced in the United States.

(b) Paragraph (a) does not apply if the governmental entity administering the funds for a public works project or the purchase of materials for a public works project solely determines that any of the following applies:

1. Iron or steel products produced in the United States are not produced in sufficient quantities, reasonably available, or of satisfactory quality.
2. The use of iron or steel products produced in the United States will increase the total cost of the project by more than 20 percent.
3. Complying with paragraph (a) is inconsistent with the public interest.

(c) When steel and iron materials are used in a public works project, paragraph (a) does not prevent a minimal use of foreign steel and iron materials if:

1. Such materials are incidental or ancillary to the primary product and are not separately identified in the project specifications; and
2. The cost of such materials does not exceed one-tenth of 1 percent of the total contract cost or \$2,500, whichever is greater. For purposes of this subparagraph, the cost of such materials is that shown to be the value of the iron or steel products as they are delivered to the project.

(d) Electrical components, equipment, systems, and appurtenances, including supports, covers, shielding, and other appurtenances related to an electrical system, necessary for operation or concealment, except transmission and distribution poles, are not considered iron or steel products and are exempt from the requirements of paragraph (a).

(3) INTERNATIONAL AGREEMENTS.—This section shall be applied in a manner consistent with, and may not be construed to impair, the state's obligations under any international agreement.

(4) RULEMAKING.—The Department of Management Services shall develop guidelines and procedures by rule to implement this section.

(5) APPLICABILITY.—This section does not apply to contracts procured by the Department of Transportation subject to the Buy America requirements of 23 C.F.R. s. 635.410.

(6) SECTION 274A(e) OF THE IMMIGRATION AND NATIONALITY ACT AND E-VERIFY REQUIREMENTS

- a. The CITY shall consider the employment by any contractor of unauthorized aliens a violation of Section 274A(e) of the Immigration and Nationality Act. If the Contractor knowingly employs unauthorized aliens, such violation will be cause for unilateral cancellation of this Agreement.
- b. Effective January 1, 2021, public and private employers, contractors, and subcontractors must require registration with, and use of the E-Verify system in order to verify the work authorization status of all newly hired employees. Contractor shall:

- (1) Utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by Contractor during the term of the Agreement; and
- (2) Expressly require all persons (including subcontractors/subvendors/ subconsultants) assigned by Contractor to perform work or provide services pursuant to the Agreement with the City to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the subcontractors/subvendors/subconsultants during the term of the Agreement. Contractor acknowledges and agrees that the use of the U.S. Department of Homeland Security's E-Verify System during the term of this Agreement is a condition of the Agreement with the City.

By entering this Agreement with the City, Contractor becomes obligated to comply with the provisions of Section 448.095, Florida Statutes, "Employment Eligibility." This includes, but is not limited to, use of the E-Verify System to verify the work authorization status of all newly hired employees, and requiring all subcontractors to provide an affidavit to Contractor attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Contractor agrees to maintain a copy of such affidavit for the duration of this Agreement. Failure to comply with this section will result in the termination of this Agreement as provided in Section 448.095, Florida Statutes, and Contractor may not be awarded a public contract for at least one (1) year after the date on which the Agreement was terminated. Contractor will also be liable for any additional costs to City incurred as a result of the termination of this Agreement in accordance with this section.

DIVISION 5: FORMS

SECTION 5.1: FORMS TO SUBMIT WITH BID

The following forms must be completed and included in the Bidder's response to this Solicitation. This list represents the forms only and does not include all information and items necessary to be responsive to the Bid Solicitation.

- 5.1.1 Bid Form**
- 5.1.2 Bid Security**
- 5.1.3 Bidder's Qualifications**
- 5.1.4 Bidder's Statement of Disputes, Litigation, Arbitration, and Surety Completion**
- 5.1.5 Drug-Free Workplace Certificate**
- 5.1.6 Florida Trench Safety Act Acknowledgement**
- 5.1.7 Non-Collusion Affidavit**
- 5.1.8 Public Entity Crimes Statement**
- 5.1.9 Tabulation of Subcontractors and Suppliers**

SECTION 5.2: FORMS FOR CONVENIENCE

The following forms are included for convenience in the Bid Documents. The Owner may require additional forms during the performance of the Work:

- 5.2.1 Certificate of Final Completion Form**
- 5.2.2 Certification of Substantial Completion Form**
- 5.2.3 Change Order Form**
- 5.2.4 Contractor's Application for Payment Form**
- 5.2.5 Field Order Form**
- 5.2.6 Notice of Award Form**
- 5.2.7 Notice to Proceed Form**
- 5.2.8 Payment Bond Form**
- 5.2.9 Performance Bond Form**
- 5.2.10 Work Change Directive Form**

5.1.1 Bid Form

PROJECT: City of Wauchula Heard Bridge Road Water Main Loop
Project No. 10371.09

A. Bid Recipient

1. This Bid is submitted to:

City of Wauchula
Attn: City Manager
126 South 7th Street
Wauchula, FL 33873

2. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the Owner in the form included in the Bid Documents to perform all Work as specified or indicated in the Bid Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bid Documents.

B. Bidder's Acknowledgements

1. The Bidder accepts all of the terms and conditions of DIVISION 1: INSTRUCTIONS TO BIDDERS, including without limitation those dealing with the disposition of the Bid Security. The Bid will remain subject to acceptance for 120 days after the Bid Opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

C. Bidder's Representations

1. In submitting this Bid, the Bidder represents that:
 - a. The Bidder has received from the Issuing Office a complete set of Bid Documents and other related data identified in the Bid Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.

Addendum Date

_____	_____
_____	_____
_____	_____

- b. The Bidder has examined and carefully studied the Bid Documents, Addenda, and the other related data identified in the Bidding Documents, and provided the information to Subcontractors and Suppliers who have provided quotations to the Bidder for the Work.

- c. The Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- d. The Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- e. The Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in DIVISION 1: INSTRUCTIONS TO BIDDERS, and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in DIVISION 1: INSTRUCTIONS TO BIDDERS.
- f. The Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all additional or supplemental examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by the Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bid Documents to be employed by the Bidder, and safety precautions and programs incident thereto.
- g. The Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bid Documents
- h. The Bidder is aware of the general nature of the Work to be performed by the Owner and others at the Site that relates to the Work as indicated in the Bid Documents.
- i. The Bidder has correlated the information known to the Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bid Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bid Documents.
- j. The Bidder has given the Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that the Bidder has discovered in the Bid Documents, and the written resolution thereof by the Engineer is acceptable to the Bidder.

- k. The Bid Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- l. Bidder certifies Bidder's authority and qualification to do business in the state where the Project is located, that the Bidder is a state-certified Contractor in good standing and holds current registration with the Florida Construction Industry Licensing Board of the Florida Department of Professional Regulation, that the type of license is in a class that authorizes the Bidder to perform the general nature of the construction to be performed on this project, and that the Bidder's State Contractor's license number for the state of the project is shown on the Bid Form.
- m. Bidder certifies to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made. To support the efforts, any non American-made equipment proposed must be accompanied by proof of good-faith efforts to utilize American-made equipment such as written quotes, solicitations, advertisements, etc.

D. Bidder's Certification

- 1. Bidder certifies that:
 - a. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
 - b. The Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
 - c. The Bidder has not solicited or induced any individual or entity to refrain from bidding; and
 - d. The Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph:
 - i. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - ii. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of the Owner, (b) to establish Bid Prices at artificial non-competitive levels, or (c) to deprive the Owner of the benefits of free and open competition;

- iii. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Owner, a purpose of which is to establish Bid Prices at artificial, non-competitive levels; and
- iv. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

E. Basis of Bid

1. The Bidder has reviewed DIVISION 4: TECHNICAL SPECIFICATIONS; and will complete the Work in accordance with the Contract Documents for the following price(s):

a. BASE BID

Item No.	Description	Units	Quantity	Unit Price	Total Price
1	PVC Water Main				
a	8" PVC	LF	5,300		\$
2	HDPE Water Main (Horizontal Directional Drill)				
a	8" HDPE HDD	LF	1,820		\$
3	Fittings				
a	8" 11.25 degree Bend	EA	5		\$
b	8" 45 degree Bend	EA	7		\$
c	8" 90 degree Bend	EA	1		\$
d	8" x 6" Tee	EA	3		\$
e	8" x 6" Reducer	EA	1		\$
f	8" x 8" Tee	EA	1		\$
4	Valves and Appurtenances				
a	8" Gate Valve	EA	3		\$
5	Air Release Valves & Enclosures				
a	1" Air Release Valve & Enclosure	EA	1		\$
b	2" Air Release Valve & Enclosure	EA	1		\$
6	Tapping Sleeve & Valve (Wet Tap)				
a	8" x 8"	EA	1		\$
b	8" x 12"	EA	1		\$
7	Fire Hydrant Assembly	EA	4		\$
8	Concrete Driveway Restoration	SY	115		\$
9	Seeding & Mulch	LF	5,100		\$
10	Sodding	LF	50		\$
11	Maintenance of Traffic	LS	1		\$
12	Trench Safety Measures	LS	1		\$
13	Prevention, Control, & Abatement of Erosion/Water Pollution	LS	1		\$
14	Mobilization	LS	1		\$
15	Public Construction Bond	LS	1		\$

TOTAL BASE BID:

_____ (\$ _____)
(words)

(numerals)

The Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

F. Time of Completion

1. The Bidder agrees that the Work will be substantially complete within **210** calendar days after the issuance of the Notice to Proceed, and completed and ready for final payment in accordance with the Contract Documents within **240** calendar days after the date when the Contract Time commences to run.
2. The Bidder accepts the provisions of the Agreement as to liquidated damages.

G. Attachments to This Bid

1. The following documents are submitted with and made a part of this Bid:
 - a. DIVISION 5: FORMS – Bid Form
 - b. DIVISION 5: FORMS – Bid Security
 - c. DIVISION 5: FORMS – Bidder's Qualifications
 - d. DIVISION 5: FORMS – Bidder's Statement of Disputes, Litigation, Arbitration, and Surety Completion, Last Three (3) Years
 - e. DIVISION 5: FORMS – Drug-Free Workplace Certificate
 - f. DIVISION 5: FORMS – Florida Trench Safety Act Acknowledgement
 - g. DIVISION 5: FORMS – Non-Collusion Affidavit
 - h. DIVISION 5: FORMS – Public Entity Crimes Statement
 - i. DIVISION 5: FORMS – Tabulation of Subcontractors and Suppliers
 - j. Evidence of authority to do business in the State of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;

Contractor's License No.: _____.

H. Defined Terms

1. The terms used in this Bid with initial capital letters have the meanings stated in DIVISION 1: INSTRUCTIONS TO BIDDERS and DIVISION 4: SUPPLEMENTAL CONDITIONS.

I. Bid Submittal

1. This Bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)

(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____ (SEAL)

(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

State Contract License No. _____

A Corporation

Corporation Name: _____

_____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____

(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Corporate Seal)

Attest _____

(Signature of Corporate Secretary)

Date of Qualification to do business in Florida is ____/____/____.

State Contractor License No. _____.

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____(SEAL)

By: _____

(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____(SEAL)

By: _____

(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address _____

Phone No. _____ Fax No. _____

E-mail _____

SUBMITTED on _____, 20_____.

State Contractor License No. _____.

5.1.2 Bid Security Form

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID

Bid Due Date:

Project (Brief Description Including Location):

BOND

Bond Number:

Date (Not later than Bid due date):

Penal sum _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

_____(Seal)
Bidder's Name and Corporate Seal

By: _____
Signature and Title

Attest: _____
Signature and Title

SURETY

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Note: Above addresses are to be used for giving required notice.

- A. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to the Owner upon default of the Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Surety's liability.
- B. Default of Bidder shall occur upon the failure of the Bidder to deliver within the time required by the Bid Documents (or any extension thereof agreed to in writing by the Owner) the executed Agreement required by the Bid Documents and any performance and payment bonds required by the Bid Documents.
- C. This obligation shall be null and void if:
 - i. The Owner accepts the Bidder's Bid and the Bidder delivers within the time required by the Bid Documents (or any extension thereof agreed to in writing by the Owner) the executed Agreement required by the Bid Documents and any performance and payment bonds required by the Bid Documents, or
 - ii. All Bids are rejected by the Owner, or
 - iii. The Owner fails to issue a Notice of Award to the Bidder within the time specified in the Bid Documents (or any extension thereof agreed to in writing by the Bidder and, if applicable, consented to by Surety when required by Paragraph E hereof).
- D. Payment under this Bond will be due and payable upon default by the Bidder and within 30 calendar days after receipt by the Bidder and the Surety of written notice of default from the Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
- E. The Surety waives notice of any and all defenses based on or arising out of any time extension to issue the Notice of Award agreed to in writing by the Owner and the Bidder, provided that the total time for issuing the Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid Due Date without the Surety's written consent.
- F. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph D above is received by the Bidder and the Surety and in no case later than one year after the Bid Due Date.
- G. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
- H. Notices required hereunder shall be in writing and sent to the Bidder and the Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
- I. The Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

- J. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
- K. The term “Bid” as used herein includes a Bid, offer, or proposal as applicable.

5.1.3 Bidder's Qualifications

The Bidder warrants the truth and accuracy of all statements and answers herein contained.
(Include additional sheets if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID.

- A. LICENSE # and COMPANY'S NAME: _____
- B. CO. PHYSICAL ADDRESS: _____
- C. TELEPHONE NUMBER: (____) _____ D. FAX: (____) _____
- E. Bidding as an; individual: _____; a partnership: _____; a corporation: _____; a joint venture: _____.
- F. If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and addresses of venturers and the same if any venturer is a corporation for each such corporation, partnership, or joint venture:

- G. Your organization has been in business (under this firm's name) as a _____
_____ for how many years? _____
- H. Describe and give the date and owner of the last three government projects you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity). Include contact name and phone number:

- I. Have you ever been awarded additional time to complete work awarded to you during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.

- J. Have you ever been assessed liquidated damages under a contract during the past five (5) years? If so, state when, where (contact name, address, and phone number) and why.

K. Have you ever failed to complete work awarded to you? If so, state when, where (contact name, address, phone number) and why?

L. Have you ever been debarred or prohibited from bidding on a governmental entity's construction project? If yes, name the entity and describe the circumstances:

M. Name three individuals, governmental entities, or corporations for which you have performed similar work and to which you refer. Include contact name and phone number:

N. What specific steps have you taken to examine the physical conditions at or contiguous to the site, including but not limited to, the location of existing underground facilities?

O. What specific physical conditions, including but not limited to, the location of existing underground facilities have you found which will, in any manner, affect cost, progress, performance, or finishing of the work?

P. Will you subcontract any part of this Work? If so, describe which major portion(s):

i. If any, list (with contract amount) MBE/WBE's to be utilized:

Q. What equipment do you own to accomplish this Work?

R. What equipment will you purchase/rent for the Work? (specify which)

S. List the following in connection with the Surety which is providing the Bond(s):

Surety's Name: _____

Surety's Address: _____

Name, address and phone number of Surety's resident agent for service of process in Florida:

Phone: () _____

5.1.4 Bidder's Statement of Disputes, Litigation, Arbitration, and Surety Completion – Last Three (3) Years

[illegible]

5.1.5 Drug-Free Workplace Certificate

I, the undersigned, in accordance with 287.087, Florida Statutes hereby certify that

(Print or Type Name of Firm)

- ☐ Publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace named above and specifying actions that will be taken against violations of such prohibition.
- ☐ Informs employees about the dangers of drug abuse in the workplace; the firm's policy of maintaining a drug-free working environment and available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug-use violations.
- ☐ Gives each employee engaged in providing commodities or contractual services that are under bid or proposal a copy of the statement specified above.
- ☐ Notifies the employees that as a condition of working on the commodities or contractual services under bid or proposal, the employees 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 of Chapter 1893 or any controlled substance law of the State of Florida or the United States for a violation occurring in the workplace, no later than 5 days after such conviction, and requires employees to sign copies of such written statement to acknowledge their receipt.
- ☐ Imposes a sanction on or requires 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.
- ☐ Makes a good faith effort to continue to maintain a drug-free workplace through the implementation of the drug-free workplace program.

"As a person authorized to sign this statement, I certify that the business, firm, or corporation named above complies fully with the requirements set forth herein."

Authorized Signature

Date Signed

State of: _____

County of: _____

Sworn to and subscribed before me this _____ day of _____, 20 _____.

Personally known _____ or Produced Identification _____

Specify Type of Identification

Signature of Notary

My Commission Expires: _____

5.1.6 Certificate of Compliance with the Florida Trench Safety Act

The Bidder acknowledges sole responsibility for complying with the Florida Trench Safety Act (Act) and Occupational Safety and Health Administration's excavation safety standard 29 CFR 1926.650 (Subpart P as amended). The Bidder further acknowledges that included in the various items of the Proposal and in the Total Base Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The Bidder further identifies the costs to be summarized below:

	Trench Safety Method (Description)	Units of Measure (LF, SY)	Unit (Quantity)	Extended Cost	Unit Extended Cost
A.	_____	_____	_____	_____	_____
B.	_____	_____	_____	_____	_____
C.	_____	_____	_____	_____	_____
D.	_____	_____	_____	_____	_____
Total:					

Failure to complete the above may result in the Bid being declared non-responsive. The costs indicated above are provided to comply with the Act and shall not constitute grounds for any additional compensation to that listed for the separate line items of the Proposal Form.

By: _____

Bidder: _____

Date: _____

Authorized Signature: _____

State of: _____

County of: _____

Sworn to and subscribed before me this _____ day of _____, 20 _____.

Personally known _____ or Produced Identification _____

Specify Type of Identification

Signature of Notary

My Commission Expires: _____

5.1.7 Non-Collusion Affidavit of Prime Bidder

State of _____

County of _____

_____, being first duly sworn, deposes and says that:
Name

1. He/She is _____ of _____, the
Title Company
Bidder that has submitted the attached bid;

2. He/She 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 his/her 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 has refrained from bidding in connection with such Contract; nor 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 in the attached Bid or if any other Bidder; not has fixed any overhead, profit or cost element of the Bid Price, or the Bid Price of any other Bidder; not has secured through any collusion, conspiracy, connivance or unlawful agreement, any advantage against the City of Wauchula, Florida or any person interested in the proposed Contract; and

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.

(Signed)

Name

Title

Subscribed and sworn to before me this _____ day of _____, 20_____

Signature

Title

My commission expires _____

5.1.8 Sworn Statement Pursuant to Section 287.133(3)(A), Florida Statutes, on Public Entity Crimes

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

1. This sworn statement is submitted to the City of Wauchula, Florida by

(print individual's name and title)

for _____
(print name of entity submitting sworn statement)

whose business address is _____

And (if applicable) its Federal Employer Identification Number (FEIN) is _____.
(If the entity has no FEIN, include the Social Security of the individual signing this sworn statement: _____.)

2. I understand that a "public entity crime" as defined in Section 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 such an agency or political subdivision of any other state or of the United States and involving anti-trust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Section 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 stated trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that "affiliate" as defined in Section 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 in to 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.

5. I understand that a "person" as defined in Section 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.
6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (indicate which statement applies).

☐ 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 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 the 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 STATUES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

(Signature)

Sworn to and subscribed before me this _____ day of _____, 20_____.

Personally known _____

OR Produced Identification _____

Notary Public-State of _____

My commission expires _____

(Type of Identification)

(Printed, Typed or Stamped
Commissioned Name of Notary Public)

5.1.9 Tabulation of Subcontractors and Suppliers

The Undersigned states that the following is a full and complete list of the proposed Subcontractors and Suppliers on this Project and the class of work to be performed by each and that such list will not be added to nor altered without written consent to the Owner through the Engineer.

SUBCONTRACTOR OR SUPPLIER AND ADDRESS	MBE/WBE STATUS	CLASS OF WORK OR MATERIAL
1. _____ _____	_____	_____
2. _____ _____	_____	_____
3. _____ _____	_____	_____
4. _____ _____	_____	_____
5. _____ _____	_____	_____
6. _____ _____	_____	_____
7. _____ _____	_____	_____
8. _____ _____	_____	_____

BIDDER: _____

By: _____

Name: _____

Title: _____

Date: _____

5.2.1 Certificate of Final Completion

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

This Certificate of Final Completion applies to:

☐ All Work under the Contract Documents:

☐ The following specified portions:

Date of Final Completion

The Work to which this Certificate applies has been inspected by authorized representatives of the Owner, the Contractor and the Engineer, and found to be complete and final. The Date of Final Completion of the Project or portion thereof designated above is hereby declared.

Executed by Engineer

Date

Accepted by Contractor

Date

Accepted by Owner

Date

5.2.2 Certificate of Substantial Completion

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:	Date of Contract:	
Contractor:	Engineer's Project No.:	

This [tentative] [definitive] Certificate of Substantial Completion applies to:

☐ All Work under the Contract Documents: ☐ The following specified portions:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [revised tentative] [definitive] list of items to be completed or corrected, is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

☐ Amended Responsibilities ☐ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Engineer

Date

Accepted by Contractor

Date

Accepted by Owner

Date

5.2.3 Change Order Form

No. _____

Date of Issuance: _____

Effective Date: _____

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments: (List documents supporting change):

CHANGE IN CONTRACT PRICE:

Original Contract Price:

\$ _____

[Increase] [Decrease] from previously approved Change
Orders No. _____ to No. _____

\$ _____

Contract Price prior to this Change Order:

\$ _____

[Increase] [Decrease] of this Change Order:

\$ _____

Contract Price incorporating this Change Order:

\$ _____

CHANGE IN CONTRACT TIMES:

Original Contract Times: ☐ Working days ☐ Calendar days

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] from previously approved Change Orders
No. _____ to No. _____

Substantial completion (days): _____

Ready for final payment (days): _____

Contract Times prior to this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

Increase] [Decrease] of this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

Contract Times with all approved Change Orders:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

RECOMMENDED:

By: _____

Engineer (Authorized Signature)

Date: _____

Approved by Funding Agency (if applicable): _____

ACCEPTED:

By: _____

Owner (Authorized Signature)

Date: _____

ACCEPTED:

By: _____

Contractor (Authorized Signature)

Date: _____

Date: _____

5.2.4 Contractor's Application for Payment

Application for Payment No.: _____

Table with 3 columns: To (Owner): City of Wauchula, From (Contractor):, Via (Engineer):; Project:, Contract:; Owner's Contract No.:, Contractor's Project No.:, Engineer's Project No.:

APPLICATION FOR PAYMENT

Change Order Summary

Table with 3 columns: Number, Additions, Deductions. Includes rows for Approved Change Orders, TOTALES, and NET CHANGE BY CHANGE ORDERS.

CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment;

By: _____ Date: _____

- 1. ORIGINAL CONTRACT PRICE\$ _____
- 2. Net change by Change Orders\$ _____
- 3. CURRENT CONTRACT PRICE (Line 1 ± 2).....\$ _____
- 4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate).....\$ _____
- 5. RETAINAGE: a. _____ % x \$ _____ Work Completed\$ _____ b. _____ % x \$ _____ Stored Material\$ _____ c. Total Retainage (Line 5a + Line 5b)\$ _____
- 6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)\$ _____
- 7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)\$ _____
- 8. AMOUNT DUE THIS APPLICATION\$ _____
- 9. BALANCE TO FINISH, PLUS RETAINAGE (Column G on Progress Estimate + Line 5 above)\$ _____

Payment of: \$ _____ (Line 8 or other - attach explanation of other amount)

is recommended by: _____ (Engineer) _____ (Date)

Payment of: \$ _____ (Line 8 or other - attach explanation of other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding Agency (if applicable) _____ (Date)

Progress Estimate

Contractor's Application

For (contract):					Application Number:			
Application Period:					Application Date:			
A		B	Work Completed		E	F		G
Item			C	D		Total Completed and Stored to Date (C + D + E)	% (F) B	Balance to Finish (B - F)
Specification Section No.	Description	Scheduled Value	From Previous Application (C + D)	This Period	Materials Presently Stored (not in C or D)			
	Totals							

Progress Estimate

Contractor's Application

For (contract):					Application Number:			
Application Period:					Application Date:			
A		B	Work Completed		E	F		G
Item			C	D		Total Completed and Stored to Date (C + D + E)	% (F) B	Balance to Finish (B - F)
Specification Section No.	Description	Scheduled Value	From Previous Application (C + D)	This Period	Materials Presently Stored (not in C or D)			
	Totals							

Progress Estimate

Contractor's Application

For (contract):					Application Number:			
Application Period:					Application Date:			
A		B	Work Completed		E	F		G
Item			C	D		Total Completed and Stored to Date (C + D + E)	% (F) B	Balance to Finish (B - F)
Specification Section No.	Description	Scheduled Value	From Previous Application (C + D)	This Period	Materials Presently Stored (not in C or D)			
	Totals							

5.2.5 Field Order Form

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Attention:

You are hereby directed to promptly execute this Field Order for minor changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Engineer immediately and before proceeding with this Work.

Reference: _____
(Specification Section(s)) (Drawing(s) / Detail(s))

Description:

Attachments:

Engineer:	Date:
Receipt Acknowledged by (Contractor):	Date:

Copy to Owner

5.2.6 Notice of Award

Dated _____

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:	Date of Contract:	
Contractor:	Engineer's Project No.: 10371.09	

Bidder:

Bidder's Address: (send Certified Mail, Return Receipt Requested)

You are notified that your Bid dated , 2026 for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for Heard Bridge Road Water Main Loop.

The Contract Price of your Contract is _____

_____ copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

_____ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within five (5) days of the date you receive this Notice of Award.

1. Deliver to the Owner fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract Security [Bonds].
3. Other conditions precedent:

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

City of Wauchula

Owner

By: _____

Authorized Signature

Title

Copy to Engineer

5.2.7 Notice to Proceed

Dated _____

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:
Contractor:		
Contractor's Address: (send Certified Mail, Return Receipt Requested)		

You are notified that the Contract Times under the above contract will commence to run on _____. On or before that date, you are to start performing your obligations under the Contract Documents. The date of Substantial completion is _____ and the date of readiness for final payment is _____ [(or) the number of days to achieve Substantial Completion is _____ and the number of days to achieve readiness for final payment is _____].

Before you may start any Work at the Site, you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must [add other requirements]:

Contractor

Owner

Received by: _____

Given By: _____
Authorized Signature

Title

Title

Date

Date

Copy to Engineer

5.2.8 Payment Bond

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company:

Signature: _____ (Seal)

Name and Title:

SURETY

(Seal)

Surety's Name and Corporate Seal

By: _____

Signature and Title

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____

Signature and Title

CONTRACTOR AS PRINCIPAL SURETY

Company:

Signature: _____ (Seal)

Name and Title:

(Seal)

Surety's Name and Corporate Seal

By: _____

Signature and Title

(Attach Power of Attorney)

Attest: _____

Signature and Title:

City of Wauchula
Project No. 10371.09

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with Contractor:
 1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:
 - 6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2. Pay or arrange for payment of any undisputed amounts.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. DEFINITIONS
 - 15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 15.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3. Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY (*Name, Address and Telephone*)
Surety Agency or Broker:
Owner's Representative (*Engineer or Other Party*):

5.2.9 Performance Bond

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

CONTRACT

Effective Date of Agreement:

Amount:

Description (*Name and Location*):

BOND

Bond Number:

Date (*Not earlier than Effective Date of Agreement*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

_____(Seal)
Contractor's Name and Corporate Seal

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
 - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract; or
 2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
 - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
 - 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
 - 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
 7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
 8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located, and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
 9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.
 10. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
 11. Definitions.
 - 11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
 - 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
 - 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY (*Name, Address and Telephone*)

Surety Agency or Broker:

Owner's Representative (*Engineer or Other Party*):

5.2.10 Work Change Directive Form

No. _____

Date of Issuance: _____

Effective Date: _____

Project:	Owner: City of Wauchula	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

You are directed to proceed promptly with the following change(s):

Item No.	Description

Attachments (list documents supporting change):

Purpose for Work Change Directive:

- ☐ Authorization for Work described herein to proceed on the basis of Cost of the Work due to:
 - ☐ Nonagreement on pricing of proposed change.
 - ☐ Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time

Estimated change in Contract Price and Contract Times:

Contract Price \$ _____ (increase/decrease) Contract Time _____ (increase/decrease)
days

If the change involves an increase, the estimated amounts are not to be exceeded without further authorization.

Recommended for Approval by Engineer:	Date:
Authorized for Owner by:	Date:
Accepted for Contractor by:	Date:
Approved by Funding Agency (if applicable):	Date:

DIVISION 6:
TECHNICAL SPECIFICATIONS

**CITY OF WAUCHULA
HEARD BRIDGE WATER MAIN LOOP**

TECHNICAL SPECIFICATIONS

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APPENDICES

Appendix 1 - Permits

- FDEP Construction Permit
- FDEP ERP Permit
- Hardee County Right-Of-Way Permit

END OF SECTION

SECTION 01 10 00 SUMMARY

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Work by Contractor.
- B. Work by Owner.
- C. Owner Furnished Products.
- D. Contractor use of site
- E. Work sequence.

1.02 WORK BY CONTRACTOR

- A. Work under this contract includes:
 - 1. Approximately 5,300 linear feet of 8-inch PVC water main installed by open-cut and 1,820 linear feet of 8-inch HDPE installed by horizontal directional drills including fittings, valves, hydrants, appurtenances, and restoration.
- B. Associated with this Work is trench safety, traffic control, construction stakeout, dewatering, sheeting, restoration, as-built drawings, paving bonds, insurance supervision, testing, and all other related project work necessary to complete the project.
- C. Per paragraph 7.08.A. of the General Conditions, Contractor shall be responsible for obtaining all construction permits and licenses, except those listed in the Supplementary Conditions.
- D. Contractor will be responsible for complying with NPDES Stormwater Program. Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and filing a Notice of Intent (NOI) to use a general permit with FDEP. The NOI must be filed 48 hours prior to the start of construction activity. Permit fee is \$300.00. Contractor shall be responsible for maintaining erosion control and other devices to comply with the SWPPP. The Contractor shall provide two (2) copies of the NOI and SWPPP to the Owner and Engineer prior to the start of construction.

1.03 WORK BY OWNER

- A. Owner will obtain permits listed in the Supplementary Conditions that affect the installation of the Work.
- B. Copies of all permits obtained by the Owner are provided. All provisions and restrictions in these permits shall be part of the Contract requirements.

1.04 OWNER FURNISHED ITEMS

- A. Contractor shall supply all materials. There are no Owner furnished items.

1.05 CONTRACTOR USE OF SITE

- A. Nothing in this Contract shall imply that the Contractor shall have exclusive use of roadways on public and private lands of the execution to the work.
- B. All other lands including temporary construction easements deemed necessary by the Contractor for construction operations, temporary facilities, the storage of materials and equipment and other facilities required for the execution of the work shall be obtained by the Contractor.
- C. Limit use of site for work and for construction operations.
- D. Schedule work activities at the site during daylight hours on regular week days, except as described in Section 1.02(C) above. Any scheduled work activities outside this period shall be approved in writing by both the Owner and the Engineer.
- E. Contractor shall not limit ingress and egress of adjacent public and private properties.

1.06 WORK SEQUENCE

- A. Contractor shall follow a sequence of work activity that minimizes disturbances of the public and adjacent property owners and minimizes damage to components of the new work.
- B. Where installation of pipes is allowed by open cutting trenches in streets and driveways, the Contractor shall maintain alternative ingress and egress at all times of all such open-cut activities. Affected parties shall be notified at least 48 hours in advanced.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Procedure for Measurement.
- B. Incidental Work.
- C. Unit Prices.
- D. Substitution Procedures.
- E. Schedule of Values.
- F. Application for Progress Payments.
- G. Contract Modification Procedures.
- H. Application for Final Payment.

1.02 RELATED SECTIONS

- A. Section 01 30 00 - Submittal Procedures.

1.03 PROCEDURE FOR MEASUREMENT

- A. For lump sum items, payment shall be made based on the lump sum prices set forth in the Bid Form based on level of completed Work as determined by the accepted Schedule of Values.
- B. For field measure unit-price items, payment shall be based on the actual amount of Work accepted and for the actual amount of materials in place, as shown by the final measurements.
 - 1. All units of measurement shall be standard United States convention as applied by the specific items of work by tradition and as interpreted by the Engineer.
 - 2. After the Work is completed and before final payment is made, the Engineer will make final field measurements to determine the quantities of various items of Work accepted as the basis for final settlement.

1.04 INCIDENTAL WORK

- A. Incidental work items are items, specifically identified or not, that are an integral part of the completed project as required under the Contract Documents for which separate payment is not made. These items may include but are not limited to the following:
1. Pre-construction photographs and videos.
 2. Schedules, bonds, insurance, shop drawings, warranties, and other submittals required.
 3. Permits not obtained by the Owner.
 4. Project identification signs.
 5. Horizontal and vertical survey control and construction staking.
 6. Maintenance of traffic.
 7. Clearing, grubbing, stripping, and disposal of vegetation.
 8. Providing additional fill material.
 9. Transport and disposal of excess material and debris.
 10. Containment, clean-up, and disposal of water from existing mains and water used for pipeline flushing.
 11. Dust and erosion control, including the cost of implementing and maintaining controls in accordance with the Stormwater Pollution Prevent Plan for the project.
 12. Utility crossings and minor relocations unless payment is otherwise made.
 13. Materials, labor, and equipment necessary to protect the structural integrity of existing paved roadways. Incidental damage to paved roadways, including damage to the existing subbase, base, and/or asphalt concrete pavement, shall be restored/repared at the Contractor's sole expense to the satisfaction of the Owner.
 14. Materials, labor, and equipment necessary to protect the integrity and operation of existing utilities. Any damage to existing utilities shall be repaired/replaced at the Contractor's sole expense to the satisfaction of the Owner.
 15. Temporary utility service.
 16. Temporary barriers and fences for the protection and security of the work site and adjoining properties.
 17. Final or temporary right-of-way restoration. All materials and Work for right-of-way restoration shall be in accordance with FDOT Standard Specifications for Road and Bridge Construction, latest edition.
 18. Repair and restoration of property, including the removal and replacement of stabilized roadway and driveways, guard rails, curbs, drainage structures, signs, traffic loop detectors, pavement markings, utility poles, mailboxes, seeding and sodding, landscaping and irrigation, and other items impacted by construction.
 19. On-going and final cleanup.

20. Project record documentation, including the provision of "as-built" drawings certified by a Registered Professional Land Surveyor.
21. All other items required for completion of the Contract.

1.05 UNIT PRICES

A. ITEM 1 - PVC Water Main

1. Water main shall be paid at the Contract Unit Price per linear foot of installed pipe. The measurement shall be made in place, along the center line of the pipe.
2. Contract Unit Price shall be full compensation for: excavation; bedding; backfill; furnishing and installing pipe and joints (including restrained joints); furnishing and installing all gaskets, nuts, bolts, and hardware necessary for the various pipe joints (including restrained joints and pipe restraints); furnishing and installing temporary caps; dewatering; compaction of backfill to required density; furnishing and installing tracer wire and marker tape; flushing and cleaning; testing; erosion control; final clean-up; coordination with other utilities; and all other incidental items of Work not paid for under other items.

B. ITEM 2 - HDPE Water Main (Horizontal Directional Drill)

1. HDPE Horizontal directional drill (HDD) shall be paid for at the Contract Unit Price per linear foot of HDD installed.
2. The Contract Lump Sum Price shall be payment in full for furnishing all labor, materials, tools, and equipment required for all clearing, excavating, directional drilling of pilot holes, pull-back of piping, drilling mud pumping/recirculation systems, pipe, testing, backfilling, restoration, erosion control, final cleanup, and all other incidental items of Work not paid for under other items. The Contractor shall include in the Contract Unit Price shall account for any allowance for horizontal deflection, vertical deflection, and all wastage.

C. ITEM 3 - Fittings

1. Fittings shall be paid at the Contract Unit Price for each fitting installed of the size and type identified.
2. The Contract Unit Price shall be payment in full for all excavation, furnishing and installing the fitting with joint restraint, testing, backfilling, restoration, erosion control, final cleanup, and all other incidental items of Work not paid for under other items.

D. ITEM 4 - Valves and Appurtenances

1. Valves and Appurtenances shall be paid at the Contract Unit Price for each valve installed of the size and type identified.
2. The Contract Unit Price shall be payment in full for all excavation, furnishing and installing the valve, valve box, and joint restraint, testing,

dewatering, backfilling, restoration, erosion control, final cleanup, and all other incidental items of Work not paid for under other items..

E. ITEM 5 - Air Release Valve and Enclosure

1. Air Release Valve and Enclosure shall be paid at the Contract Unit Price for each air release valve installed.
2. The Contract Unit Price shall be payment in full for all material, labor, equipment, and tools required to install and air release valve. The Contract Unit Price shall also include, but is not limited to, air release valve, enclosure, tapping saddles, all necessary adapters, couplings, excavation and installation of joint restraints on existing pipe, hardware, dewatering, backfilling, final grading, coordination with other utilities, and all other incidental items of Work not paid for under other items.

F. ITEM 6 - Tapping Sleeve and Valve (Wet Tap)

1. Tapping Sleeve and Valve shall be paid for at the Contract Unit Price for each wet tap connection installed.
2. The Contract Unit Price shall be payment in full for all excavation, furnishing and installing the tapping sleeve and valve. The Contract Unit Price shall also include, but is not limited to, tapping sleeve, tapping valve, valve operators, valve extension stems and valve boxes, all necessary adapters, couplings, and appurtenances to make the final connection, joint restraints, hardware, dewatering, excavation bedding, backfilling, final grading, and all other incidental items of Work not paid for under other items. All final connections to existing water lines shall be made by the Contractor after the Contractor has received clearance from the Florida Department of Environmental Protection for the new water line.

G. ITEM 7 - Fire Hydrant Assembly

1. Fire Hydrant Assemblies shall be paid for at the Contract Unit Price for each fire hydrant assembly installed.
2. The Contract Unit Price shall be payment in full for all excavation, furnishing and installing the hydrant lead, hydrant, sample tap, isolation valve, valve box, and joint restraint, testing, backfilling, restoration, mulching, seeding, sodding, erosion control, final cleanup, and all other incidental items of Work not paid for under other items.

H. ITEM 8 - Concrete Driveway Restoration

1. Concrete Driveway Restoration shall be paid for at the Contract Unit Price per square yard of driveway disturbed within the limits of construction.
2. The Contract Unit Price shall be full compensation for removing and disposing of the existing pavement/driveway material, furnishing and installing all material to restore the pavement/driveway to original

depth and width, repair of all areas disturbed, repair/replacement of mitered end sections and cross drains, and all other incidental items of Work not paid for under other items. All materials and Work shall be in accordance with FDOT Standard Specifications for Road and Bridge Construction, latest edition. All areas of this item disturbed due to the Contractor's operations which are not within the limits of construction as shown on the Drawings shall also be satisfactorily repaired at no additional cost to the Owner.

I. ITEM 9 - Seeding and Mulch

1. Seeding and mulch shall be paid at the Contract Unit Price per linear feet of grass disturbed measured along the center line of pipe.
2. The Contract Unit Price shall be full compensation for supplying and installing seed and mulch, ground preparation, fertilizer, equipment, water, and all other incidental items of Work not paid for under other items. Seed type shall match the existing predominate type. All areas of this item disturbed due to the Contractor's operations which are not within the area described above shall be satisfactorily restored at no additional cost to the Owner

J. ITEM 10 - Sodding

1. Sodding shall be paid at the Contract Unit Price per linear feet of grass disturbed measured along the center line of pipe.
2. The Contract Unit Price shall be full compensation for supplying and installing sod, ground preparation, fill, fertilizer, equipment, water, and all other incidental items of Work not paid for under other items. Sod type shall match the existing predominate type. All areas of this item disturbed due to the Contractor's operations which are not within the area described above shall be satisfactorily restored at no additional cost to the Owner

K. ITEM 11 - Maintenance of Traffic

1. Maintenance of Traffic shall be paid at the Contract Lump Sum Price. Payment for Maintenance of Traffic shall be made in proportion to the pipe installed in road rights-of-way.
2. The Contract Lump Sum Price shall be full compensation for all traffic control including plan preparation and submittal, signs and barricades, flaggers, uniformed officers and all other incidental items of Work not paid for under other items. The nature and extent shall be as described in the Florida DOT Standard Specifications for Road and Bridge Construction.

- L. ITEM 12 - Trench Safety Measures
1. Trench Safety Measures shall be paid at the Contract Lump Sum Price. Payment for Trench Safety Measures shall be made in proportion to the quantity of pipe installed.
 2. The Contract Lump Sum Price shall be full compensation for all trench boxes, sheeting, bracing and shoring in excavations and all other incidental items of Work not paid for under other items. The nature and extent shall be as described in the Florida Trench Safety Act and OSHA Standard 29 CFR Part 1926.650 Subpart P.
- M. ITEM 13 - Prevention, Control, and Abatement of Erosion/Water Pollution
1. Prevention, Control, and Abatement of Erosion/Water Pollution shall be paid at the Contract Lump Sum Price.
 2. The Contract Lump Sum Price shall be full compensation for all work including labor, materials, and equipment necessary for the prevention, control, and abatement of erosion and water pollution related to the construction of the Work required by the Contract Documents. Work under this item shall also include all regulatory permitting including NPDES NOI for General Permit for Construction Projects and the preparation of the erosion and sediment control plan.
- N. ITEM 14 - Mobilization
1. Mobilization shall be paid at the Contract Lump Sum Price. Payment for Mobilization shall be made as follows: 30% of the item shall be complete at the end of the first month (or pay period) of the contract time; 60% of the item shall be complete when 30% of the original contract is complete; 100% of the item shall be complete when 60% of the original contract is complete.
 2. The Contract Lump Sum Price shall be full compensation for transporting equipment, labor and materials to the site at the beginning of and throughout the Project and removing said items at the end of the
- O. ITEM 15 - Public Construction Bond
1. Public Construction Bond shall be paid at the Contract Lump Sum Price. Payment shall be made at the end of the first month.
 2. The Contract Lump Sum Price shall be full compensation for the Public Construction Bond as Required for this Bid.

1.06 ALTERNATES

- A. None

1.07 SUBSTITUTION PROCEDURES

- A. Engineer will consider requests for Substitutions only within 30 days after date established in Notice to Proceed following procedure required in Section 01 60 00 - Product Requirements.

1.08 SCHEDULE OF VALUES

- A. Submit typed schedule on Application for Payment form (Section 00 62 76) or equivalent Contractor's standard form or electronic media printout acceptable to the Owner and Engineer.
- B. Submit final Schedule of Values based on Bid unit prices in duplicate within fifteen (15) days after date of Owner-Contractor Agreement.
- C. Include within each line item a direct proportional amount of Contractor's overhead and profit as included in the Bid submittal.
- D. Revise schedule to list approved Change Orders with each Application for Payment.

1.09 APPLICATION FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Present required information in typewritten form.
- C. Form: Section 00 62 76 - Application for Payment Form. Contractor's standard form or electronic media printout will be considered.
- D. Execute certification by signature of authorized officer.
- E. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for units of work performed and for stored Products.
- F. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
- G. Submit three copies of each Application for Payment. Electronic copy shall be acceptable with prior approval by Engineer and Owner.
- H. Include the following with the application:
 - 1. Transmittal letter identifying project and Contractor.
 - 2. Updated Construction Progress Schedule as specified in Section 01 30 00.
 - 3. Current construction photographs specified in Section 01 30 00.

- I. When Engineer requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.

1.10 CONTRACT MODIFICATION PROCEDURES

- A. The Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by EJCDC Article 9.05 by issuing supplemental instructions.
- B. The Engineer may issue a Notice of Change which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, and a change in Contract Time for executing the change. Contractor will prepare and submit an estimate within five (5) days.
- C. Stipulated Sum/Price Change Order: Based on Notice of Change and Contractor's fixed price quotation.
- D. Unit Price Change Order: For pre-determined unit prices, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of Work which are not pre-determined, execute Work under a Work Directive Change. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- E. Work Directive Change: Engineer may issue a directive, on EJCDC Work Directive Change (Section 00 63 49) signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.
- F. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- G. Maintain detailed records of Work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- H. Change Order Forms: EJCDC Change Order (Section 00 63 63).
- I. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.11 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

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SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Project Management and Coordination.
- B. Construction Progress Documentation.
- C. Submittal Procedures.

1.02 PROJECT MANAGEMENT AND COORDINATION

- A. Project Coordination
 - 1. Coordinate scheduling, submittals, and Work of the various Sections of specifications to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
 - 2. Verify that utility requirements characteristics of operating equipment are compatible with utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connection to, and placing in service, such equipment.
 - 3. Coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
 - 4. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.
- B. Preconstruction Conference
 - 1. Owner will schedule a conference after Notice of Award.
 - 2. Attendance Required: Owner, Engineer and Contractor.
 - 3. Agenda:
 - a. Execution of Owner-Contractor Agreement.
 - b. Submission of executed bonds and insurance certificates.
 - c. Distribution of Contract Documents.
 - d. Submission of list of Subcontractors, list of products, Schedule of Values, and progress schedule.
 - e. Designation of personnel representing the parties in Contract, and the Engineer.

- f. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
- g. Scheduling.
- h. Scheduling activities of geo-technical Engineer.

C. Progress Meetings

- 1. Attend and participate in meetings throughout progress of the Work at maximum monthly intervals.
- 2. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Engineer, as appropriate to agenda topics for each meeting.
- 3. Agenda:
 - a. Review minutes of previous meetings.
 - b. Review of Work progress.
 - c. Field observations, problems, and decisions.
 - d. Identification of problems which impede planned progress.
 - e. Review of submittals schedule and status of submittals.
 - f. Review of off-site fabrication and delivery schedules.
 - g. Maintenance of progress schedule
 - h. Corrective measures to regain projected schedules.
 - i. Planned progress during succeeding Work period.
 - j. Coordination of projected progress.
 - k. Maintenance of quality and Work standards.
 - l. Effect of proposed changes of progress schedule and coordination.
 - m. Other business relating to Work.
- 4. Engineer will have the responsibility for preparing the agenda, presiding at the meeting, recording the minutes, and distributing copies to the Owner, Contractor, participants, and those affected by decisions made.

1.03 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit network analysis diagram using the critical path method, generally as outlined in Associated General Contractors of America (AGC) publication "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry
- B. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.

- C. Indicate estimated percentage of completion for each item of Work at each submission.
- D. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner.
- E. Submit initial Progress Schedules in duplicate within 15 days after date of Owner-Contractor Agreement. After review by Engineer revise and resubmit as required. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.

1.04 SUBMITTAL PROCEDURES

- A. Procedures.
 - 1. Deliver submittals to Engineer at Chastain-Skillman | DCCM, 205 E. Orange St, Ste. 110, Lakeland, Florida 33801.
 - 2. Transmit each item with a transmittal form identifying project, Contractor, subcontractor, major supplier; identify pertinent drawing sheet and detail number, and Specification section number, as appropriate. Submittals shall only be accepted from the Contractor.
 - 3. Comply with progress schedule for submittals related to Work progress. Submit all Shop Drawings, Product Data, and Samples in a prompt and timely manner so that there will be no delay to Work due to absence of data. Coordinate submittal of related items.
 - 4. Review Shop Drawings, Product Data and Samples prior to submission. Contractor shall stamp, date and sign each submittal to indicate that the subject matter conforms to the requirements of the Contract Documents.
 - 5. Determine and verify:
 - a. Field measurements.
 - b. Field construction criteria.
 - c. Catalog numbers and similar data.
 - d. Conformance with specifications.
 - 6. Coordinate each submittal with requirements of the Work and of the Contract Documents.
 - 7. Notify the Engineer in writing, at time of submission, identifying any deviations in the submittals from requirements of the Contract Documents.
 - 8. Should any submitted item require modification to any surrounding structure or appurtenance detailed on the drawings, details of the modifications shall also be submitted. The cost of any modifications shall be completed at no additional cost to the Owner.
 - 9. Begin no fabrication or Work which requires submittals until return of submittals with Engineer review comments.
 - 10. Provide submittals in a prompt and timely manner so as not to delay the Work. Delays in Work caused by incomplete or incorrect submittals or

re-submittals shall not be grounds for time extensions or additional costs to the Owner.

11. After Engineer review of submittal, revise and resubmit as required, identifying changes made since previous submittal.
 12. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.
 13. Provide reasonable assurance that materials and equipment delivered to worksite conforms to the reviewed shop drawings. Notify the Engineer of any observed deviations from the shop drawings.
- B. Shop Drawings.
1. Shop drawings shall be assigned a sequential number for ease in identification. Re-submittals shall retain the assigned number with an alphabetic suffix.
 2. Drawings shall be presented in a clear and thorough manner. Details shall be identified by reference to drawing and detail number, and specification section number.
 3. Minimum sheet size: 8-1/2" x 11".
 4. After review, distribute in accordance with Procedures, above.
- C. Product Data
1. Preparation
 - a. Clearly mark each copy to identify pertinent products or models.
 - b. Show performance characteristics and capacities.
 - c. Show dimensions and clearances required.
 - d. Show wiring or piping diagrams and controls.
 2. Manufacturer's standard schematic drawings and diagrams:
 - a. Modify drawings and diagrams to delete information which is not applicable to the Work.
 - b. Supplement standard information to provide information specifically applicable to the Work.
 3. After review, distribute in accordance with Article on Procedures above.
- D. Manufacturer's Instructions
1. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting and finishing in quantities specified for product data.
 2. Identify conflicts between manufacturer's instructions and Contract Documents.
- E. Manufacturer's Certifications
1. When specified in individual specification Sections, submit manufacturer's certificate to Engineer for review.

2. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
3. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

F. Samples

1. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing Work.
2. Submit samples of finishes from the full range of manufacturers' standard colors and textures for Engineer's selection.
3. Include identification on each sample, with full Project information.
4. Reviewed samples which may be used in the Work are indicated in individual specification sections.

G. Submission Requirements

1. Hard copy submittals:
 - a. Shop Drawings: Submit the number of opaque reproductions which the Contractor requires, plus four (4) copies which will be retained by the Engineer.
 - b. Product Data: Submit the number of copies which the Contractor requires, plus four (4) which will be retained by the Engineer.
 - c. Samples: Submit the number of samples which the Contractor requires (minimum three), plus four (4) which will be retained by the Engineer.
 - d. Submittals shall include all information required in paragraph 1.04.G.3. of this Section.
2. Electronic Submittals:
 - a. Alternatively an electronic submittal may be made for Shop Drawings and Product Data. Submit one (1) PDF to the Engineer via email or other electronic transmission method approved by the Engineer. PDF format shall allow inserting comments into the document.
 - b. A PDF transmittal sheet shall be included with the submittal.
 - c. Submittals shall include all information required in paragraph 1.04.G.3. of this Section.
3. Submittals shall contain:
 - a. The date of submission.
 - b. The Project title and number.
 - c. Contract identification.
 - d. The names of:
 - i. Contractor
 - ii. Subcontractor
 - iii. Supplier

- iv. Manufacturer
 - e. Identification of the product, with the specification section number.
 - f. Field dimensions, clearly identified as such.
 - g. Relation to adjacent or critical features of the Work or materials.
 - h. Applicable standards, such as ASTM or Federal Specification numbers.
 - i. Identification of deviations from Contract Documents.
 - j. A 4" x 4" blank space for Engineer stamps.
 - k. Contractor's stamp, initialed or signed, certifying to review of submittals, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and of Contract Documents.
- 4. Resubmissions shall contain:
 - a. Date of previous submission.
 - b. Revised drawings and data responding to comments of initial review.
 - c. Identification of other revisions made on shop drawings and reason for revisions.
 - 5. Failure of Contractor to comply with these requirements shall be cause for rejection of any non-complying submittal.

1.05 PHOTO DOCUMENTATION

- A. Preconstruction Video Route/Site Survey
 - 1. A video route/site survey is required for all construction areas.
 - 2. All video recordings must be made in a digital, continuous running audio-video format. Audio-video recordings to be provided on standard CD or thumb drive format suitable for play-back on standard computer drives.
 - 3. All video recording shall be done during times of good visibility. No taping shall be done during periods of visible precipitation.
 - 4. All CDs or thumb drives shall be properly identified as to location, time, and date. Locations must be identified with respect to street name and station numbering.
 - 5. Two copies of the CDs or thumb drives shall be provided to the Engineer/Owner prior to construction.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Regulatory Requirements.
- B. References.
- C. Quality Assurance.
- D. Quality Control.

1.02 RELATED SECTIONS

- A. Section 01 20 00 - Price and Payment Procedures: Allowances.
- B. Section 01 30 00 - Administrative Requirements: Submission of Manufacturers' Instructions and Certificates.
- C. Section 01 60 00 - Product Requirements: Requirements for material and product quality.
- D. Section 01 45 29 - Testing Laboratory Services

1.03 REFERENCES

- A. Conform to reference standard by date of issue current on date of Contract Documents.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification for Engineer before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 QUALITY ASSURANCE

A. Manufacturers' Field Services and Reports

1. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment as applicable, and to initiate instructions when necessary.
2. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
3. Submit report in duplicate within 30 days of observation to Engineer for review.

B. Field Samples

1. Install field samples at the site as required by individual specifications Sections for review.
2. Acceptable samples represent a quality level for the Work.
3. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Engineer.

C. Mock-Up

1. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals, and finishes.
2. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by Engineer.

1.05 QUALITY CONTROL

A. Field Quality Control Procedures

1. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
2. Comply fully with manufacturers' instructions, including each step in sequence.
3. Should manufacturers' instructions conflict with Contract Documents, request written clarification from Engineer before proceeding.
4. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
5. Perform Work by persons qualified to produce workmanship of specified quality.
6. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

- B. Testing and Inspection Services
1. Contractor shall appoint, employ, and pay for services of an independent testing laboratory to perform specified inspection and testing.
 2. If allowance is specified in Section 01 20 00, Contractor shall pay for services from Allowance.
 3. Employment of testing laboratory shall in no way relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
 4. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by Engineer. Payment for retesting will be charged to Contractor by deducting inspection or testing charges from the Contract Sum/Price.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

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SECTION 01 45 29
TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Selection and payment.
- B. Contractor submittals.
- C. Laboratory responsibilities.
- D. Laboratory reports.
- E. Limits on testing laboratory authority.
- F. Contractor responsibilities.
- G. Schedule of inspections and tests.

1.02 RELATED SECTIONS

- A. Section 01 20 00 - Price and Payment Procedures: Testing allowance, if specified.
- B. Section 01 30 00 - Submittals: Manufacturer's certificates.
- C. Section 01 40 00 - Quality Requirements: Testing and Inspection Services.
- D. Section 01 70 00 - Contract Closeout: Project Record Documents.
- E. Individual Specification Sections: Inspections and tests required, and standards for testing.

1.03 REFERENCES

- A. ANSI/ASTM D3740 - Practice for Evaluation for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- B. ANSI/ASTM E329 - Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

1.04 SELECTION AND PAYMENT

- A. Refer to Section 01 40 00 - Quality Requirements for testing laboratory selection and payment.

1.05 QUALITY ASSURANCE

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

1.06 CONTRACTOR SUBMITTALS

- A. Prior to start of Work, submit testing laboratory name, address, and telephone number, and names of full time registered Engineer and responsible officer.
- B. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards (NBS) during most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.

1.07 LABORATORY RESPONSIBILITIES

- A. Test samples of mixes submitted by Contractor.
- B. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
- C. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.
- E. Promptly notify Engineer and Contractor with copies to Owner of observed irregularities or non-conformance of Work or Products.
- F. Perform additional inspections and tests required by Engineer.

- G. Attend pre-construction conferences and progress meetings.

1.08 LABORATORY REPORTS

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

1.09 LIMITS ON TESTING LABORATORY AUTHORITY

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

1.10 CONTRACTOR RESPONSIBILITIES

- A. Deliver to laboratory at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.
- B. Cooperate with laboratory personnel, and provide access to the Work.
- C. Provide incidental labor and facilities to provide access to Work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.

- D. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring inspection and testing services.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Temporary Utilities
- B. Temporary Controls
- C. Construction Facilities

1.02 RELATED REQUIREMENTS

- A. Section 01 70 00 - Execution and Closeout Procedures: Final Cleaning.

1.03 ELECTRICITY, LIGHTING

- A. Provide and pay for power service required from utility source.
- B. Provide separate metering and pay for cost of energy used.
- C. Provide power outlets for construction operations, with branch wiring and distribution boxes located to allow service by means of construction-type power cords.
- D. Provide main service disconnect and over-current protection at convenient location.

1.04 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.05 TEMPORARY WATER SERVICE

- A. Connect to the City system.
- B. Owner will pay cost of water used. Exercise measures to conserve water.
- C. Extend branch piping with outlets located so water is available by hoses with threaded connections.

1.06 SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures.
- B. Existing sanitary facilities within buildings may not be utilized.

1.07 BARRIERS

- A. Provide as required to prevent public entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barriers around trees and plants designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials and puddling or continuous running water.

1.08 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic and storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.09 SECURITY

- A. Provide security program and facilities to protect Work, existing facilities and Owner's operations from unauthorized entry, vandalism and theft. Coordinate with Owner's security program.

1.10 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment as required to comply with Specifications.
- B. Comply with County, City, Water Management District, and Department of Environmental Protection standards for runoff water quality.

1.11 PARKING

- A. Arrange for temporary surface parking areas to accommodate construction personnel.
- B. When site space is not adequate, provide additional off-site parking.

1.12 CLEANING DURING CONSTRUCTION

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove waste materials, debris and rubbish from site periodically and dispose of off-site.

1.13 REMOVAL

- A. Remove temporary above-ground or buried utilities, materials, equipment, services and construction prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provision of temporary storm water pollution prevention measures.

1.02 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.
- B. ASTM D 4439 - Geosynthetics
- C. ASTM D 4491 - Water Permeability of Geotextiles by Permittivity
- D. ASTM D 4533 - Trapezoid Tearing Strength of Geotextiles
- E. ASTM D 4632 - Grab Breaking Load and Elongation of Geotextiles
- F. ASTM D 4751 - Determining Apparent Opening Size of a Geotextile
- G. ASTM D 4873 - Identification, Storage, and Handling of Geosynthetic Rolls and Samples
- H. FDOT Standard Specifications for Road and Bridge Construction

1.03 GENERAL

- A. The Contractor shall implement the storm water pollution prevention measures specified in this section in a manner which will meet the requirements of the National Pollution Discharge Elimination System (NPDES) permit.

1.04 SUBMITTALS

- A. The following shall be submitted in accordance with Section 01 30 00 - Administrative Requirements:
 - 1. Mill Certificate or Affidavit: Certificate attesting that the Contractor has met all specified requirements.

1.05 EROSION AND SEDIMENT CONTROLS

- A. **Stabilization Practices:** The stabilization practices to be implemented shall include temporary seeding, mulching, protection of trees, preservation of mature vegetation, etc. On his daily CQC Report, the Contractor shall record the dates when the major grading activities occur, (e.g., clearing and grubbing, excavation, and grading); when construction activities temporarily or permanently cease on a portion of the site; and when stabilization practices are initiated.

Except as provided in paragraphs UNSUITABLE CONDITIONS and NO ACTIVITY FOR LESS THAN 21 DAYS below, stabilization practices shall be initiated as soon as practicable, but no more than 14 days, in any portion of the site where construction activities have temporarily or permanently ceased.

1. **Unsuitable Conditions:** Where the initiation of stabilization measures by the fourteenth day after construction activity temporarily or permanently ceases is precluded by unsuitable conditions caused by the weather, stabilization practices shall be initiated as soon as practicable after conditions become suitable.
 2. **No Activity for Less Than 21 Days:** Where construction activity will resume on a portion of the site within 21 days from when activities ceased (e.g., the total time period that construction activity is temporarily ceased is less than 21 days), then stabilization practices do not have to be initiated on that portion of the site by the fourteenth day after construction activity temporarily ceased.
- B. **Structural Practices:** Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices shall include the following devices. Location and details of installation and construction are shown on the drawings.
1. **Silt Fences:** The Contractor shall provide silt fences as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly installed to effectively retain sediment immediately after completing each phase of work where erosion would occur in the form of sheet and rill erosion (e.g. clearing and grubbing, excavation, embankment, and grading). Silt fences shall be installed in the locations indicated on the drawings. Final removal of silt fence barriers shall be upon approval by the Engineer.
 2. **Straw Bales:** The Contractor shall provide bales of straw as a temporary structural practice to minimize erosion and sediment runoff. Bales shall be properly placed to effectively retain sediment immediately after completing each phase of work (e.g., clearing and grubbing, excavation, embankment, and grading) in each independent

runoff area (e.g., after clearing and grubbing in a area between a ridge and drain, bales shall be placed as work progresses, bales shall be removed/replaced/relocated as needed for work to progress in the drainage area). Areas where straw bales are to be used are shown on the drawings. Final removal of straw bale barriers shall be upon approval by the Engineer. Rows of bales of straw shall be provided as follows:

- a. Along the downhill perimeter edge of all areas disturbed.
 - b. Along the top of the slope or top bank of drainage ditches, channels, swales, etc. that traverse disturbed areas.
 - c. Along the toe of all cut slopes and fill slopes of the construction areas.
 - d. Perpendicular to the flow in the bottom of existing drainage ditches, channels, swales, etc. that traverse disturbed areas or carry runoff from disturbed areas. Rows shall be spaced as shown on the drawings.
 - e. Perpendicular to the flow in the bottom of new drainage ditches, channels, and swales. Rows shall be spaced as shown on the drawings.
3. Floating Turbidity Barrier: The Contractor shall provide floating turbidity barriers as a temporary structural practice to minimize sediment runoff. Turbidity barriers shall be properly installed to effectively retain sediment prior to starting any work where erosion may occur and sediment discharged. Turbidity barriers shall be installed in the locations indicated on the drawings. Final removal of barriers shall be upon approval by the Engineer.

PART 2 - PRODUCTS

2.01 COMPONENTS FOR SILT FENCES

- A. Filter Fabric: The geotextile shall comply with the requirements of ASTM D 4439, and shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. The filament shall consist of a long-chain synthetic polymer composed of at least 85 percent by weight of ester, propylene, or amide, and shall contain stabilizers and/or inhibitors added to the base plastic to make the filaments resistance to deterioration due to ultraviolet and heat exposure. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of -18 to 49 degrees C (0 to 120 degrees F). The filter fabric shall meet the following requirements:

FILTER FABRIC FOR SILT SCREEN FENCE

PHYSICAL PROPERTY	TEST PROCEDURE	STRENGTH REQUIREMENT
Grab Tensile	ASTM D 4632	100 lbs. min.
Elongation (%)		30 % max.
Trapezoid Tear	ASTM D 4533	55 lbs. min.
Permittivity	ASTM D 4491	0.2 sec ⁻¹
AOS (U.S. Std Sieve)	ASTM D 4751	20-100

- B. Silt Fence Stakes and Posts: The Contractor may use either wooden stakes or steel posts for fence construction. Wooden stakes utilized for silt fence construction shall have a minimum cross section of 2 inches by 4 inches for softwoods or 2 inches by 2 inches for hardwoods, and shall have a minimum length of 3 feet. Steel posts (standard 11U11 or 11T11 section) utilized for silt fence construction, shall have a minimum mass of 1.33 pounds per linear foot and a minimum length of 3 feet.
- C. Mill Certificate or Affidavit: A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified above. The mill certificate or affidavit shall specify the actual Minimum Average Roll Values and shall identify the fabric supplied by roll identification numbers. The Contractor shall submit a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the filter fabric.
- D. Identification Storage and Handling: Filter fabric shall be identified, stored and handled in accordance with ASTM D 4873.

2.02 COMPONENTS FOR STRAW BALES

- A. The straw in the bales shall be stalks from oats, wheat, rye, barley, rice, or from grasses such as bahia, bermuda, etc., furnished in air dry condition. The bales shall have a standard cross section of 14 inches by 18 inches. All bales shall be either wire-bound or string-tied. The Contractor may use either wooden stakes or steel posts to secure the straw bales to the ground. Wooden stakes utilized for this purpose, shall have a minimum dimension of 2 inches x 1 inch in cross section and shall have a minimum length of 4 feet. Steel posts (standard 11U11 or 11T11 section) utilized for securing straw bales, shall have a minimum weight of 1.33 pounds per linear foot and a minimum length of 3 feet.

2.03 COMPONENTS FOR FLOATING TURBIDITY BARRIERS

- A. Floating Turbidity Barriers shall be either Type I or Type II, in accordance with FDOT standard specifications and details.

PART 3 - EXECUTION

3.01 INSTALLATION OF SILT FENCES

- A. Silt fences shall extend a minimum of 15 inches above the ground surface and shall not exceed 18 inches above the ground surface. Filter fabric shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together at a support post, with a minimum 6 inch overlap, and securely sealed. A trench shall be excavated approximately 4 inches wide and 8 inches deep on the upslope side of the location of the silt fence. The 4-inch by 8-inch trench shall be backfilled and the soil compacted over the filter fabric. Silt fences shall be removed upon approval by the Engineer.

3.02 INSTALLATION OF STRAW BALES

- A. Straw bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales in order to prevent deterioration of the bindings. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked and chinked (gaps filled by wedging with straw), the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side. Loose straw shall be scattered over the area immediately uphill from a straw bale barrier to increase barrier efficiency. Each bale shall be securely anchored by at least two stakes driven through the bale. The first stake or steel post in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or steel pickets shall be driven 18 inches deep into the ground to securely anchor the bales.

3.03 INSTALLATION OF FLOATING BARRIER

- A. Floating barriers shall be installed in accordance with FDOT Standard Details and manufacturer's instructions.

3.04 MAINTENANCE

- A. The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.
 - 1. Silt Fence Maintenance: Silt fences shall be inspected in accordance with paragraph INSPECTIONS, below. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be sodded.
 - 2. Straw Bale Maintenance: Straw bale barriers shall be inspected in accordance with paragraph INSPECTIONS, below. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales. Necessary repairs to barriers or replacement of bales shall be accomplished promptly. Sediment deposits shall be removed when deposits reach one-half of the height of the barrier. Bale rows used to retain sediment shall be turned uphill at each end of each row. When a straw bale barrier is no longer required, it shall be removed. The immediate area occupied by the bales and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be sodded.

3.05 INSPECTIONS

- A. General: The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and area where vehicles exit the site at least once every seven (7) calendar days and within 24 hours of the end of any storm that produces 0.5

inches or more rainfall at the site. Where sites have been finally stabilized, such inspection shall be conducted at least once every month.

- B. Inspections Details: Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the Storm Water Pollution Prevention Plan shall be observed to ensure that they are operating correctly. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.
- C. Inspection Reports: For each inspection conducted, the Contractor shall prepare a report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Storm Water Pollution Prevention Plan, maintenance performed, and actions taken. The report shall be furnished to the Engineer within 24 hours of the inspection as a part of the Contractor's daily CQC REPORT. A copy of the inspection report shall be maintained on the job site.

END OF SECTION

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SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. General product requirements
- B. Transportation and handling
- C. Storage and protection
- D. Product option requirements
- E. Substitution limitations and procedures
- F. Spare parts and maintenance materials

1.02 RELATED SECTIONS

- A. Section 01 30 00 - Administrative Requirements: Product submittals.
- B. Section 0 40 00 - Quality Requirements: Product quality monitoring.

PART 2 - PRODUCTS

2.01 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.

2.02 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named or request an equal product by an alternate manufacturer. Determination of the alternate meeting the specifications is at the discretion of the Engineer per Article 7.04 of the Standard General Conditions.

- C. Products Specified by Naming One or More Manufacturers with no or equals permitted: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

2.03 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra products of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 - EXECUTION

3.01 SUBSTITUTION PROCEDURES

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- C. A request for substitution constitutes a representation that the Bidder:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 5. Will reimburse Owner and Engineer for review or redesign services associated with re-approval by authorities in accordance with Paragraph 7.05E of the Standard General Conditions.
 - 6. Understand that the Owner may, at his sole discretion, select any substitution proposed.
- D. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

- E. Substitution Submittal Procedure:
1. Submit three copies of request for substitution on the Substitution Request Form for consideration. Limit each request to one proposed substitution. All proposed Substitutions, except in the case where products become unavailable, must be listed.
 2. Submit shop drawings, product data, certified test results, equipment technical details, performance details, and other information attesting to the proposed product equivalence as required by the Owner and/or as described in the Contract Documents.
 3. Submit data documenting the amount to be deducted from the Contract Price. The deduction must be an installed price and include any changes in Work necessary to accommodate the substitution in accordance with Paragraph 7.05A of the Standard General Conditions.
 3. The Engineer will notify Bidder in writing of decision to accept or reject request. If rejected, Bidder must use supplier/equipment identified in the Bid. If accepted, a Change Order will be issued reducing the Contract Price by the deductive amount stated on the Substitution Request Form.

3.02 TRANSPORTATION AND HANDLING

- A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- B. Transport and handle products in accordance with manufacturer's instructions.
- C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- D. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide off-site storage and protection when site does not permit on-site storage or protection.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- F. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.
- G. If requested by Engineer, provide documentation that stored materials are maintained in accordance with manufacturers' short and long-term storage procedures.

END OF SECTION

SUBSTITUTION REQUEST FORM

(During the Bidding/Negotiating Stage)

Project: _____ Substitution Request Number: _____

From: _____
To: _____ Date: _____

A/E Project Number: _____
Re: _____ Contract For: _____

Specification Title: _____

Section: _____ Page: _____
Description: _____

Article/Paragraph: _____

Proposed Substitution: _____
Manufacturer: _____ Address: _____ Phone: _____
Trade Name: _____ Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

A/E's REVIEW AND ACTION

- ☐ Substitution approved.
☐ Substitution approved as noted.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.01 RELATED SECTIONS

- A. Section 01 30 00 - Administrative Requirements: Submittals procedures.
- B. Section 01 40 00 - Quality Requirements: Testing and inspection procedures.

1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Survey work: Submit name, address, and telephone number of registered Professional Land Surveyor before starting survey work.
 - 1. On request, submit documentation verifying accuracy of survey work.
 - 2. Submit a copy of site drawing signed by the Land Surveyor, that the elevations and locations of the work are in conformance with Contract Documents.
- C. Cutting and Patching: Submit written request in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.

1.03 QUALIFICATIONS

- A. For survey work, employ a land surveyor registered in the State in which the Project is located and acceptable to Engineer. Submit evidence of Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate.

1.04 PROJECT CONDITIONS

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.05 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 - PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 60 00.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT THE WORK

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Engineer of any discrepancies discovered.
- C. Contractor shall locate and protect survey control and reference points.

- D. Control datum for survey is that indicated on Drawings.
- E. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- F. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- G. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.
- H. Utilize recognized engineering survey practices.
- I. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means.
- J. Periodically verify layouts by same means.
- K. Maintain a complete and accurate log of control and survey work as it progresses.

3.04 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

3.05 CUTTING AND PATCHING

- A. Execute cutting and patching including excavation and fill to complete the work, to uncover work in order to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
- B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing.
- C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.

- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new products in accordance with requirements of Contract Documents.

3.06 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.08 FINAL CLEANING

- A. Use cleaning materials that are non-hazardous.
- B. Clean site, sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

3.09 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
- B. Notify Engineer when work is considered ready for Substantial Completion.

- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Engineer's review.
- D. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
- E. Notify Engineer when work is considered finally complete.
- F. Record Drawings and Shop Drawings:
 - 1. Legibly mark each item to record actual construction including:
 - a. Horizontal and vertical coordinates of underground utilities and appurtenances shall be provided for all fittings, valves, and ends of casings. Coordinates shall be based on the State Plane Coordinate System NAD83, adjustment 2011, Florida West Zone, US Survey feet. Elevation data, based on NAVD88 datum, shall be provided at all fittings, valves, and ends of casings, and at 250' intervals along mains. Coordinates shall be developed at survey levels of accuracy.
 - b. Provide a Summary Table that identifies valves, casings, and key appurtenances of the project along with their horizontal and vertical coordinates.
 - c. Field changes of dimension and detail.
 - d. Details not on original Contract drawings.
 - 2. Record drawings shall be signed and sealed by a registered professional land surveyor.
- G. Complete items of work determined by Engineer's final inspection.

END OF SECTION

SECTION 31 10 00 SITE CLEARING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Remove surface debris.
- B. Remove paving, curbs, and sidewalks.
- C. Clear the surface of the site of plant life and grass.
- D. Remove root system of trees and shrubs.
- E. Dispose of removed material.

1.02 REFERENCE STANDARDS

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

1.03 REGULATORY REQUIREMENTS

- A. Burning of debris on-site is prohibited.
- B. Florida Department of Environmental Protection regulations.
- C. Contractor shall obtain any special permits needed to remove and to dispose of any debris off-site.
- D. Coordinate clearing work with utility companies.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 PREPARATION

- A. Verify that existing plant life designated to remain is tagged or identified.

3.02 PROTECTION

- A. Protect plant life, lawns, and other features remaining as a portion of final landscaping.
- B. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavation equipment and vehicular traffic.
- C. Maintain and protect above and below grade utilities which are to remain.
- D. Notify utility company(s) to remove and/or re-locate utilities, when required.
- E. Maintain designated site access for vehicle and pedestrian traffic.

3.03 CLEARING

- A. Clearing shall conform to the requirements of Section 110, SSRBC.
- B. Clear areas required for access to site and execution of Work.
- C. Remove trees and shrubs on the site that will conflict with the new facilities. Remove stumps and root systems to a minimum depth of six (6) inches.
- D. Clear undergrowth and deadwood without disturbing subsoil.
- E. Remove paving, curbs, and sidewalks.

3.04 DISPOSAL

- A. Remove debris from site. No burning on the site will be allowed.
- B. Conform to applicable Florida Department of Environmental Protection regulations for disposal of all debris.

END OF SECTION

SECTION 31 22 13 ROUGH GRADING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Removal of topsoil and subsoil
- B. Cutting, grading, filling and rough contouring the site for site structures

1.02 REFERENCE STANDARDS

- A. AASHTO T180 - Test Methods for Moisture Density Relations of Soils, Using 10-lb. Rammer and 18-inch Drop.
- B. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

1.03 PROJECT RECORD DOCUMENTS

- A. Submit under provisions of Section 01 70 00.
- B. Accurately record actual locations of utilities remaining, by horizontal dimensions, elevations or inverts, and slope gradients.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify site conditions.
- B. Verify that survey bench mark and intended elevations for the Work are as indicated.

3.02 PREPARATION

- A. Identify required lines, levels, contours and datum.
- B. Stake and flag locations of known utilities.
- C. Locate, identify, and protect utilities that remain from damage.
- D. Notify utility company(s) to remove and/or re-locate utilities, when required.
- E. Protect above and below grade utilities that remain.
- F. Protect plant life, lawns, and other features remaining as part of final landscaping.
- G. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

3.03 SUBSOIL EXCAVATION

- A. Excavate subsoil from areas to be further excavated, re-landscaped, or re-graded.
- B. Areas shall be leveled sufficiently to permit equipment traffic, cut to grade, if necessary, and then compacted using a large diameter, self-propelled or tractor drawn vibratory roller. The vibratory drum roller should have a static drum weight of eight to ten tons and should be capable of exerting a minimum impact force of 36,000 pounds.
- C. Prior to beginning compaction, soil moisture content shall be controlled to ensure adequate compaction. Provide a moisture content within two percentage points of the optimum moisture content indicated by the modified Proctor test.

- D. A minimum of eight overlapping passes shall be made by the vibratory drum roller across the stripped or cut ground surface. Compaction should continue until the minimum density of 98%, modified Proctor, is achieved.
- E. Remove excess excavated material from site.

3.04 FILLING

- A. Fill areas to contours and elevations.
- B. Place fill materials in continuous layers not exceeding one foot thick, and compact to 98% modified Proctor, Maximum Dry Density.
- C. Maintain optimum moisture content of fill materials to attain required compaction density.
- D. Make grade changes gradual. Blend slope into level areas.
- E. Remove surplus fill materials from site. Dispose of surplus material in accordance with all local, state and federal regulations.

3.05 TOLERANCES

- A. Top Surface of Subgrade: Plus or minus 0.1 feet.

3.06 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01 40 00.
- B. Compaction testing will be performed in accordance with AASHTO T180.
- C. Frequency of Tests: Per FDOT requirements.
- D. If tests indicate Work does not meet specified requirements, remove Work, replace and retest.

END OF SECTION

SECTION 31 23 16 EXCAVATION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Excavation for paving
- B. Excavation for sidewalks
- C. Excavation for site structures
- D. Removing from the site and disposing of excess excavated material

1.02 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials (AASHTO) M145 Soil Classifications.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Satisfactory soil materials are defined as those complying with AASHTO M145, soil classification Groups A-1, A-2-4, A-2-5, and A-3, with less than 35% passing sieve #200 and maximum PI of 10.
- B. Unsatisfactory soil materials are those defined in AASHTO M145 soil classification Groups A-2-6, A-2-7, A-4, A-5, A-6 and A-7; also peat and other highly organic soils.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Identify required lines, levels, contours, and datum.

3.02 EXCAVATION

- A. Excavate subsoil required to accommodate sidewalk and paving and construction operations.
- B. Excavation shall be in compliance with the safety regulations issued by the Department of Labor, Occupational Safety and Health Administration (OSHA) and with the Florida Trench Safety Act. Ensure that a "competent person", as defined by OSHA, is on-site during all construction activities.
- C. Underpin adjacent structures which may be damaged by excavation work.
- D. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- E. Hand trim excavation. Remove loose matter.
- F. Remove lumped subsoil, boulders, and rock. Remove excessively wet, yielding, soft, or hard and lumpy unsuitable materials encountered to a minimum depth of 12 inches below finish grade or invert grade.
- G. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume Work.
- H. Correct areas over-excavated in accordance with Section 31 23 23.
- I. Stockpile excavated material in designated area. Remove excess excavated material from site. Dispose of excess material in accordance with all local, state, and federal regulations.

3.03 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01 40 00.
- B. Provide for visual inspection of bearing surfaces.

3.04 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01 50 00.
- B. Protect excavation by methods required to prevent cave-in or loose soil from falling into excavation.

END OF SECTION

SECTION 31 23 23

FILL

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Filling, backfilling, and compacting for sidewalks, paved areas, and other facilities
- B. Fill for over-excavation
- C. Fill for excavation of unsuitable materials
- D. Supplying fill material as needed

1.02 REFERENCE STANDARDS

- A. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb. Rammer and 18-in. Drop.
- B. ASTM D3017 - Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.
- C. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

PART 2 - PRODUCTS

2.01 FILL MATERIALS

- A. Fill: Silica sand or local materials meeting requirements of Section 902, SSRBC.
- B. Structural Fill: Size Number 57 Coarse Aggregate, complying with Section 901, SSRBC.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Compact subgrade to density requirements for subsequent backfill materials.

- B. Cut out soft areas of subgrade not capable of in situ compaction. Backfill with fill and compact to density equal to or greater than requirements for subsequent fill material.

3.02 FILLING AND BACKFILLING

- A. Supply, transport and install fill and backfill material as needed to meet the required elevations plus or minus 1-inch.
- B. Systematically fill and backfill to allow maximum time for natural settlement. Do not fill or backfill over porous, wet or spongy subgrade surfaces.
- C. Place and compact materials in continuous layers not exceeding 12 inches compacted depth. All fill and backfill shall be installed and compacted to 98 percent of the modified Proctor, maximum dry density.
- D. Employ a placement method that does not disturb or damage other work.
- E. Maintain optimum moisture content of materials to attain required compaction density.
- F. Make gradual grade changes. Blend slope into level areas.
- G. Remove surplus materials from site.

3.03 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01 40 00.
- B. Compaction testing will be performed in accordance with AASHTO T180.
- C. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to the Owner.
- D. Proof roll compacted fill surfaces under pavers and paving.
- E. Frequency of Testing: per FDOT requirements.

3.04 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01 50 00.
- B. Reshape and re-compact fills subjected to vehicular traffic.

END OF SECTION

SECTION 31 23 33
TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Excavating trenches for municipal utilities
- B. Installing and compacting utility bedding material
- C. Compacted fill from top of utility bedding to subgrade elevations
- D. Backfilling and compaction of trenches

1.02 REFERENCE STANDARDS

- A. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb Rammer and 18-inch Drop.
- B. ASTM D3017 - Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.
- C. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

1.04 COORDINATION

- A. Coordinate Work with owner(s) of utilities.
- B. Verify Work associated with lower elevation utilities are complete before placing higher elevation utilities.

1.05 DEFINITIONS

- A. Utility: Any buried pipe, conduit, or cable.

PART 2 - PRODUCTS

2.01 FILL MATERIALS

- A. Fill: Silica sand or local materials meeting requirements of Section 902, SSRBC.

- B. Utility Bedding: Silica sand or local materials meeting requirements of Section 901, SSRBC.
- C. Structural Fill: FDOT #57 Coarse Aggregate, complying with Section 901, SSRBC.

PART 3 - EXECUTION

3.01 GENERAL

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.
- B. Field verify that existing pipelines, other utilities, and structures are as shown on the Drawings (size, horizontal location, and vertical location).
- C. Identify required lines, levels, contours, and datum.
- D. Protect plant life, lawns, and other features remaining as a portion of final landscaping.
- E. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavation equipment and vehicular traffic.
- F. Maintain and protect above and below grade utilities which are to remain.
- G. Notify utility company(s) to remove and/or re-locate utilities, when required.
- H. No pipe shall be laid when, in the opinion of the Engineer, trench conditions are unsuitable. Pipe shall be laid in a dry trench unless otherwise authorized by the Owner or Engineer.
- I. Length of open trench on existing roads may be limited by the Engineer to minimize public inconvenience or danger to life or property.

3.02 EXCAVATION

- A. Underpin adjacent structures which may be damaged by excavation work.
- B. Excavate subsoil required for utilities to design pipe, conduit, or cable invert.
- C. Excavation shall be in compliance with the safety regulations issued by the Department of Labor, Occupational Safety and Health Administration (OSHA)

and with the Florida Trench Safety Act. Ensure that a "competent person", as defined by OSHA, is on-site during all construction activities.

- D. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- E. Maintain vehicles 5 feet minimum from top of excavation slope.
- F. Dewatering shall be performed, as necessary, to maintain a ground water level two (2) feet below the pipe invert or bottom of excavation during construction.
- G. Cut trenches sufficiently wide to enable installation and to allow inspection.
- H. Hand trim excavation. Hand trim for bell and spigot pipe joints. Remove loose material.
- I. Remove lumped subsoil, boulders, and rock. Remove excessively wet, yielding, soft, or hard and lumpy unsuitable materials encountered to a minimum depth of 12 inches below finish grade or invert grade.
- J. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume Work.
- K. Correct areas over-excavated in accordance with Backfilling section 3.03.
- L. Stockpile excavated material in designated area on-site. Remove excess excavated material not being used from site. Dispose of excess material in accordance with all local, state and federal regulations.

3.03 BACKFILLING

- A. Supply, transport to the site, and install any necessary utility bedding and/or fill material.
- B. Place and compact utility bedding material in continuous layers. Each layer shall not exceed 6 inches nor shall it exceed one half of the pipe diameter. Bedding shall extend to at least 12 inches above the top of the pipe or conduit. All bedding shall be compacted to 98 percent of the modified Proctor, maximum dry density.
- C. Maintain optimum moisture content of bedding material to attain required compaction density.
- D. Employ a placement method that does not disturb or damage pipe in trench.

- E. Backfill the trench from the top of the bedding to the finished grade in lifts no greater than 12 inches. Backfill shall be compacted to 95 percent of the modified Proctor, maximum dry density. In non-paved areas and away from structures, backfill shall be compacted to 90 percent modified Proctor, maximum dry density.
- F. Remove surplus fill materials from site. Dispose of surplus material in accordance with all local, state and federal regulations.
- G. Leave fill material stockpile areas completely free of excess fill materials.

3.04 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01 40 00.
- B. Compaction testing will be performed in accordance with AASHTO T180.
- C. If tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.
- D. Frequency of tests:
 - 1. One test per installed lift under grassed or other non-paved areas at intervals not to exceed 500 feet. Initial test shall be performed in the first 100 feet of trench backfilled.
 - 2. One test per installed lift under paved areas at intervals not to exceed 200 feet. Initial test shall be performed in the first 100 feet of trench backfilled.

3.05 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01 50 00.
- B. Protect excavation by methods required to prevent cave-in or loose soil from falling into excavation.
- C. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION

SECTION 32 16 00
CURBS, GUTTERS, SIDEWALKS, AND DRIVEWAYS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Furnish and install cast-in-place concrete for curbs, gutters, sidewalks, and driveways.
- B. Control, expansion and contraction joint devices associated with concrete work.
- C. Concrete formwork.
- D. Concrete reinforcement.
- E. Miscellaneous concrete elements.
- F. Concrete curing.

1.02 RELATED SECTIONS

- A. Section 01 30 00 - Administrative Requirements
- B. Section 01 40 00 - Quality Requirements
- C. Section 01 70 00 - Execution and Close-out Requirements

1.03 REFERENCES

- A. Without limiting the generality of other requirements of these specifications, all work herein shall conform to or exceed the requirements of the Building Code and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of this Section.
 - 1. Codes and Standards
The building code, as referenced herein, shall be the Florida Building Code, (FBC) latest Edition with all current Supplements.
 - 2. Commercial Standards.
 - a. ACI 117 Standards Specifications for Tolerance for Concrete Construction and Materials
 - b. ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete.
 - c. ACI 214 Recommended Practice for Evaluation of Strength

- d. ACI 304 Test Results of Concrete.
Recommended Practice for Measuring, Mixing and Transporting and placing concrete
- e. ACI 305R Hot Weather Concreting.
- f. ACI 306R Cold Weather Concreting.
- g. ACI 308 Standard Practice for Curing Concrete
- h. ACI 309 Recommended Practice for Consolidation of Concrete
- i. ACI 315 Details and Detailing of Concrete Reinforcement.
- j. ACI 318 Building Code Requirements for Reinforced Concrete.
- k. ACI 347 Recommended Practice for Concrete Formwork.
- l. ACI 544 Fiber Reinforced Concrete
- m. ASTM A185 Standard Specifications for Steel Welded Wire reinforcement Plain For concrete

- n. ASTM A 615 Standard specifications for Deformed and Plain billet-Steel Bars for concrete reinforcement

- o. ASTM C 31 Methods of Making and Curing Concrete Test Specimens in the Field.
- p. ASTM C 33 Specification for Concrete Aggregates.
- q. ASTM C 39 Test Method for Compressive Strength of Cylindrical Concrete Specimens.
- r. ASTM C 88 Test Method for Soundness of Aggregates by use of Sodium Sulfate or Magnesium Sulfate.
- s. ASTM C 94 Specification for Ready-Mixed Concrete.
- t. ASTM C 136 Method for Sieve Analysis of Fine and Coarse Aggregate.
- u. ASTM C 143 Test Method for Slump of Portland Cement Concrete.
- v. ASTM C 150 Specification for Portland Cement.
- w. ASTM C 156 Test Method for Water Retention by concrete Curing Materials.
- x. ASTM C 157 Test Method for length Change of Hardened Cement Mortar and Concrete.
- y. ASTM C 171 Standards specifications for Sheet materials for Curing concrete.
- z. ASTM C 192 Method of Making and Curing concrete Test specimens in the Laboratory.
- aa. ASTM C 227 Standard Test Method for Potential Alkali Reactivity of Cement Aggregate Combinations (Mortar-Bar Method).

- bb. ASTM C 260 Specification for Air-Entraining Admixtures for Concrete.
- cc. ASTM C 289 Standard Test Method for Potential Reactivity of Aggregates (Chemical Method).
- dd. ASTM C 494 Specification for Chemical Admixtures For Concrete.
- ee. ASTM C 586 Standard Test Method for Potential Alkali Reactivity of Carbonate Rocks for Concrete Aggregates (Rock Cylinder Method).
- ff. ASTM C 618 Standard Specification for Fly Ash and Raw or Claimed Natural Pozzolan for use as a Mineral Admixture in Portland Cement Concrete.
- gg. ASTM D 1751 Specification for preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types).
- hh. ASTM E11 Specification for Wire-Cloth Sieves for Testing purposes.

- B. Any procedure, materials, or operation specified by reference to the American Society for Testing and Materials (ASTM), the American Concrete Institute (ACI), Building Code, or other references shall comply with the requirements of the current and most recent specifications or standards. In conflicts between listed standards and this specification, the more stringent requirements shall govern.
- C. The Contractor is expected to obtain the most recent issue of all standards, recommendations, codes, or specifications referred to within this specification.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on mix design, joint devices, attachment accessories, admixtures, reinforcement and forming accessories, waterstops, and others as requested by Engineer.
- C. Materials Certificates: Provide manufacturer's certification that products meet or exceed specified requirements. Submit Manufacturer's data on all admixtures.

1.05 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.

- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

PART 2 - PRODUCTS

2.01 FORMWORK

- A. Formwork Design and Construction: Comply with guidelines of ACI 347 to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
 - 1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance. Construct to provide continuous straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings. Provide form material with sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.
 - 2. Form Facing for Unexposed Finish Concrete: Form concrete surfaces which will be unexposed in finished structure with plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least two (2) edges and on side for tight fit.
 - 3. Earth Cuts: Do not use earth cuts as forms for vertical surfaces.
 - 4. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
 - 5. Form Ties: Cone snap type that will leave no metal within 1-1/2 inches of concrete surface.

2.02 REINFORCEMENT

- A. Steel Welded Wire Reinforcement: ASTM A 185, plain type.
 - 1. Form: Flat Sheets.
 - 2. Mesh Size and Wire Gage: As indicated on drawings.
- B. Fiber-Mesh Reinforcement: Provide 100% virgin polypropylene, fibrillated fibers containing no reprocessed olefin materials and specifically manufactured to an optimum gradation for use as concrete secondary reinforcing. Volume per cubic yard shall equal a minimum of 0.1%.

- C. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gage (1.5 mm).
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
 - 3. Provide stainless steel, galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

2.03 CONCRETE MATERIALS

- A. Cement: ASTM C 150, Class I - Normal Portland type, unless otherwise acceptable to Engineer. Acquire all cement for entire project from same source.
- B. Fine and Coarse Aggregates: ASTM C 33.
 - 1. Acquire all aggregates for entire project from same source.
 - 2. Local aggregates not complying with ASTM C33, but which have shown by special test or actual service to produce concrete of adequate strength and durability may be used when acceptable to Engineer.
- C. Lightweight Aggregate: ASTM C 330.
- D. Fly ash is not permitted in standard concrete mix.
- E. Water: Clean and not detrimental to concrete. Water shall be potable, clean and free from objectionable quantities of silty organic matter, alkali, salts and other impurities. The water shall be considered potable, for the purposes of this Section only, if it meets the requirements of the local governmental agencies. Agricultural water with high total dissolved solids (over 1000 mg/L TDS) shall not be used.

2.04 CHEMICAL ADMIXTURES

- A. Chemical admixtures may be added at the dosage rates recommended by the manufacturer and accepted by the Engineer.
- B. Chemical Admixture Manufacturers:
 - 1. Master Builders.
 - 2. Sika Chemical Company.
 - 3. Substitutions: See Section 01 60 00 - Product Requirements.
- C. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.

- D. Air Entrainment Admixture: ASTM C 260.
- E. High Range Water Reducing and Retarding Admixture: ASTM C 494, Type F or G.
 - 1. Acceptable Products:
 - a. Eucon Super 37.
 - b. LA-8.
 - c. Sikament.
- F. High Range Water Reducing Admixture: ASTM C 494, Type F.
- G. Water Reducing and Accelerating Admixture: ASTM C 494, Type E.
- H. Water Reducing and Retarding Admixture: ASTM C 494, Type D.
 - 1. Acceptable Products:
 - a. Eucon Retarder 75.
 - b. Pozzolith 300-R.
 - c. Plastiment.
 - d. Substitutions: See Section 01 60 00 - Product Requirements.
- I. Water Reducing Admixture: ASTM C 49, Type A.
 - 1. Acceptable Products:
 - a. Eucon WR-75.
 - b. Pozzolith 322N.
 - c. Plastocrete 160.
- J. Shrinkage Reducing Admixture:
 - 1. Available Products: Subject to compliance with requirements, products which may be incorporated in the work include, but are not limited to, the following:
 - a. "Eclipse"; W. R. Grace Construction Products
 - b. "Tetraguard AS20"; Master Builders Technologies (BASF)
 - c. Or equal.
- K. Calcium chloride, thiocyanate or admixtures containing more than 0.05 percent chloride ions are not permitted.

2.05 ACCESSORY MATERIALS

- A. Chemical Hardener: Fluosilicate solution designed for densification of cured concrete slabs.

- B. Moisture-Retaining Cover: ASTM C 171; regular curing paper, white curing paper, clear polyethylene, white polyethylene, or white burlap-polyethylene sheet.
- C. Liquid Curing Compound: ASTM C 309, Type 1, clear or translucent.
 - 1. Acceptable Products:
 - a. Ecocure.
 - b. Masterseal.
 - c. Substitutions: See Section 01 60 00 - Product Requirements.

2.06 BONDING AND JOINTING PRODUCTS

- A. Joint Filler: Nonextruding, resilient asphalt impregnated fiberboard or felt, complying with ASTM D 1751, 1/2 inch thick and 4 inches deep; tongue and groove profile.

2.07 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience, as specified in ACI 301.
- C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.

- D. Design mixes to provide normal weight concrete with the following properties, as indicated on drawings and schedules:

1. FDOT Class I Concrete - Normal Weight Concrete (3000 Psi At 28 days) Use for curbs, gutters, sidewalks, and driveways

Minimum cementitious materials content, per cubic yard	508 lbs.
Maximum water-cementitious materials ratio, by weight	0.50
Slump, maximum	3-inches (5-inches for curb & gutters)
Compressive strength lbs. per sq. inch at 28 days -F'c	3,000
Coarse Aggregates	#57 per ASTM C33
Total Air (ASTM C173)	3 to 5 % for maximum 2 inch aggregate 3 to 7% for maximum 3/4 inch aggregate 6 to 8 % for maximum 1/2 inch aggregate

2.08 MIXING

- A. On Project Site: Mix in drum type batch mixer, complying with ASTM C 685. Mix each batch not less than 1-1/2 minutes and not more than 5 minutes.
- B. Transit Mixers: Comply with ASTM C 94/C 94M.
1. When air temperature is between 85° F (30° C) and 90° F (32° C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes.
 2. When air temperature is above 90° F (32° C), reducing mixing and delivery time to 60 minutes.
- C. Delivery tickets shall indicate the cement content, the water to cement ratio, and mix-design number.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- B. Verify that forms are clean before applying release agent.
- C. Design formwork to be readily removable without impact, shock or damage to cast-in-place concrete surfaces and adjacent materials.
- D. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like, to prevent swelling and for easy removal.
- E. Chamfer exposed corners and edges, using wood, metal, PVC or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints unless otherwise noted.
- F. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed. Retighten forms and bracing after concrete placement as required to eliminate mortar leaks and maintain proper alignment.

3.03 INSTALLING REINFORCEMENT

- A. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Lap adjoining pieces at least one full mesh. Splice laps with tie wire.

3.04 JOINTS

- A. Construction Joints: Locate and install construction joints, as shown on drawings or as required, so as not to impair strength and appearance of the structure, as approved by Engineer.
- B. Place construction joints perpendicular to the main reinforcement. Continue reinforcement across construction joints.

- C. Contraction (Control) Joints in Slabs-on-Ground: Construct contraction joints in slabs-on-ground to form panels of patterns as required. Use inserts 1/4 inch wide x 1/4 of slab depth, unless otherwise indicated. Seal all joints. Contractor to submit suggested locations to Engineer for approval.

3.05 INSTALLATION OF EMBEDDED ITEMS

- A. General: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of items to be attached thereto.

3.06 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Notify Engineer not less than 24 hours prior to commencement of placement operations.
- C. Ensure reinforcement, inserts, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- D. Separate slabs on grade from vertical surfaces with joint filler.
- E. Install joint devices in accordance with manufacturer's instructions.
- F. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- G. Place concrete continuously between predetermined expansion, control, and construction joints.
- H. Do not interrupt successive placement; do not permit cold joints to occur.
- I. Saw cut joints within 24 hours after placing. Use 3/16 inch thick blade, cut into 1/4 depth of slab thickness.
- J. Screed concrete on grade level, using wood or metal screed, maintaining surface flatness of maximum 1/4 inch in 10 ft
- K. Hot-Weather Placing: When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.

1. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90° F (32° C). Mixing water may be chilled, or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing.
 2. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.
 3. Wet forms thoroughly before placing concrete.
 4. Use water-reducing retarding admixture (Type D) when required by high temperatures, low humidity, or other adverse placing conditions.
- L. Remove all grade stakes and other wood from within concrete and fill holes.

3.07 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Finish to requirements of ACI 302.1R, and as follows:
1. Non-Slip Broom Finish shall be applied to all sidewalks and driveways, and elsewhere as indicated.
 2. Brush finish shall be applied to all curbs and gutters.

3.08 CURING AND PROTECTION

- A. Comply with requirements of ACI 308. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Formed Surfaces: Cure by moist curing with forms in place for full curing period.
- D. Surfaces Not in Contact with Forms:
1. Start initial curing as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than seven days by water-fog spray or saturated burlap.
 2. Begin final curing after initial curing but before surface is dry. Continue final curing for at least seven days in accordance with ACI 301 procedures. Avoid rapid drying at end of final curing period.

- E. Provide curing compound as follows:
 - 1. Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours). Apply uniformly in continuous operation by power-spray or roller in accordance with manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period. Apply second coat of curing/sealing compound to exposed interior slabs at completion of job.
- F. Curing Formed Surfaces: Cure formed concrete surfaces by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.

3.09 REMOVAL OF FORMS

- A. Formwork not supporting weight of concrete may be removed after cumulatively curing at not less than 50° F (10° C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained.

3.10 RE-USE OF FORMS

- A. Clean and repair surfaces of forms to be re-used in work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces.
- B. The Engineer shall inspect all forms to be re-used in the work. Any forms that in the opinion of the Engineer are damaged or otherwise unacceptable for use, shall not be used in the work and shall be removed from the project site.
- C. Forms that are acceptable for re-use shall have a new form coating compound applied as specified for new formwork.

3.11 FIELD QUALITY CONTROL

- A. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to Engineer.

- B. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00.
- C. Concrete delivered to the site that is determined by Engineer to be unacceptable shall be removed from the site and shall not be incorporated into the Work. Reasons for rejecting a load of concrete include, but are not limited to, excessive slump, a high concrete temperature, or other indications that the concrete has begun curing.
- D. Provide free access to concrete operations at project site and cooperate with appointed firm.
- E. Submit proposed mix design for each class of concrete for review prior to commencement of Work
- F. Sampling and testing for quality control during placement of concrete may include the following, as directed by Engineer.
 - 1. Sampling Fresh Concrete: ASTM C 172, except modified for slump to comply with ASTM C 94.
 - 2. Slump: ASTM C 143; one test for each set of compressive strength test specimens.
 - 3. Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231 pressure for normal weight concrete; one for each set of compressive strength test specimens.
 - 4. Concrete Temperature: Test hourly when air temperature is 40° F (4° C) and below, and when 80° F (27° C) and above; and each time a set of compression test specimens made.
 - 5. Compression Test Specimen: ASTM C 31; one set of 4 standard cylinders for each compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory cured test specimens except when field-cure test specimens are required.
 - 6. Compressive Strength Tests: ASTM C 39; one set for each 100 cubic yards or fraction thereof, of each concrete class placed in any one day or for each 5,000 sq. ft. of surface area placed; 1 specimen tested at 7 days, 2 specimens tested at 28 days, and 1 specimen retained in reserve for later testing if required.
 - 7. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C 143/C 143M.
 - 8. When total quantity of a given class of concrete is less than 50 cubic yards, strength test may be waived by Engineer if, in their judgment, adequate evidence of satisfactory strength is provided.
 - 9. When strength of field-cured cylinders is less than 85% of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.

10. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength, and no individual strength test result falls below specified compressive strength by more than 500 psi.

G. Shrinkage Tests

1. Drying shrinkage tests will be made for the trial batch specified in the Paragraph in Part 2 entitled "Trial Batch and Laboratory Tests," the first placement of each class of concrete, and during construction to insure continued compliance with these Specifications.
2. Drying shrinkage specimens shall be 4-inch by 4-inch by 11-inch prisms with an effective gage length of 10 inches, fabricated, cured, dried and measured in accordance with ASTM C 157 modified as follows: specimens shall be removed from molds at an age of 23 ± 1 Hours after trial batching, shall be placed immediately in water at 70 ± 3 °F for at least 30 minutes, and shall be measured within 30 minutes thereafter to determine original length and then submerged in saturated lime water at 73 ± 3 °F. Measurement to determine expansion expressed as a percentage of original length shall be made at age 7 days. This length at age 7 days shall be the base length for drying shrinkage calculations ("0" days drying age). Specimens then shall be stored immediately in a humidity control room maintained at 73 ± 3 °F and 50 percent ± 4 percent relative humidity for the remainder of the test. Measurements to determine shrinkage of base length shall be made and reported separately for 7, 14, 21, and 28 days of drying after 7 days of moist curing.
3. The drying shrinkage deformation of each specimen shall be computed as the difference between the base length (at "0" days drying age) and the length after drying at each test age. The average drying shrinkage deformation of the specimens shall be computed to the nearest 0.0001 inch at each test age. If the drying shrinkage of any specimen departs from the average of that test age by more than 0.0004-inch, the results obtained from that specimen shall be disregarded. Results of the shrinkage test shall be reported to the nearest 0.001 percent of shrinkage. Compression test specimens shall be taken in each case from the same concrete used for preparing drying shrinkage specimens. These tests shall be considered a part of the normal compression tests for the project. Allowable shrinkage limitations shall be as specified in Part 2, herein.

- G. Additional Tests: The testing service will make additional tests of in- place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by Engineer. Testing service may conduct tests to determine adequacy of concrete by cored

cylinders complying with ASTM C 42 or by other methods as directed. Contractor shall pay for such tests conducted, and any other additional testing as may be required, when unacceptable concrete is verified.

3.12 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Engineer and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Engineer. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Patching Defective Areas:
 - 1. Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to Engineer.
 - 2. Cut out honeycomb, rock pockets, voids over 1/4 inches in any dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1-inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water and brush-coat the area to be patched with specified bonding agent. Place patching mortar after bonding compound has dried.
 - 3. For exposed-to-view surfaces, blend white Portland cement and standard Portland cement so that, when dry, patching mortar will match color surrounding. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.
- E. Repair of Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Engineer. Surface defects as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on surface; and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes, fill with dry pack mortar, or precast cement cone plugs secured in place with bonding agent.
 - 1. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

- F. Repair of Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness, using a template having required slope.
1. Repair finished unformed surfaces that contain defects which affect durability of concrete. Surface defects, as such, include crazing, cracks in excess of 0.01 inches wide or which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, pop-outs, honeycomb, rock pockets, and other objectionable conditions.
 2. Correct high areas in unformed surfaces by grinding, after concrete has cured at least 14 days.
 3. Correct low areas in unformed surfaces during, or immediately after completion of surface finishing operations by cutting out low areas and replacing with fresh concrete. Finish repaired areas to blend into adjacent concrete. Proprietary patching compounds may be used when acceptable to Engineer.
- G. Repair defective areas, except random cracks and single holes not exceeding 1 inch diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean, square cuts and expose reinforcing steel with at least 3/4 inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
- H. Repair isolated random cracks and single holes not over 1 inch in diameter by dry-pack method. Groove top of cracks and cut-out holes to sound concrete and clean of dust, dirt and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Mix dry-pack, consisting of one part portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing. Place dry pack after bonding compound has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for not less than 72 hours.
- I. Use epoxy-based mortar for structural repairs, where directed by Engineer.

- J. Repair methods not specified above may be used, subject to acceptance of Engineer.
- K. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.

END OF SECTION

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SECTION 32 92 19 SEEDING AND MULCHING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Seeding
- B. Mulching
- C. Fertilizing
- D. Watering

1.02 REFERENCE STANDARDS

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

1.03 REGULATORY REQUIREMENTS

- A. All seed shall meet the requirements of the State Department of Agriculture and Consumer Services and all applicable State laws.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver grass seed in original containers showing analysis of seed mixture, percentage of pure seed, year of production, net weight, date of packaging and location of packaging. Damaged packages are not acceptable.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis and name of manufacturer.

PART 2 - PRODUCTS

2.01 SEED

- A. Where seeding is called for on the Drawings or in these Specifications it shall mean a permanent type grass seed. Unless called for otherwise on the Drawings, the seed shall be a mixture of 20 parts of bermuda seed and 80 parts of Pensacola bahia seed.

1. The bermuda seed shall be an equal mixture of hulled and unhulled seed.
 2. The Pensacola bahia seed shall be scarified seed, having a minimum active germination of 40 percent and total germination of 85 percent
- B. Quick growing type grass seed shall be a species which will provide an early ground cover during the winter season and will not compete with the permanent grass. The separate types of seed used shall be thoroughly dry-mixed immediately before sowing. Seed that has become wet shall not be used.

2.02 MULCH

- A. Dry Mulch: The mulch material used shall normally be dry mulch. Dry mulch shall be straw or hay consisting of oat, rye, or wheat straw, or of pangola, peanut, coastal bermuda or bahia grass hay. Only undetermined mulch which can readily be cut into the soil shall be used.
- B. Green Mulch:
1. Types allowed: Green mulch shall consist of live coastal bermuda, other approved type of grass, and shall be free from weeds and obnoxious or other undesirable grasses.
 2. Conditions Under which Green Mulch will be Permitted: No green mulch which, in the Engineer's opinion, has been allowed to become sufficiently dry as to lose its growth-producing benefits will be allowed to be used.
 3. In the event that the subsequent stand of grass is found to be contaminated with weeds or other obnoxious or undesirable growth, and it can be determined that such growth was introduced with the green mulch, then the Contractor will be required to effectively eliminate such undesirable growth, at his own expense.
- C. Manufactured Mulch (Other than Wood Cellulose Fiber Mulch): When specified or permitted by the Engineer, manufactured mulches may be allowed. Such mulches may consist of jute, cotton, or other fiber materials, plastic sheeting, netting, chemical adhesive soil stabilizers, or other approved coverings. When so permitted, the particular type to be used shall be approved by the Engineer.

2.03 FERTILIZER

- A. Fertilizer shall conform to the requirements of Section 982 SSRBC.
- B. The chemical designation of the fertilizer shall be 12-8-8 (12% - total nitrogen, 8% - available phosphoric acid, and 8% - water-soluble potash).

- C. Each bag or container shall have a quantitative analysis card.

2.04 DOLOMITIC LIMESTONE

- A. Dolomitic limestone shall be an approved product, designated for agricultural use.

2.05 WATER

- A. The water used in the grassing operations may be obtained from any approved spring, pond, lake, stream or municipal water system.
- B. The water shall be free of excess and harmful chemicals, acids, alkalis, or any substance which might be harmful to plant growth or obnoxious to traffic.

2.06 EQUIPMENT

- A. Fertilizer Spreader: The devices for spreading fertilizer and dolomitic limestone shall be capable of uniformly distributing the material at the required rate.
- B. Seed Spreader: The seed spreader shall be an approved mechanical hand spreader or other approved type of spreader.
- C. Equipment for Cutting Mulch into Soil: The mulching equipment shall be of a type capable of cutting the specified material uniformly into the soil and to the required depth. Harrows will not be allowed.
- D. Rollers: A cultipacker, traffic roller, or other suitable equipment will be required for rolling the grassed areas.

PART 3 - EXECUTION

3.01 GENERAL

- A. Seed and mulch all areas disturbed during construction except for those areas designated to be sodded.
- B. Fertilizing, seeding, or mulching operations will not be permitted when wind velocities exceed 15 miles per hour.
- C. Seed shall be sown only when the soil is moist and in proper condition to induce growth. No seeding shall be done when the ground is frozen, unduly wet or otherwise not in a tillable condition.

- D. Whenever a suitable area has been graded, it shall be made ready, when directed by the Engineer, and grassed in accordance with these specifications. Grassing shall be incorporated into the project at the earliest practical time in the life of the contract.

3.02 SEQUENCE

- A. The several operations involved in the work shall proceed in the following sequence:
 - 1. Preparation of the Ground.
 - 2. Fertilizing (and/or application of limestone).
 - 3. Seeding.
 - 4. Mulching and rolling.

3.03 PREPARATION OF THE GROUND

- A. The ground to be seeded shall be prepared by disk-harrowing and thoroughly pulverizing the soil to a suitable depth. The prepared soil shall be loose and reasonably smooth. It shall be reasonably free of large clods, roots, and other material which will interfere with the work or subsequent mowing and maintenance operations. No subsequent operations shall be commenced until the Engineer has approved the condition of the prepared areas.

3.04 FERTILIZING

- A. The fertilizer shall be spread uniformly in an initial application of 400 to 500 pounds per acre. A second application of 400 to 500 pounds per acre shall be applied within 90 calendar days.
- B. Immediately after the fertilizer is spread, it shall be mixed to a depth of four (4) inches or two (2) inches on steep slopes.

3.05 SEEDING

- A. While the soil is still loose and moist, the seed shall be scattered uniformly over the grassing area. Unless shown otherwise on the Drawings, the permanent type seed mixture shall be spread at a rate of 100 pounds per acre.
- B. When so directed by the Engineer, seed of an approved quick-growing species of grass, such as rye, Italian rye, millet, or other cereal grass, shall be spread in conjunction with the permanent type seed mixture. The type of quick-growing seed used shall be appropriate to provide an early ground cover during the particular season when planting is done. The rate of spread shall be 30 pounds per acre.

3.06 MULCHING

- A. Approximately two inches, loose thickness, of the mulch material shall be uniformly applied over the seeded area.
- B. The mulch material shall be cut into the soil with the equipment specified, so as to produce a loose mulched thickness of three to four inches. Care shall be exercised that the materials are not cut too deeply into the soil. When green mulch is used, the green mulch shall be incorporated into the soil not later than two days after being cut, and no artificial watering of the mulch shall be done before it is applied.
- C. Immediately after completion of the seeding, the entire area shall be rolled thoroughly with the equipment specified. At least two trips over the entire area will be required.

3.07 WATERING

- A. The areas on which the seed is to be placed shall contain sufficient moisture for optimum results after being placed.
- B. The seeded area shall be kept in a moist condition for no less than two (2) weeks. The moistened condition shall extend at least to the full depth of the rooting zone. Water shall not be applied, however, when there is danger of a freezing condition.

END OF SECTION

SECTION 32 92 23 SODDING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Sod
- B. Preparation of Ground
- C. Placement of Sod and Fertilization
- D. Maintenance of Sod

1.02 REFERENCE STANDARDS

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

PART 2 - PRODUCTS

2.01 SOD

- A. Sod shall be Argentine Bahia as shown on the plans. Obtain sod from areas having growing conditions similar to areas to be covered. Sod shall have a clean growth of acceptable grass, reasonably free of weeds, with not less than 1 1/211 of soil firmly adhering to roots. Cutting shall be rectangular strips, of equal width, and a size to permit being lifted and rolled without breaking. All broken sod pads, irregularly shaped pieces, torn or uneven ends will be rejected. Sod installation shall be done within 48 hours after the time of harvesting.
- B. Sod shall be planted as soon as possible after being dug and shall be shaded and kept moist from the time it is dug until it is planted.

2.02 FERTILIZER

- A. For lawns, provide fertilizer with 16-4-8 formulation. Fertilize at a rate of 12 pounds per 1,000 S.F. Fertilizer shall be delivered to the site in the original containers and bear the manufacturer's guarantee.
- B. Each bag or container shall have a quantitative analysis card.

PART 3 - EXECUTION

3.01 PREPARATION OF GROUND

- A. Loosen sub grade of lawn areas to a minimum depth of 4 inches. Remove stones over 1 1/2" in any dimension. Remove sticks, roots, rubbish, and other extraneous matter. Limit preparation to areas, which will be planted promptly after preparation.
- B. Spread soil to minimum depth required meeting lines, grades, and elevations shown, after light rolling and natural settlement.
- C. Preparation of Grade: Where lawns are to be planted, prepare soil for lawn planting as follows: Till to a depth of not less than 4". Remove high areas and fill in depressions. Till soil to homogenous mixture of fine texture, free of lumps, clods, stones, roots and other extraneous matter. Owner's representative shall approve preparation of grades before lawns are installed.
- D. Prior to grade preparation of unchanged areas, remove existing grass and other vegetation. Dispose of such material outside of Owner's property. Do not turn existing vegetation over into soil being prepared for lawns. Allow for sod thickness in areas to be sodded.
- E. Apply specified fertilizer at rates indicated above and thoroughly mix into upper 2" of existing soil. Delay application of fertilizer if lawn planting will not follow within a few days. Landscape Architect must observe fertilizer application, approve application rates, and issue field report.
- F. Fine grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Roll, rake, and drag soil, remove ridges and fill depressions, as required to meet finish grades. Limit fine grading to areas, which can be planted immediately after grading.

3.02 PLACING SOD

- A. Sodding shall be incorporated into the project at the earliest practical time in the life of the contract.
- B. No sod which has been cut for more than 72 hours shall be used. Any sod which is not planted within 24 hours after cutting shall be stacked in an approved manner and maintained properly moistened.

- C. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips; do not overlap. Stagger strips to offset joints in adjacent courses. Avoid damage to sod during installation. Tamp or roll to ensure contact with sub grade, eliminate air pockets, and form a smooth surface. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass.
- D. On areas where the sod may slide, the sod shall be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals.
- E. Any pieces of sod which, after placing, shows an appearance of extreme dryness shall be removed from the work.

3.3 MAINTENANCE

- A. Maintain sodded lawns for thirty days, after substantial completion.
- B. Maintain lawns by watering, fertilizing, weeding, mowing, edging, and any other required operation. Roll, re-grade, and replant bare or eroded areas to produce a uniformly smooth lawn. Mow as frequently as required to remove no more than 30% of the grass height in one mowing. Do not mow when grass is wet.

3.04 WATERING

- A. The areas on which the sod is to be placed shall contain sufficient moisture for optimum results after being placed.
- B. Water sod thoroughly with a fine spray immediately after planting. During the sod establishment period, set irrigation to water daily or as frequently as necessary to maintain moist soil to a minimum depth of 1 1/2" below the sod.

END OF SECTION

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SECTION 33 05 23.13
HORIZONTAL DIRECTIONAL DRILLING (HDD)

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work specified in this Section consists of furnishing and installing underground utilities using the Horizontal Directional Drilling (HDD) installation method, also commonly referred to as a Directional Bore. This work shall include all services, equipment, materials, and labor for the complete and proper installation, testing, and restoration of underground utilities.

1.02 QUALITY ASSURANCE

- A. The requirements set forth in this Specification specify a wide range of procedural precautions necessary to insure that the very basic, essential aspects of a proper Directional Bore installation are adequately controlled. Strict adherence shall be required under specifically covered conditions outlined in this Specification.
- B. Adherence to the specifications contained herein, or the Engineer's approval of any aspect of any Directional Bore operation covered by this Specification, shall in no way relieve the Contractor of their ultimate responsibility for the satisfactory completion of the work authorized under the Contract.

1.03 SUBMITTALS

- A. Prior to beginning work, the Contractor must submit to the Engineer a report of procedure and subsurface soil conditions as they exist along the path of the proposed crossing. The report will insure that the subsurface conditions are known to the Contractor and that his proposed crossing procedure is based on factual information. If the subsurface conditions are known to the Contractor by previous work done in the immediate area, the information can be recorded in the report with no physical testing required. The report shall include the following:
 - 1. The general classification of soils along the path of the proposed crossing; along with method of obtaining this information.
 - 2. A list of equipment expected to be used for the Directional Bore, including special equipment and materials required for various soil conditions.
 - 3. Time schedule for completing each Directional Bore, including any delays due to particular soil conditions.

1.04 JOB CONDITIONS

- A. Planned nighttime work is expressly prohibited and will not be allowed unless stipulated in the special conditions of the Contract.
- B. All crossing operations shall be accomplished during daylight hours and shall not begin after the hour pre established as the latest starting time that will allow completion during daylight hours.

1.05 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall supply all labor, supervision, tools and equipment, and materials necessary to install carrier pipe by directional bore method for wastewater systems. Installation of the carrier pipe system includes the installation of wastewater force mains and/or any other devices or materials deemed necessary for the respective systems.
- B. The Contractor shall provide experienced operators to perform directional boring. The operator shall have performed at least three directional bores of similar pipe diameter and bore length.
- C. The Contractor shall be fully responsible for placement of the pipe per the specifications.
- D. The Contractor shall supply experienced persons who have received proper training in the use of the fusion equipment according to the recommendations of the pipe manufacturer and fusion equipment supplier to perform thermal fusion of the specific HDPE or FPVC pipe to be used.

PART 2 - PRODUCTS

2.01 EQUIPMENT

- A. The directional drilling equipment shall consist of a directional-drilling rig of sufficient capacity to perform the bore and pull back the pipe.
- B. The steerable, directional-boring equipment shall produce a stable fluid lined tunnel with a minimum burial depth of 36-inches for the carrier pipe installation.
- C. The tunneling equipment shall employ a fluid cutting technique. The soil shall be cut by small diameter, high-pressure jets of drilling fluid. The jets shall cut the soil in advance of the boring tool, impregnating and lining the tunnel wall with drilling fluid. The drilling fluid shall be inert and pose no environmental risk,

such as bentonite or a polymer-surfactant mixture producing a slurry of proper consistency.

- D. The hydraulic power system shall be self-contained and free of leaks, with sufficient pressure and volume to power the drilling operation.
- E. Calibration of the electronic detection system shall be verified by uncovering the tool (head) at the first ten (10) foot point.
- F. The boring tool (head) shall be remotely steerable by means of an electronic detection system. The tool (head) location shall be monitored in three dimensions and logged every 10 feet from the drilling rig. The boring tool shall pull the carrier pipe through the fluid lined tunnel.
- G. The rig shall have means to monitor and record the maximum pullback force during the pullback operation. The pulling strength of the boring equipment shall not exceed the pipe safety pull strength as per the manufacturer's recommendation.
- H. The butt fusion machine used to join sections of HDPE pipe shall have controls and gauges for setting pressures and temperatures used for facing, heating, and fusing.
 - 1. Facing should be conducted at a pressure that produces properly faced pipe ends.
 - 2. Heating pressure should be set so that the pipe ends maintain contact against the heater, but are not forced against the heater (zero contact pressure).
 - 3. Fusing pressure shall be as recommended by the pipe manufacturer and fusion equipment supplier.
 - 4. Heater surfaces must be clean and free of contaminants such as dirt, oil, grease, and melted or charred plastic. To clean the heater, only wooden implements and clean, dry, lint-free non-synthetic cloths should be used.
 - 5. The heater should be checked periodically for uniform surface temperature using a surface pyrometer.

2.02 DIRECTIONAL BORE PIPE

- A. Pipe shall be High Density Polyethylene (HDPE) as per AWWA C906.
- B. Carrier: HDPE pipe, as specified.
- C. Color Coding: The piping shall be permanently coded to provide service identification. Stripes along the entire outside length of the pipe, 120 degrees apart, shall be made by co-extrusion or impregnation in accordance with the

following schedule. Fully colored pipe co-extruded from permanently pigmented material is also acceptable.

<u>SERVICE</u>	<u>STRIPED PIPE</u>	<u>SOLID-COLORED PIPE</u>
Water	Blue stripes	Blue

- D. Markings on the pipe shall include the following:
1. Nominal size and OD base.
 2. Standard material code designation.
 3. Dimension.
 4. Pressure class.
 5. AWWA designation.
 6. Material test category of pipe.

2.03 DRILLING FLUID ("MUD")

- A. All drilling fluid must be homogenous in nature.
- B. All drilling fluid must have a pH of 8.5 to 10.0.
- C. "Mud" viscosity must meet minimum viscosity as set by the manufacturer for soil conditions expected to be encountered.
- D. Contractor shall have appropriate additives for drilling fluid available for different soil conditions (clay, sand, silt, etc.) that may be encountered.

2.04 TRACER WIRE

- A. All piping shall be installed with two continuous, insulated, solid #8 gauge (or larger) solid copper wire for force main location purposes by means of an electronic line tracer.
- B. The wire insulation shall be solid color in accordance with the coding described in 2.02.C above. Blue coated for water (green coated for wastewater), 2 (two) - #8 gauge UF (Underground Feeder per National Electric Code Article 339) solid tracer wire must be taped along all pipes. The tracer wire shall be routed to the nearest access point (valve box). Sections of wire shall be spliced together using Buchanan connectors or similar approved method for splicing. Twisting the wires together is not acceptable (wire nuts).
- C. Upon completion of the directional bore, the Contractor shall demonstrate to the Engineer that the wire is continuous and unbroken through the entire run of the pipe by providing full signal conductivity (including splices) when energizing for

the entire run in the presence of the Engineer. If the wire is broken, the Contractor shall repair or replace it.

2.05 FITTINGS, RESTRAINERS, AND VALVES

- A. Pipe flange joints shall be made using a flange adapter which is butt fused to the HDPE pipe, if used.
 - 1. A back-up ring shall be fitted behind the flange adapter sealing surface flange for bolting to the mating flange. Standard back-up rings shall be AWWA C207 Class D for 160 psi and lower pressure ratings.
 - 2. One edge of the back-up ring must be chamfered to fit up against the back of the sealing surface flange.
- B. Mechanical joints to polyethylene pipe shall be fully constrained by compressing the pipe OD against a rigid tube or stiffener in the pipe bore.
 - 1. The stiffener shall be stainless steel.
 - 2. Approved joint restraining devices are Mega-Lug and Mechanical Joint Restrainer (MJR).

PART 3 -EXECUTION

3.01 GENERAL

- A. All directional bore operations shall be contained within right-of-way and/or easements shown on the Drawings.
- B. Work shall not start until the Contractor has all necessary permits from the appropriate governing regulatory agencies, and not until the Engineer has been given two (2) working days prior notification to inspect construction materials. Any material may be rejected if out of specification or damaged (i.e. out-of-round, deep cuts, etc.).
- C. Contractor shall not begin drilling operation until the Engineer is present. The Engineer must be present during the entire boring operation once the ground is penetrated.

The Contractor is to schedule the directional bore such that the Engineer is on site and that the bore is completed before 4:00 PM. Directional bores shall not start after 1:00 PM or subject to permit conditions unless approved by the Owner and Engineer.

3.02 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall provide the following materials and services for directional bore unless otherwise specified by Owner:
1. Traffic control.
 2. Tracer wire for carrier pipe (#4 gauge or larger, solid), per standards.
 3. Site preparation and excavation.
 4. Dewatering - Groundwater Pump or Well Point System as needed.
 5. Sheet piling and shoring, as necessary.
 6. All fusion welding.
 7. Preliminary site restoration (fill open pits, grading).
 8. Site clean up including removal and proper disposal of all waste materials and drilling fluid.
 9. Must have a vacuum truck on job site for proper clean up of drilling fluid. This will be required as the conditions warrant or at the direction of the Owner.
 10. All fittings, couplings, and carrier pipe (unless otherwise specified).
 11. Final site restoration (sod, seed, mulch, concrete/asphalt repair).
 12. Required Right-Of-Way Permits.
- B. The Contractor shall record data on the bore log (see attached) and shall also ensure the following items are monitored and controlled:
1. Calibrate locator/tracking system
 2. Field verify calibration by field measurement of actual location of first rod
 3. Ensure that the flow of bentonite is continuous
 4. Ensure pulling pressure does not exceed pipe manufacturer's specifications
 5. Fusing of pipe is within pipe manufacturer's specifications
 6. Cool down time is calculated and complied with
 7. Pipe is fused prior to start of extended bores (ie. Greater than 100 linear feet).
- C. The Contractor shall record location and depth measurements every ten (10) feet over the course of the bore and provide that data to the Owner. Data collected by the Engineer does not relieve the Contractor from the responsibility of recording his own data. The Contractor shall log all necessary data from the locator/tracking system:
1. Position.
 2. Roll Angle.
 3. Tilt Angle.
 4. Depth - Every ten (10) feet.
 5. Temperature of Data Transmitter.
 6. Remaining Battery Life.
 7. Pull Back Force (Maximum pull back force shall be recorded).
 8. Drilling Fluid Pressure

- D. The Engineer shall witness and verify the Contractor's logging of pertinent data. The Engineer may log his own data for the Owner's use.
- E. Contractor shall notify all involved agencies prior to start of construction. The Contractor is responsible for verifying that all permits are current and not expired. The Contractor shall notify the Engineer of Record and the Owner if expired.
- F. The Contractor shall call "Sunshine State One-Call" (phone number: 800-432-4770) two (2) full days prior to performing any excavation. The Contractor shall confirm the location of utilities before starting the directional bore. This shall be done by hand digging within the tolerance zone of marked utilities.
- G. The Contractor shall perform directional bore in accordance with the approved project Drawings. In no case shall the bore extend into private property unless an easement is provided prior to start of construction. Tolerances shall be as specified in Section 3.03. These tolerances shall be met unless required separations for other utilities must be met and puts the bore in conflict. Failure to meet tolerances, if not pre-approved by Engineer, may be grounds for rejecting the bore. The Contractor may, at the discretion of the Engineer, be required to abandon the bore and re-drill a new one at Contractor's own expense.
- H. The Contractor shall provide all structures, safety equipment, and professional services required for the health and safety of the general public and of personnel involved in directional boring work in accordance with the requirements of the Federal, State, and Local Authorities. This includes proof of construction personnel certificates of trench safety training at the time of construction.
- I. The Contractor shall take all measures necessary to protect surrounding public and private property, adjacent buildings, roads, drives, sidewalks, drains, sewers, utilities, trees, structures, and appurtenances from damage due to directional bore work.
- J. The Contractor shall exercise due care at all times and shall not apply more than the safe pull force to the carrier pipe recommended by the Engineer.
- K. The Contractor will be responsible to provide a tracer wire that tests positive for continuity the entire length of the bore prior to acceptance by the Engineer.
- L. The Contractor shall be fully responsible for all steerable, fluid lined directional boring operation. Any noticeable surface defects resulting from operation of this boring equipment shall be repaired by the Contractor at his expense. The Contractor is recommended to take preconstruction videos of the construction site to avoid unwarranted claims for damages resulting from the construction.

3.03 DRILLING REQUIREMENTS

- A. The horizontal alignment shall be as shown on the drawings, plus or minus 1 foot. The vertical alignment shall be as shown on the drawings, plus or minus 1 foot. If the Contractor cannot meet these tolerances for whatever reason, he shall confer with the Engineer prior to the start of the bore and the Engineer shall approve any changes.
- B. The pipe shall have a minimum cover of 36 inches.
- C. Compound curvatures should be minimized as the safe pulling strength of the pipe may be significantly reduced by the additional tensile stresses due to curvatures. This is limited by the maximum deflection as set forth by the pipe manufacturer or AWWA Standards, whichever is more stringent.
- D. The entry angle should be 12° to 14° ideally (not to exceed 15°). Exit angle should be 6° to 12° (maximum) to facilitate the pullback operation.
- E. Erosion and sedimentation control measures and on-site containers shall be installed to prevent drilling mud from spilling out of entry and/or exit pits.
- F. Drilling mud shall be disposed of off-site in accordance with applicable local, State and Federal requirements and/or permit conditions. It is the Contractor's responsibility to test the drilling mud material to determine if it is hazardous. If determined to be hazardous, drilling muds are to be pumped into a container. The mud shall then be transported by a licensed hazardous waste hauler to a waste disposal firm. The Contractor, as part of this Contract, is responsible for the cost of all mud disposal including, hauling, testing, and final disposal.
- G. Pilot holes shall be drilled on bore path with no deviation greater than plus or minus 1 foot horizontally or vertically from the design over a length of 100 feet. In the event that the allowable deviation is exceeded, the Contractor shall notify the Engineer, and the Owner may require the Contractor to pull back and re-drill from a location along the bore path before the deviation. Contractor shall use appropriate reamer type (winged, fluted, barrel, etc) for expected soil conditions.
- H. Upon successful completion of the pilot hole, the borehole shall be reamed to a minimum of 25 percent greater than the outside diameter of the pipe being installed. For bores with more than two radii of curvature (entrance and exit), the borehole should be reamed up to 50 percent larger than the outside diameter of the carrier pipe. Prereaming may be necessary dependent on size of material to be pulled.

All pipe to be pulled (6" and larger) shall be prereamed prior to pullback.

Additional passes for prereaming may be required for larger pipe. Incremental increases of 4" to 6" shall be used as needed until appropriate bore hole size has been achieved.

Prereaming does not constitute pull back of product with final size reamer head attached. Prereaming must be accomplished with no product attached to the reamer head on all bore pipe 6" and larger. The bore product may be pulled back on final pass of prereaming, granted the reamer head is no larger than 6" from the previous pass.

All bore pipe to be pulled back on final pass shall have a "breakaway" device installed. The breakaway limit shall be as recommended by the pipe manufacturer.

- I. The Contractor shall not attempt to ream at a rate greater than the drilling equipment and mud system are designed to safely handle.
- J. In the event of a drilling hole blowout, the Contractor shall be responsible for restoring to original condition any damaged property and cleaning up the environment in the vicinity of the blowout.

3.04 PIPE INSTALLATION

- A. After reaming the borehole to the required diameter, the pipe shall be pulled through the hole. In front of the pipe shall be a swivel and barrel reamer to compact the borehole walls.
- B. Once pullback operations have commenced, the operation shall continue without interruption until the pipe is completely pulled into the borehole. The frictional resistance is the highest just prior to movement and decreases with movement. When pullback ceases, frictional forces and drag forces increase due to the thixotropic nature of drilling mud. The mud starts to gel when it is undisturbed. Therefore, PULLBACK SHALL NEVER BE STOPPED, EXCEPT FOR DRILLING ROD REMOVAL AND PIPE FUSION, UNTIL THE PIPE IS COMPLETELY PULLED INTO ITS PERMANENT POSITION.
- C. Adequate lengths of pipe shall be provided at both the launching and receiving ends to facilitate service connection assemblies.
- D. After pullback, pipe may take several hours to recover from the axial strain, if using HDPE. When pulled from the reamed borehole, the pull-nose should be pulled out 3-4 percent longer than the total length of the pull to avoid having the

pull-nose sucked back below the borehole exit level due to stretch recovery and thermal contraction to an equilibrium temperature.

- E. The pipe entry and exit area shall be graded as needed (by Contractor) to provide support for the pipe and to allow free movement into the borehole. The pipe shall be guided into the borehole to avoid deformation of, or damage to, the pipe.
- F. The pipe shall be installed in a manner that does not cause upheaval, settlement, cracking, and movement or distortion of surface features. Any damages caused by the Contractor's operations shall be corrected by the Contractor.
- G. In the event that unexpected subsurface conditions impeding drilling operations are encountered, the procedure shall be stopped and not continued until the Owner has been consulted. The pipe shall be pulled back through the borehole using the wet insertion construction technique.
- H. If the final grade of the finished bore is not satisfactory to the Owner or any other jurisdictional entity, the pipe shall be abandoned, full pressure grouted in place in accordance with the jurisdictional entity, and an alternate installation shall be made. The abandoned pipe shall be properly shown on "as-built" drawings to be submitted following conclusion of the construction work.
- I. The Engineer shall observe the installed pipe for roundness and/or damage. Evidence of over-pulling or significant surface scratching shall be brought to the attention of the Owner. Deformations of more than 10 percent may be grounds to abandon the bore and have the Contractor re-drill another line.

3.05 BUTT FUSION PROCEDURE

- A. Fusion welds shall be performed by an experienced technician that has been properly trained to meet the pipe manufacturer's procedures. All welds shall meet the pipe manufacturer's recommendations.
- B. As the pipe ends are melted against the heater during the heating period, the molten plastic will swell and form melt beads around the pipe ends. The melt beads should be the same size on both pipe ends, and uniformly sized all the way around.
- C. After melting has been completed, the ends should be separated just enough to remove the heater, observed for uniformity of the beads and quickly (within three seconds) brought together with the recommended pressure.
 - 1. If melted plastic sticks to heater, the two ends should not be joined. The ends should be allowed to cool and the procedure started over.

2. Excess pressures should not be used as this will squeeze too much melt out of the fusion area and result in a weakened joint.
- D. The Contractor may do a preliminary pressure test on the completed string of pipe prior to installation. A pressure test shall be required on the completed directional bore prior to final acceptance.

3.06 CONDITIONS FOR REJECTION OF DIRECTIONAL BORE

- A. If the Engineer is not present during the entire bore.
- B. If the installed "Breakaway" devices should fail during pull back.
- C. If the drilling fluid is "lost" during the pull back of the product and can not be regained within the required timeframe of the manufacturer or if more than a reasonable amount of fluid is used to fill an unknown void and flow can not be regained. No pipe shall be pulled without visible flow of drilling fluid.
- D. If the pipe shall fail a hydraulic pressure test as specified by the manufacturer.
- E. If at any time when the product is pulled back and any exposed areas have a greater than allowable "gouging" or visible marring of the pipe.
- F. If the vertical and horizontal limits are not within tolerances.
- G. Any other defect in material or workmanship which would affect the quality, performance, or installation life of the installed pipeline.

3.07 POST-CONSTRUCTION

- A. General
 1. The as-built variance from the specified bore path shall not exceed plus or minus 1 foot in the vertical plane and plus or minus 1 foot in the horizontal plane.
 2. The Contractor shall be considered as having completed the requirements of the directional bore when he has successfully completed the work, including pressure testing, to the satisfaction of the Engineer and the Owner.
 3. The completed water main shall be pressure tested at 150 psig for two hours for final acceptance and meet the test requirements of Section 33 11 00.
- B. As-Builts

When the directional bore is completed, the Contractor shall provide data log sheets and marked up as built drawings to the Engineer, as required.

Directional Bore Log

Project Name:

Project Number: Date:

Contractor/Site Representative:

Bore Location/Number: Size/Material:

Starting Location: Bore Rod Length:

	Total Length Bored	Distance from Start Point	Depth	Pull Back Pressure	Drilling fluid Pressure	Comments
1.						
2.						
3.						
4.						
5.						
--						
7.						
--						
--						
10.						
11.						
12.						
13.						
14.						
15.						
1..						
17.						
1..						
1..						
20.						
21.						
22.						
23.						
24.						

*Lengths to be measured in rod length increments

Owner's Representative: Contractor:

SECTION 33 11 00
WATER UTILITY DISTRIBUTION PIPING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Pipe
- B. Fittings
- C. Thrust Restraints
- D. Valves
- E. Valve Boxes
- F. Fire Hydrants
- G. Flow Control Valves
- H. Flow Meters
- I. Air Release Valves
- J. Installation
- K. Testing

1.02 RELATED WORK

- A. Section 31 23 33 - Trenching and Backfilling
- B. Section 33 13 00 - Disinfecting of Water Utility Distribution

1.03 REFERENCE STANDARDS

- A. Materials manufactured in United States of America.
- B. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb. (4.54 kg) Rammer and an 18-in. (457 mm) Drop.
- C. ANSI/ASTM D2466 - Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.

- D. ANSI/AWWA C104 - Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
- E. ANSI/AWWA C105 - Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids.
- F. ANSI/AWWA C111 - Rubber-Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
- G. ANSI/AWWA C151 - Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids.
- H. ANSI/AWWA C502 - Dry Barrel Fire Hydrants.
- I. ANSI/AWWA C504 - Rubber Seated Butterfly Valves.
- J. ANSI/AWWA C509 - Resilient Seated Gate Valves three (3) inches through twelve (12) inches NPS, for Water and Sewage Systems.
- K. ANSI/AWWA C550 - Protective Epoxy Interior Coating for Valves and Hydrants.
- L. ANSI/AWWA C600 - Installation of Ductile-Iron Water mains and Appurtenances.
- M. ANSI/AWWA C605 - Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.
- N. ANSI/AWWA C900 - Standard for Polyvinyl Chloride (PVC) Pressure Pipe, four (4) inches through 48 inches, for Water.
- O. ANSI/AWWA C909 - Standard for Molecularly Oriented Polyvinyl Chloride.
- P. ANSI/AWWA C906 - Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4 in. Through 63 in. For Water Distribution and Transmission.
- Q. AWWA M23 - PVC Pipe - Design and Installation.
- R. ASTM D1784-02 - Standard Specifications for Rigid PVC and CPVC Compounds.
- S. ASTM D1785 - Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.

- T. ASTM D2241 - Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-PR).
- U. ASTM D2855 - Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
- V. AWWA C651 - Standard for Disinfecting Water Mains.
- W. AWWA C901 - Polyethylene (PE) Pressure Pipe, Tubing, and fittings, one-half (1/2) inch through three (3) inches, for Water.
- X. Uni-B-3 - Recommended Practice for the Installation of Polyvinyl Chloride (PVC) Pressure Pipe.
- Y. Conform to reference standard by date of issue current on date of Contract Documents.

1.04 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Provide data on pipe materials, pipe fittings, valves, hydrants, and accessories.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.05 PROJECT RECORD DOCUMENTS

- A. Submit documents under provisions of Section 01 70 00.
- B. Accurately record actual locations of piping mains, fittings, valves, connections, and invert elevations.
- C. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.06 QUALITY ASSURANCE

- A. Valves: Manufacturer's name and pressure rating marked on valve body.
- B. All materials in contact with water shall comply with NSF Standard 61 and certified accordingly.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01 60 00.
- B. Deliver and store valves in shipping containers with labeling in place.

PART 2 - PRODUCTS

2.01 PIPE

- A. Ductile-Iron
 - 1. ANSI A21.50 (AWWA C150).
 - 2. All underground pipe to be pressure class 150 with push-on or mechanical joints, unless otherwise indicated. All aboveground pipe to be flanged joints.
 - 3. Restrained joint pipe within casings shall be boltless restrained joint type, equal to American Cast Iron Pipe Company Flex-Ring or American Flex-Grip. Restrained joint pipe outside casings shall be mechanical joint with retainer glands.
 - 4. Bolts for all flanged and mechanical joints shall be high strength, low alloy steel bolts only, meeting the current provisions of AWWA C111. Provide certification of compliance prior to shipment.
 - 5. Pipe manufacturing in accordance with ANSI A21.51 (AWWA C151).
 - 6. Cement lined/bituminous coated in accordance with ANSI A21.4 (AWWA C104).
- B. Polyvinyl Chloride (PVC)
 - 1. Four (4) through 48 inches in diameter - AWWA C900, DR 18, pressure class 235.
 - 2. Molecularly Oriented Polyvinyl Chloride (PVCO) Pipe meeting AWWA C909 shall be an acceptable alternate. Pipe shall have a minimum pressure class of 150 psi. Provide an affidavit of compliance with AWWA specifications.
 - 3. Each length should be clearly labeled so as to allow identification and specification conformance. Pipe shall bear the National Sanitation Foundation Seal for potable water pipe.
 - 4. All PVC pipe shall be blue in color or bear an acceptable indelible blue marking in three (3) locations for the length of the pipe.
 - 5. Connection for PVC water pipe two (2) inches and larger shall be rubber compression ring type. Bell shall consist of an integral wall section with a solid cross-section elastomeric ring which meets the requirements of ASTM D-1869.

6. Three (3) inches diameter and smaller - ASTM-2241 with an SDR of 21, pressure class 200.
 7. Trace wire shall be 14-gauge UF blue insulated solid core copper wire with joint seal.
- C. Polyethylene (HDPE)
1. For service piping only: AWWA C901, ASTM D-3350, PE 4710, Pressure Class 250, DR-9.
 2. For Distribution and Transmission piping: AWWA C906, PE 4710 Pressure Class 200, DR - 11, ductile iron outside diameter.
 3. Each length shall be clearly labeled to ensure identification and specification conformance. All materials shall bear the NSF seal for potable water pipe.
 4. All PE pipe shall be blue in color or have a blue color stripe co-extruded with the pipe.
 5. Fittings shall have the same pressure class as adjoining pipe.
 6. All thermal butt fusion shall be performed by trained workers in conformance to AWWA C906 and manufacturer's instructions.

2.02 FITTINGS

- A. All fittings shall be rated for not less than 150 psi working pressure.
- B. Grade for ductile-iron fittings shall conform with ANSI/ AWWA Standard C110 or ANSI/ AWWA C111/A21.11, and shall be cement lined inside and bituminous coated outside. Mechanical joint ductile-iron fittings complying with AWWA C153 are acceptable.
- C. Bolts for all flanged and mechanical joints shall be high strength, low alloy steel bolts only, meeting the current provisions of AWWA C111. Bolt manufacturer's certification of compliance must accompany each shipment, with copy to Engineer.
- D. Malleable iron fittings shall be galvanized conforming to the applicable provision of Federal Specification WW-P-521D, Type II, and may be used in sizes two (2) inches and under only.
- E. Polyvinyl chloride (PVC) fittings shall be minimum Schedule 40 and may be used in size two (2) inches and under only.

2.03 THRUST RESTRAINTS

- A. All mechanical joint fittings shall be restrained with retainer glands. Where indicated, pipe joints shall be restrained.
- B. Retainer Glands for Fittings on PVC Pipe: Where PVC pipe is being connected to mechanical joint fittings, retainer glands shall be Ebaa Megalug Series 2000PV. Retainer glands shall be designed to meet Uni-Bell Standard 11Uni-B-1311. The restraint mechanism shall consist of a plurality of individually activated gripping surfaces to maximize restraint capability. Glands shall be manufactured 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 AWWA C-111 and C-153. Twist-off nuts, sized same as tee-head bolts, shall be used to insure proper actuation of restraining devices. The retaining gland shall have a pressure rating equal to that of the PVC pipe on which it is used.
- C. Retainer Glands for Fittings on Ductile Iron Pipe: Where ductile iron pipe is being connected to mechanical joint fittings, retainer glands shall be Ebaa Megalug Series 1100. Mechanical joint restraint shall be incorporated in the design of the follower gland and shall include a restraining mechanism which, when actuated, imparts a multiple wedging action against the pipe, increasing its resistance as pressure increases. Glands shall be manufactured of ductile iron conforming to ASTM A536. Restraining devices shall be of ductile iron heat treated to a minimum Brinnell hardness of 370. 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 AWWA C-111 and C-153. Twist-off nuts, sized same as tee-head bolts, shall be used to insure proper actuation of restraining devices. The retaining gland shall have a pressure rating of at least 250 psi with a minimum safety factor of 2.
- D. Retainers for PVC Pipe: Where PVC pipe is indicated as being restrained, retainers for new C900 pipe, 4 to 12-inch diameter, shall be Ebaa Series 1500 and for new C900 pipe, greater than 14-inch diameter, shall be Ebaa Series 2800. Retainers for existing C900 pipe 4 to 12- inch diameter shall be Ebaa Series 1500 and retainers for existing C900 pipe greater than 14-inch diameter shall be EBAA Series 1100HV. Retainers shall be manufactured of 60-42-10 ductile iron. The retainer shall have sufficient number of ductile tie bolts to restrain working and test pressures as stated by the manufacturer. Each ductile clamp shall have serrations on the I.D. sufficient to hold working and test pressures.
- E. Retainers for Mechanical Joint Ductile Iron Pipe: Where mechanical joint ductile iron pipe is indicated as being restrained, retainer glands shall be as specified for mechanical joint fittings above.

2.04 VALVES

- A. Gate Valves four (4) inches and over shall be of the resilient wedge type and shall be in accordance with ANSI/AWWA C509 (latest edition) with O-ring type stem seal and two (2) inch square operating nut for buried services. Valves shall be mechanical joint unless otherwise noted and open left (counter clockwise). Bolts, studs and nuts shall be made from corrosion - resistant materials.
- B. Gate Valves two (2) inches and under shall conform with Federal Specifications WW-V-54, Type II, solid wedge disc, rising stem, secured joints and of bronze construction. Valves shall have malleable iron hand wheels.
- C. All valves shall be American made, minimum 150 psi cold water rates and shall be cast with manufacturer's name and pressure rating. All valves shall receive interior coating conforming to AWWA C550.

2.05 VALVE BOXES

- A. Boxes shall be cast iron of standard design with adjustable drop section to fit disc or cover over valve. Interior diameter shall be not less than five (5) inches, with cast iron cover marked 11WATER11.

2.06 FIRE HYDRANTS

- A. ANSI/AWWA C502 and the following requirements:
 - 1. Dry barrel compression type.
 - 2. O-ring seal at operating nut stem and means for lubrication.
 - 3. Traffic model with frangible sections at ground line.
 - 4. Open left (counter clockwise).
 - 5. Two 2-1/2 inch hose nozzles and one 4-1/2 inch pump nozzle with National Standard threads.
 - 6. Main valve openings shall be not less than 5-1/4 inches.
 - 7. Paint shall match applicable City standard.
 - 8. Pipe inlet shall be six (6) inch mechanical joint.
 - 9. Operating nut shall be pentagonal measuring 1-1/2 inch point to flat.
 - 10. All bolts, studs and nuts shall be made from a corrosion-resistant material.
 - 11. Drain outlet shall not be omitted.
 - 12. All hydrant leads shall be valved.
 - 13. All hydrants shall be installed plumb and in true alignment with the connection pipe to the water main.
- B. Acceptable are Mueller Centurion or Waterous 11Pacer11.

2.07 AIR RELEASE VALVES

- A. Air release valves shall be as manufactured by APCO Valve and Primer Corp. only, 1420 S. Wright Blvd., Schaumburg, Illinois 60193-4599, or equal.
- B. When 1" or 2" air and vacuum valves are indicated, APCO Model 143C shall be provided, having inlet and blow off of valves, and quick disconnect couplings.
- C. The combination air valves shall be fitted with inlet isolation valves.

2.08 BEDDING MATERIALS

- A. Bedding: Silica Sand or local materials meeting requirements of Section 902, Standard Specifications for Road and Bridge Construction, latest edition. All bedding material imported to site shall be tested for corrosivity prior to usage and shall be rated as 11mildly aggressive11.

2.09 ACCESSORIES

- A. Concrete for Thrust Blocks: 2500 psi minimum compressive strength.
- B. Backflow Preventer: Provided by City as required.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions.
- B. Verify that municipal utility water main size, location and invert are as indicated.

3.02 PREPARATION

- A. Ream pipe and tube ends and remove burrs, as required.
- B. Remove scale and dirt, on inside and outside, before assembly.
- C. Prepare pipe connections to equipment with flanges or unions.

3.03 BEDDING

- A. Excavate and backfill pipe trench in accordance with Section 31 23 33 for Work of this Section. Hand trim excavation for accurate placement of pipe to elevations indicated.
- B. Maintain optimum moisture content of bedding material to attain required compaction density.

3.04 INSTALLATION - PIPE

- A. Maintain 10 ft. minimum horizontal or 18-in. minimum vertical separation of water main from sewer piping in accordance with State requirements.
- B. Install pipe to indicated elevation to within tolerance of 5/8 inches.
- C. Install ductile iron piping and fittings to ANSI/AWWA C600. Install PVC piping to AWWA C605. Install PE piping to AWWA C906.
- D. Route pipe in straight line, except as noted.
- E. Install pipe to allow for expansion and contraction without stressing pipe or joints.
- F. Install access fittings to permit disinfection of water system.
- G. Establish elevations of buried piping to ensure not less than 36 inches of cover, unless otherwise shown on the drawings.
- H. Backfill trench in accordance with Section 31 23 33 - Trenching and Backfilling.
- I. Installation and restoration operation under roads, shoulders or other level areas shall be performed in compliance with any City, County or State requirement which may apply.
- J. Every effort shall be made to cover pipe ends during installation and a watertight plug or other approved seal must be used when installation is not in progress.
- K. All stubbed valves shall be installed with retaining glands, tied off or with a minimum of sixty (60) feet of pipe.
- L. Allowable deflection shall be no greater than stated in the applicable AWWA standard.

- M. No pipe shall be laid when, in the opinion of the inspector, trench conditions are unsuitable. Pipe shall be laid in a dry trench unless otherwise authorized by the inspectors of the City which will own the water line.
- N. Length of open trench on existing roads may be limited by the inspector of the City to minimize public inconvenience or danger to life or property.

3.05 PIPE IDENTIFICATION

- A. A plastic dig-warning tape shall be buried 24 inches above the top, but no shallower than 12 inches from the top of the final grade, for the pipe's full length. The tape shall be at least 3 inches wide. The tape shall have colored lettering or background color and worded to indicate the presence and the contents of the pipeline. Color shall be blue for water.
- B. Install solid strand tracer wire and joint seal (Kearney Aquaseal, Bishop, or approved equal) along all non-metallic pipe and services. Tracer wire shall be blue (water) coated (#) 14 gauge UF (Underground Feeder per National Electric Code Article 339) and must be taped below the spring line of the pipe and stubbed up at valves and hydrants. At each valve, the wire shall be installed along the outside of the valve box to the adjustable top piece. Sections of wire shall be spliced together using Buchanan connectors. Twisting the wire together is not acceptable. The tracer wire must provide full signal conductivity (including splices) for line locating equipment. Tape wire at 5-ft intervals during installation to prevent shifting during backfilling.
- C. Each segment of tracer wire shall be demonstrated to be electrically continuous between turn-ups after backfilling and before the pipe is accepted as complete.

3.06 INSTALLATION - VALVES AND HYDRANTS

- A. Set valves on solid bearing.
- B. Center and plumb valve box over valve. Set box cover flush with finished grade. Pour concrete pad around valve box in accordance with standard details.
- C. Set hydrants plumb and locate pumper nozzle perpendicular to roadway.
- D. Set hydrants to grade, with nozzles at least 20 inches above ground.
- E. Locate control valve adjacent to hydrant. Control valve shall be attached directly to the water main by a gland or swivel tee as approved by the Engineer. Restraining rods shall be at least 3/4" stock and shall be galvanized or stainless steel.

- F. Paint hydrants in accordance with applicable City requirements.
- G. After installation, each hydrant shall be flow tested and results reported to Owner.

3.07 CONNECTIONS TO EXISTING LINES

- A. Connections to existing lines owned by the City shall be made by the Contractor under supervision of the Water Department.
- B. Whenever it is proposed to interrupt existing water supplies to residences or businesses, the Contractor shall notify all concerned parties or agencies at least 24 hours prior to such cut-off.

3.08 TESTING

- A. A 48-hour notice shall be provided to Engineer and the City prior to testing. After installation is completed, the system shall be filled with water and flushed at the highest obtainable velocity and at the furthest points. Velocity must be at least 2.5 feet per second. All air must be expelled. A pressure at least equal to 90 psi should be maintained for a period of one (1) hours. Should the system appear tight, the leakage test may begin.
- B. The Contractor will pump his lines to a pressure equal to or greater than 150 psi. Should pressure fall below 150 psi during the test period, it shall be voided and restarted. Test period shall be two hours. Allowable leakage for ductile iron pipe shall be computed on the basis of Table 6, Section 4, AWWA C600, latest revision, or the applicable formula for installed pipe lengths other than eighteen (18) feet. Allowable leakage for PVC pipe shall be computed on the basis of Table 22, AWWA M23.
- C. The following table approximates the above for a 1,000 foot segment of PVC at 150 psi and may be used in lieu thereof:

ALLOWABLE LEAKAGE PER 1,000 FEET OF PIPELINE

<u>Pipe Size (inches)</u>	<u>Allowable Leakage (Gallon/hr.)</u>
211	0.16
411	0.33
611	0.50
811	0.66
1011	0.83

1211	0.99
1411	1.16
16"	1.32
18"	1.49

- D. All reports to be reported on Florida Department of Health standard form. Copies may be obtained from Engineer.

3.09 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of Section 01 40 00.
- B. Compaction testing will be performed in accordance with AASHTO T180.
- C. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to Owner.
- D. Frequency of Tests: per Section 31 23 33 - Trenching and Backfilling.

END OF SECTION

SECTION 33 13 00
DISINFECTING OF WATER UTILITY DISTRIBUTION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Disinfection of potable water transmission and distribution lines.
- B. Disinfection of tanks, wells, pumps, and other facilities that will come in contact with potable water.
- C. Testing and reporting results.

1.02 RELATED SECTIONS

- A. Section 01 33 00 - Submittals
- B. Section 01 40 00 - Quality Requirements

1.03 REFERENCES

- A. AWWA B300 - Standard for Hypochlorites; American Water Works Association.
- B. AWWA B301 - Standard for Liquid Chlorine; American Water Works Association.
- C. AWWA C651 - Disinfecting Water Mains; American Water Works Association.
- D. AWWA C652 - Disinfection of Water Storage Facilities
- E. AWWA C654 - Disinfection of Wells
- F. Florida Administrative Code, Chapter 62-555.345.

1.04 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Test Reports: Indicate results comparative to specified requirements.
- C. Disinfection report:

1. Type and form of disinfectant used.
 2. Date and time of disinfectant injection start and time of completion.
 3. Test locations.
 4. Initial and 24 hour disinfectant residuals (quantity in treated water) in ppm for each outlet tested.
 5. Date and time of flushing start and completion.
 6. Disinfectant residual after flushing in ppm for each outlet tested.
- D. Bacteriological report:
1. Date issued, project name, and testing laboratory name, address, and telephone number.
 2. Time and date of water sample collection.
 3. Name of person collecting samples.
 4. Test locations.
 5. Initial and 24 hour disinfectant residuals in ppm for each outlet tested.
 6. Coliform bacteria test results for each outlet tested.
 7. Certification that water conforms, or fails to conform, to bacterial standards of Polk County Health Department.
 8. Authorized signature by the laboratory performing the test.

1.05 REGULATORY REQUIREMENTS

- A. All disinfection of water facilities shall be done in accordance with the rules and regulations of the Florida Department of Environmental Protection.
- B. No water facilities will be permitted to be placed into service until they have been cleared by the Health Department.
- C. Perform Work in accordance with AWWA C651 for piping, AWWA C652 for storage facilities or AWWA C654 for wells.

1.06 QUALIFICATIONS

- A. Testing Firm: FDEP certified laboratory specializing in testing potable water systems.

PART 2 - PRODUCTS

2.01 DISINFECTION CHEMICALS

- A. Chemicals: AWWA B300, Hypochlorite and AWWA B301, Liquid Chlorine.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that facilities to be disinfected have been cleaned, inspected, and pressure tested.
- B. Schedule disinfecting activity to coordinate with start-up, testing, adjusting and balancing, demonstration procedures, including related systems.

3.02 EXECUTION

- A. Provide and attach required equipment to perform the work of this Section.
- B. Inject or otherwise apply disinfectant into facilities, following procedures that assure full contact with all surfaces.
- C. Maintain disinfectant in system for 24 hours. Obtain prior approval for alternate disinfection procedures that may allow different disinfection time.
- D. Flush, circulate, and clean until required cleanliness is achieved; use municipal domestic water.
- E. Replace permanent system devices removed for disinfection.

3.03 FIELD QUALITY CONTROL

- A. Perform field inspection and testing in accordance with Section 01 40 00.
- B. Test samples in accordance with AWWA C651 for piping, AWWA C652 for storage facilities, or AWWA C654 for wells.

END OF SECTION

DIVISION 6
TECHNICAL SPECIFICATIONS

APPENDIX 1
PERMITS



FLORIDA DEPARTMENT OF Environmental Protection

Southwest District
13051 North Telecom Parkway #101
Temple Terrace, Florida 33637-0926

Ron DeSantis
Governor

Jay Collins
Lt. Governor

Alexis A. Lambert
Secretary

Notification of Acceptance of Use of a General Permit

PERMITTEE:

Olivia Minshew, City Manager
City of Wauchula
126 South 7th Avenue
Wauchula, FL 33873
ominshew@cityofwauchula.com

Permit Number: 0147708-043-DSGP/02

Issue Date: August 5, 2026

Expiration Date: August 4, 2031

County: Hardee

Project Name: Heard Bridge Road Water
Main Loop

Water Supplier: City of Wauchula

PWS ID: 625-0329

Dear Olivia Minshew:

On August 3, 2026, the Florida Department of Environmental Protection received a “*Notice of Intent to Use the General Permit for Construction of Water Main Extensions for PWSs*” [DEP Form No. 62-555.900(7)], under the provisions of Rule 62-4.530 and Chapter 62-555, Florida Administrative Code (F.A.C.). The proposed project includes the construction of approximately: 7,300 linear feet of eight-inch diameter water main pipe(s). The project is located along East Rea Road and runs south on Heard Bridge Road in the city of Wauchula.

Based upon the submitted Notice and accompanying documentation, this correspondence is being sent to advise that the Department does not object to the use of such general permit at this time. Please be advised that the permittee is required to abide by Rule 62-555.405, F.A.C., all applicable rules in Chapters 62-4, 62-550, 62-555, F.A.C., and the General Conditions for All General Drinking Water Permits (found in 62-4.540, F.A.C.).

All construction must be in accordance with this permit. Before commencing work on project changes for which a construction permit modification is required per 62-555.536(1), the permittee shall submit to the Department a written request for a permit modification. Each such request shall be accompanied by one copy of a revised construction permit application, the proper processing fee and one copy of either a revised preliminary design report or revised drawings, specifications and design data.

The permittee shall comply with all sampling requirements specific to this project. These requirements are attached for review and implementation.

Pursuant to Rule 62-555.345, F.A.C., the permittee shall submit a certification of construction completion [DEP Form No. 62-555.900(9)] to the Department and obtain approval, or clearance,

Permittee: Olivia Minshew, City Manager
City of Wauchula
Project: Heard Bridge Road Water Main Loop

DEP File No.: 0147708-043-DSGP/02

Page 2

from the Department before placing any water main extension constructed under this general permit into operation for any purpose other than disinfection or testing for leaks.

Within 30 days after the sale or legal transfer of ownership of the permitted project that has not been cleared for service in total by the Department, both the permittee and the proposed permittee shall sign and submit an application for transfer of the permit using Form 62-555.900(8), F.A.C., with the appropriate fee. The permitted construction is not authorized past the 30-day period unless the permit has been transferred.

This permit will expire five years from the date of issuance. If the project has been started and not completed by that time, a new permit must be obtained before the expiration date in order to continue work on the project, per Rule 62-4.030, F.A.C.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION



for Gerald "J.J." Loesch
Environmental Administrator
Permitting & Waste Cleanup Program
Southwest District

Enclosures: Clearance Requirements/Utilities Separation Requirements

cc:

Robert Hungate, P.E., Chastain-Skillman, Inc., ahungate@dccm.com
Olivia Minshew, City of Wauchula, ominshew@cityofwauchula.com
Kyle Long, City of Wauchula, klong@cityofwauchula.com
Gerald "J.J." Loesch, DEP SWD, Gerald.Loesch@FloridaDEP.gov
Sarah West, DEP SWD, Sarah.J.West@FloridadDEP.gov

A Civil Penalty May Be Incurred
if this project is placed into operation before obtaining a clearance from this office.

Requirements for clearance upon completion of projects are as follows:

1) Clearance Form

Submission of a fully completed Department of Environmental Protection (DEP) Form 62-555.900(9) *Certification of Construction Completion and Request for Clearance to Place Permitted PWS Components into Operation*.

2) Record Drawings, if deviations were made

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

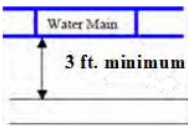
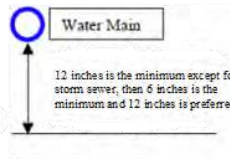
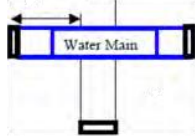
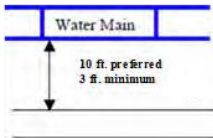
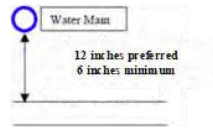
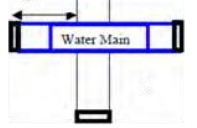
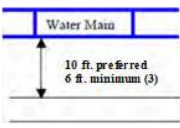
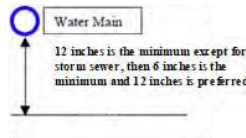
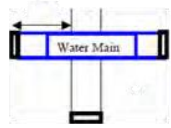
3) Bacteriological Results

Copies of satisfactory bacteriological analysis (a.k.a. Main Clearance), taken within sixty (60) days of completion of construction, from locations within the distribution system or water main extension to be cleared, in accordance with Rules 62-555.315(6), 62-555.320(12)(d), 62-555.350(6), 62-555.340, and 62-555.330, F.A.C. and American Water Works Association (AWWA) Standard C 651-92, as follows:

- Connection to existing system
- The end point of the proposed addition
- Any water lines branching off a main extension
- Every 1,200 feet on straight runs of pipe

Each location shall be sampled on two consecutive days, at least 6 hours apart, with sample points and chlorine residual readings clearly indicated on the report. A sketch or description of all bacteriological sampling locations must also be provided.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH RULE 62-555.314, F.A.C.

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)			
Vacuum Sanitary Sewer			
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)			
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

(1) Water main should cross over other pipe. When water main must be below other pipe, the minimum separation is 12 inches.

(2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.

(3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.

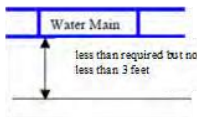
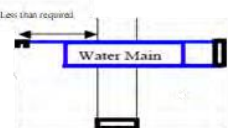
(4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

EXCEPTIONS TO MINIMUM SEPARATION REQUIREMENTS

Where it is not technically feasible or economically sensible to comply with the requirements of 62-555.314(1) or (2), F.A.C., the Department shall allow exceptions to these requirements if suppliers of water or construction permit applicants provide technical or economic justification for each exception and provide alternative construction features that afford a similar level of reliability and public health protection.

Acceptable alternative construction features include the following:

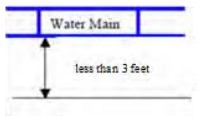
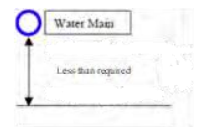
LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH 62-555.314(5)(a), F.A.C.

Other Pipe	Horizontal Separation	Joint Spacing @Crossings (Full Joint Centered)
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water, Vacuum Sanitary Sewer, Storm Sewer, Stormwater Force Main		

Where an underground water main is being laid less than the required minimum horizontal distance from another pipeline and where an underground water main is crossing another pipeline and joints in the water main are being located less than the required minimum distance from joints in the other pipeline:

1. Use of pressure-rated pipe conforming to the American Water Works Association standards incorporated into Rule 62- 555.330, F.A.C., for the other pipeline if it is a gravity- or vacuum-type pipeline;
2. Use of welded, fused, or otherwise restrained joints for either the water main or the other pipeline; or
3. Use of watertight casing pipe or concrete encasement at least four inches thick for either the water main or the other pipeline.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH 62-555.314(5)(b), F.A.C.

Other Pipe	Horizontal Separation	Crossings
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water, Vacuum Sanitary Sewer, Storm Sewer, Stormwater Force Main		

Where an underground water main is being laid less than three feet horizontally from another pipeline and where an underground water main is crossing another pipeline and is being laid less than the required minimum vertical distance from the other pipeline:

Use of pipe, or casing pipe, having high impact strength (i.e., having an impact strength at least equal to that of 0.25-inch-thick ductile iron pipe) or concrete encasement at least four inches thick for both the water main and for the other pipeline if it is new and is conveying wastewater or reclaimed water.

Disclaimer – This document is provided for your convenience only. Please refer to Rule 62-555.314, F.A.C., for additional construction requirements.



FLORIDA DEPARTMENT OF Environmental Protection

Southwest District
13051 North Telecom Parkway #101
Temple Terrace, Florida 33637-0926

Ron DeSantis
Governor

Jay Collins
Lt. Governor

Alexis A. Lambert
Secretary

August 3, 2026

City of Wauchula
% Olivia Minshew
126 South 7th Avenue
Wauchula, Florida 33873
ominshew@cityofwauchula.com

File No.: 25-0472780-001-EG, Hardee County

Dear Olivia Minshew,

On June 15, 2026, we received your notice of intent to use a General Permit (GP), pursuant to Rule 62-330.453, Florida Administrative Code, F.A.C., to install a water main via Horizontal Directional Drilling (HDD) of approximately 7,055 linear feet, of which approximately 1,242 linear feet will go underneath wetlands and other surface waters, near an unnamed freshwater pond. The project is located at approximately 27.556028, -81.809550, Wauchula, Florida 33873, Sections 4 and 33, Townships 33 and 34 South, Range 25 East, Hardee County.

Your intent to use a general permit has been reviewed by Department staff for three types of authorizations: (1) regulatory authorization, (2) proprietary authorization (related to state-owned submerged lands), and (3) federal authorization. The authority for review and the outcomes of the reviews are listed below. Please read each section carefully.

Your project did not qualify for the federal review portion of this verification request. Specifically, the activity is not covered by the State Programmatic General Permit. **Additional authorization must be obtained prior to commencement of the proposed activity.** This letter does not relieve you from the responsibility of obtaining other federal, state, or local authorizations that may be required for the activity. Please refer to the specific section(s) dealing with that portion of the review below for advice on how to proceed.

If you change the project from what you submitted, the authorization(s) granted may no longer be valid at the time of commencement of the project. Please contact us prior to beginning your project if you wish to make any changes.

If you have any questions regarding this matter, please contact Ryan Lucas via email at Ryan.Lucas@FloridaDEP.gov.

1. Regulatory Review – Approved

Based on the forms, drawings, and documents revised with your notice, it appears that the project meets the requirements for the General Permit under Rule 62-330.453, F.A.C. Any activities performed under a general permit are subject to general conditions required in Rule 62-330.405,

F.A.C. (attached), and the specific conditions of Rule 62-330.453, F.A.C. (attached). Any deviations from these conditions may subject the permittee to enforcement action and possible penalties.

Please be advised that the construction phase of the GP must be completed within five years from the date the notice to use the GP was received by the Department. If you wish to continue this GP beyond the expiration date, you must notify the Department at least 30 days before its expiration.

Authority for review- Part IV of Chapter 373, F.S., Title 62, F.A.C. and in accordance with the operating agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C.

2. Proprietary Review – Not Required

The activity does not appear to be located on sovereign submerged lands, and does not require further authorization under Chapter 253 of the Florida Statutes, or Chapters 18-20 or 18-21 of the Florida Administrative Code.

3. Federal Review

3.1 SPGP Not Approved

Your proposed activity as outlined in your application and attached drawings **does not qualify** for Federal authorization pursuant to the State Programmatic General Permit VI-R1. **SEPARATE permit(s)** or authorization **will be required** from the U.S. Army Corps of Engineers.

Authority for review - an agreement with the USACOE entitled “Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection (or Duly Authorized Designee), State Programmatic General Permit”, Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

3.2. Water Quality Certification Granted With Conditions

This permit also constitutes a *granted with conditions* water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. Section 1341. Pursuant to Rule 62-330.062, F.A.C. State Water Quality Certification is granted when an activity meets all the terms and conditions of a general permit under Rule 62-330.052, F.A.C., and the applicable Rules 62-330.401 through 62-330.635, F.A.C.

Additional Information

Please retain this letter. The activities may be inspected by authorized state personnel in the future to ensure compliance with appropriate statutes and administrative codes. If the activities are not in compliance, you may be subject to penalties under Chapter 373, F.S., and Chapter 18-14, F.A.C.

NOTICE OF RIGHTS

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, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; 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 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. 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 21 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 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

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. If you do not publish notice of this action, this waiver will not apply to persons who have not received written notice of this action.

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, 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.

FLAWAC Review

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when the order is filed with the Clerk of the Department.

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.

EXECUTION AND CLERKING

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Sincerely,



Heather McClurg
Environmental Consultant
Permitting & Waste Cleanup Program
Southwest District

Enclosures:
62-330.453, F.A.C.
General Conditions for All General Permits, Ch. 62-330.405, F.A.C.

Attachments:
Project Plans, 19 pages
Frac-Out Plan, 7 pages

cc:
Ryan Lucas, Southwest District, Ryan.Lucas@FloridaDEP.gov
ERP Permitting, Southwest District, sw_erp@floridadep.gov
Craig Stout, Consultant, cstout@esassoc.com
Austin Hungate, Consultant, ahungate@dccm.com

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 above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52(7), F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk  Date 08/03/2026

62-330.453 General Permit for Installation, Maintenance, Repair, and Removal of Utility Lines.

(1) A general permit is granted for the installation, maintenance, repair, and removal of underground utility lines, cable, conduit, or pipeline transmitting electricity, communication signals, potable water, raw water, reclaimed water, domestic wastewater, propane gas or natural gas.

(2) For the purposes of this general permit:

(a) “Directional drilling” means the linear or curvilinear excavation of a tunnel or conduit, in any direction, through the use of drilling equipment that can change direction during excavation; this also includes borehole reaming and pulling following primary drilling.

(b) “Jack-and-bore” means the linear, primarily lateral excavation of a tunnel, typically between excavated subgrade pits, through use of drilling equipment and encasement which is advanced under mechanical force, and includes similar methods commonly termed as “microtunneling.”

(c) “Frac-out” means any release of drilling fluid or slurry which results in above-grade discharge of drilling fluid or slurry or significant loss of such fluid or slurry into the surrounding parent material.

(3) This general permit is limited as follows:

(a) No work occurs within Outstanding Florida Waters, Aquatic Preserves, or Class I waters.

(b) The installation of conduit or pipeline to drain wetlands or other surface waters is not authorized.

(c) Prior to work, existing pipelines shall be evacuated of substances which, if released, could result in a violation of state water quality standards.

(d) The maximum width of the disturbed corridor in wetlands shall not exceed 30 feet.

(e) The total area of forested wetland disturbance shall not exceed 0.5 acre per ten miles of cable, conduit, or pipeline.

(f) Minor above-grade improvements may be constructed in uplands under this general permit, but shall be limited to vents, valves, meter assemblies, relays, junction boxes, pads or similar structures that are directly connected to the utility line, do not create discharges, and which cumulatively comprise no more than 100 square feet of impervious surfaces per mile of utility line.

(g) Installation, maintenance, repair, and removal activities performed via trenching or methods other than directional drilling or jack-and-bore, are subject to the following special conditions:

1. The maximum width of the excavated trench shall not exceed eight feet, with temporary spoil storage banks not to exceed ten feet in width;

2. For a trench with a top width greater than three feet in herbaceous wetlands, the upper layer of the soil horizon shall initially be scraped and segregated into a spoil bank that is separated from the spoil bank resulting from the excavation of the trench for the utility line. The upper layer of the soil horizon shall be replaced as the last step of restored grades to facilitate natural revegetation;

3. Trenching in surface waters shall be limited to wetlands, artificial waters, and residential canal systems; and

4. Temporary spoil banks shall contain breaches that prevent impoundment or restriction of surface water flows;

(h) Installation, maintenance, repair, and removal conducted using directional drilling or jack-and-bore methods are subject to the following special conditions:

1. The maximum outside diameter of the cable, conduit or pipeline, including encasement, shall not exceed 30 inches.

2. A minimum depth of cover, equal to the greater of either five feet, or five times the maximum encased diameter of the utility line to be installed, shall be maintained between the top of the utility line and casing and the soil surface or submerged bottom of any wetland or waterbody being crossed.

3. All work areas associated with directional drilling or jack-and-bore activities, including entrance and exit pits, drill rigs, tanks, pumps, drilling fluid mixing and settling pits, dewatering systems and staging areas for pipe, cables, and drill string, shall be located within uplands.

4. The use of drilling fluids shall not cause or contribute to a violation of state ground water quality criteria or standards, as defined in Chapter 62-520, F.A.C.

5. The permittee shall, at least 48 hours prior to commencement of any directional drilling or jack-and-bore activities, submit to the agency the name, as registered with the Florida Department of State, and all-hours telephone contact information of all contractors responsible for drilling and for containment and cleanup in the event of a drilling fluid frac-out or spill.

6. The contractor shall, at all times during directional drilling activities, maintain appropriate equipment and materials in a readily-accessible location and condition, to effectively contain and clean up a drilling fluid frac-out or spill.

7. The permittee or the permittee's contractor shall, at all times during directional drilling activities, ensure that appropriately-trained personnel monitor downhole equipment position, drilling fluid circulation and pressures, and actively monitor the entire utility line route for surface frac-out of drilling fluids.

8. Drilling activities shall be discontinued and the drilling fluid or slurry shall be contained using appropriate methods as soon as possible, in the event of a drilling fluid frac-out or spill. Removal of drilling fluid or slurry from wetlands and other surface waters shall be initiated and completed in the most expeditious manner practicable. Removed drilling fluid shall be contained or disposed of in an appropriate upland location. Any frac-out or spill of drilling fluid into wetlands or other surface waters shall be reported to Agency staff within 24 hours following detection of the spill or frac-out.

(i) Utilities must be located a minimum of 14 feet below the authorized depth of a federal navigation channel.

Rulemaking Authority 373.026(7), 373.043, 373.118(1), 373.406(5), 373.4131, 373.414(9), 373.418, 403.805(1) FS. Law Implemented 373.118(1), 373.406(5), 373.413, 373.4131, 373.414(9), 373.416, 373.418, 403.814(1) FS. History—New 10-3-95, Formerly 62-341.453, Amended 10-1-13, 6-1-18.

62-330.405 General Conditions for All General Permits

The following general permit conditions are binding upon the permittee and are enforceable under chapter 373, F.S. These conditions do not apply to the general permit for stormwater management systems under section 403.814(12), F.S.

(1) The general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit and may subject the permittee to enforcement action and revocation of the permit under chapter 373, F.S.

(2) The general permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any construction, alteration, operation, maintenance, removal or abandonment authorized by this permit; and it does not authorize any violation of any other applicable federal, state, local, or special district laws (including, but not limited to, those governing the "take" of listed species).

(3) The general permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those

specified in the general permit.

(4) The general permit does not relieve the permittee from liability and penalties when the permitted activity causes harm or injury to: human health or welfare; animal, plant or aquatic life; or property. It does not allow the permittee to cause pollution that violates state water quality standards.

(5) Section 253.77, F.S., provides that a person may not commence any excavation, construction, or other activity involving the use of state-owned or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required consent, lease, easement, or other form of authorization authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on state-owned lands.

(6) The authorization to conduct activities under a general permit may be modified, suspended or revoked in accordance with chapter 120, F.S., and section 373.429, F.S.

(7) The general permit is not transferable to a new third party. To be used by a different permittee, a new notice to use a general permit must be submitted in accordance with rule 62-330.402, F.A.C. Activities constructed in accordance with the terms and conditions of a general permit are automatically authorized to be operated and maintained by the permittee and subsequent owners in accordance with subsection 62-330.340(1), F.A.C. Any person holding the general permit, persons working under the general permit, and owners of land while work is conducted under the general permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to sale, conveyance, or other transfer of ownership or control of the permitted project, activity, or the real property at which the permitted project or activity is located.

(8) Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the permitted system to ensure conformity with the plans and specifications approved by the general permit.

(9) The permittee shall maintain any permitted project or activity in accordance with the plans submitted to the Agency and authorized in the general permit.

(10) A permittee's right to conduct a specific activity under the general permit is authorized for a duration of five years.

(11) Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be implemented and maintained immediately prior to, during, and after construction as needed to stabilize all disturbed areas, including other measures specified in the permit to prevent adverse impacts to the water resources and adjacent lands. Erosion and sediment control measures shall be installed and maintained in accordance with the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007)*, available at <https://www.flrules.org/Gateway/reference.asp?No=Ref-04227>, and the *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008)*, available at http://publicfiles.dep.state.fl.us/DEAR/Stormwater_Training_Docs/erosion-inspectors-manual.pdf.

(12) Unless otherwise specified in the general permit, temporary vehicular access within wetlands during construction shall be performed using vehicles generating minimum ground pressure to minimize rutting and other environmental impacts. Within forested wetlands, the permittee shall choose alignments that minimize the destruction of mature wetland trees to the greatest extent practicable. When needed to prevent rutting or soil compaction, access vehicles shall be operated on wooden, composite, metal, or other non-earthen construction mats. In all cases, access in wetlands shall comply with the following:

(a) Access within forested wetlands shall not include the cutting or clearing of any native wetland

tree having a diameter four inches or greater at breast height;

(b) The maximum width of the construction access area shall be limited to 15 feet;

(c) All mats shall be removed as soon as practicable after equipment has completed passage through, or work has been completed, at any location along the alignment of the project, but in no case longer than seven days after equipment has completed work or passage through that location; and

(d) Areas disturbed for access shall be restored to natural grades immediately after the maintenance or repair is completed.

(13) Barges or other work vessels used to conduct in-water activities shall be operated in a manner that prevents unauthorized dredging, water quality violations, and damage to submerged aquatic communities.

(14) The construction, alteration, or use of the authorized project shall not adversely impede navigation or create a navigational hazard in the water body.

(15) Except where specifically authorized in the general permit, activities must not:

(a) Impound or obstruct existing water flow, cause adverse impacts to existing surface water storage and conveyance capabilities, or otherwise cause adverse water quantity or flooding impacts to receiving water and adjacent lands; or

(b) Cause an adverse impact to the maintenance of surface or ground water levels or surface water flows established pursuant to section 373.042, F.S., or a Works of the District established pursuant to section 373.086, F.S.

(16) If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S.

(17) The activity must be capable, based on generally accepted engineering and scientific principles, of being performed and of functioning as proposed, and must comply with any applicable District special basin and geographic area criteria.

(18) The permittee shall comply with the following when performing work within waters accessible to federally- or state-listed aquatic species, such as manatees, marine turtles, smalltooth sawfish, and Gulf sturgeon:

(a) All vessels associated with the project shall operate at "Idle Speed/No Wake" at all times while in the work area and where the draft of the vessels provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

(b) All deployed siltation or turbidity barriers shall be properly secured, monitored, and maintained to prevent entanglement or entrapment of listed species.

(c) All in-water activities, including vessel operation, must be shut down if a listed species comes within 50 feet of the work area. Activities shall not resume until the animal(s) has moved beyond a 50-foot radius of the in-water work, or until 30 minutes elapses since the last sighting within 50 feet. Animals must not be herded away or harassed into leaving. All onsite project personnel are responsible for observing water-related activities for the presence of listed species.

(d) Any listed species that is killed or injured by work associated with activities performed shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline

at 1(888)404-3922 and ImperiledSpecies@myFWC.com.

(e) Whenever there is a spill or frac-out of drilling fluid into waters accessible to the above species during a directional drilling operation, the FWC shall be notified at ImperiledSpecies@myfwc.com with details of the event within 24 hours following detection of the spill or frac-out.

(19) The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any activity authorized by the general permit.

(20) The permittee shall immediately notify the Agency in writing of any submitted information that is discovered to be inaccurate.

Rulemaking Authority 373.026(7), 373.043, 373.118(1), 373.406(5), 373.4131, 373.414(9), 373.4145, 373.418, 403.805(1) FS. Law Implemented 373.044, 373.118(1), 373.129, 373.136, 373.406(5), 373.413, 373.4131, 373.414(9), 373.4145, 373.416, 373.422, 373.423, 373.429, 403.814(1) FS. History—New 10-3-95, Amended 10-1-07, Formerly 62-341.215, Amended 10-1-13, 6-1-18.

FRAC-OUT CONTINGENCY PLAN

FOR HORIZONTAL DIRECTIONAL DRILLING

- 1.0 Introduction and Purpose
- 2.0 Description of Work
- 3.0 Site Supervisor/Foreman Responsibilities
- 4.0 Equipment
- 5.0 Training
- 6.0 Drilling Procedures
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FRAC-OUT CONTINGENCY PLAN

1.0 Introduction and Purpose

Directional bore operations have a potential to release drilling fluids into the surface environment through fractured bedrock into the surrounding rock and sand and travels toward the surface. Because drilling fluids consist largely of a bentonite clay-water mixture, they are not classified as toxic or hazardous substances. However, if it is released into water bodies, bentonite has the potential to adversely impact fish and invertebrates.

While drilling fluid seepage associated with a frac-out is most likely to occur near the bore entry and exit points where the drill head is shallow, frac-outs can occur in any location along a directional bore. This Frac-Out Contingency Plan establishes operational procedures and responsibilities for the prevention, containment, and clean-up of frac-outs associated with the proposed directional drilling utility project. All personnel and subcontractors responsible for the work must adhere to this plan during the directional drilling process.

The specific objectives of this plan are to:

- Minimize the potential for a frac-out associated with directional drilling activities
- Provide for the timely detection of frac-outs
- Protect the environmentally sensitive stream bed and associated vegetation
- Ensure an organized, timely, and minimum-impact response in the event of a frac-out and release of drilling bentonite
- Ensure that all appropriate notifications are made immediately to the owner, safety personnel, and regulatory agencies

2.0 Description of Work

The proposed project consists of horizontally directional drilling a 12-inch diameter HDPE water main beneath Saddle Creek.

Drilling operations will be halted by the drill rig operators immediately upon detection of a drop in drilling pressure or other evidence of a frac-out. The clean-up of all spills shall begin immediately. The owner, safety personnel, and appropriate regulatory agencies shall be notified immediately of any spills and shall be consulted regarding clean-up procedures. A spill kit shall be on-site and used if a frac-out occurs. A vacuum truck and containment materials, such as straw bales, shall also be on-site prior to and during all operations. The site supervisor will be immediately notified. In the event of a frac-out, the on-site foreman/supervisor will conduct an evaluation of the situation and direct recommended mitigation actions, based on the following guidelines:

- If the frac-out is minor, easily contained, has not reached the surface and is not threatening sensitive resources, drilling operations may resume after use of a leak stopping compound or redirection of the bore.

- If the frac-out has reached the surface, any material contaminated with Bentonite shall be removed by hand to a depth of 2 feet, contained and properly disposed of, as required by law. The drilling contractor shall be responsible for ensuring that the bentonite is either properly disposed of at an approved disposal facility or properly recycled in an approved manner. The site supervisor shall notify and take any necessary follow-up response actions in coordination with agency representatives. The site supervisor will coordinate the mobilization of equipment stored at off-site locations (e.g., vacuum trucks) on an as needed basis.

3.0 Site Supervisor/Foreman Responsibilities

The site supervisor/foreman has overall responsibility for implementing this Frac-Out Contingency Plan. The site supervisor/foreman will ensure that all employees are trained prior to all drilling. The site supervisor/foreman will be responsible for ensuring that safety personnel are aware of the frac-out, coordinate personnel, response, cleanup, regulatory agency notification and coordination to ensure proper cleanup, disposal of recovered material, and timely reporting of the incident. The site supervisor/foreman shall ensure all waste materials are properly containerized, labeled, and removed from the site to an approved disposal facility by personnel experienced in the removal, transport, and disposal of drilling mud.

The site supervisor/foreman shall be familiar with all aspects of the drilling activity, the contents of this Frac-Out Contingency Plan and the conditions of approval under which the activity is permitted to take place. The site supervisor/foreman shall have the authority to stop work and commit the resources (personnel and equipment) necessary to implement this plan. The site supervisor/foreman shall assure that a copy of this plan is available on-site and accessible to all construction personnel. The site supervisor/foreman shall ensure that all workers are properly trained and familiar with the necessary procedures for response to a frac-out, prior to commencement of drilling operations.

4.0 Equipment

The site supervisor shall ensure that:

- All equipment and vehicles are checked and maintained daily to prevent leaks of hazardous materials
- Spill kits and spill containment materials are available on-site at all times and that the equipment is in good working order
- Equipment required to contain and clean up a frac-out release will either be available at the work site or readily available at an off-site location within 15 minutes of the bore site
- If equipment is required to be operated near the streambed, absorbent pads and plastic sheeting for placement beneath motorized equipment shall be used to protect the streambed from engine fluids

5.0 Training

Prior to the start of construction, the site supervisor/foreman, shall ensure that the crew members receive training in the following:

- The provisions of the Frac-Out Contingency Plan, equipment maintenance and site-specific permit and monitoring requirements
- Inspection procedures for release prevention and containment equipment and materials
- Contractor/crew obligation to immediately stop the drilling operation upon first evidence of the occurrence of a frac-out and to immediately report the frac-out releases
- Contractor/crew member responsibilities in the event of a release
- Operation of release prevention and control equipment and the location of release control materials
- Protocols for communication with agency representatives who might be on-site during the clean-up effort

6.0 Drilling Procedures

The following procedures shall be followed each day, prior to the start of work. The Frac-Out Contingency Plan shall be available on-site during all construction. The site supervisor/foreman shall be on-site at any time that drilling is occurring or is planned to occur. The site supervisor/foreman shall ensure that a job briefing meeting is held at the start of each day of drilling to review the appropriate procedures to be followed in case of a frac-out.

Drilling pressures shall be closely monitored so they do not exceed those needed to penetrate the formation. Pressure levels shall be monitored randomly by the operator. Pressure levels shall be set at a minimum level to prevent frac-outs. During the pilot bore, maintain the drilled annulus. Cutters and reamers will be pulled back into previously drilled sections after each new joint of pipe is added.

Exit and entry pits shall be enclosed by silt fences and straw. A spill kit shall be on-site and used if a frac-out occurs. A vacuum truck shall be readily available on-site prior to and during all drilling operations. Containment materials (straw, silt fencing, sandbags, frac-out spill kit, etc.) shall be staged on-site at location where they are readily available and easily mobilized for immediate use in the event of an accidental release of drilling mud. If necessary, barriers (straw bales or sedimentation fences) between the bore site and the edge of the water source, shall be constructed, prior to drilling, to prevent released bentonite material from reaching the water.

Once the drill rig is in place, and drilling begins, the drill operator shall stop work whenever the pressure in the drill rig drops, or there is a lack of return in the entrance pit. At this time the site supervisor/foreman shall be informed of the potential frac-out. The site supervisor/foreman and the drill rig operator shall work to coordinate the likely location of the frac-out. The location of the frac-out shall be recorded and notes made on the location and measures taken to address the concern. The following subsections shall be adhered to when addressing a frac-out situation.

Water containing mud, silt, bentonite, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake, flowing stream, or any other water source. The bentonite used in the drilling process shall be either disposed of at an approved disposal facility or recycled in an approved manner. Other construction materials and wastes shall be recycled, or disposed of, as appropriate.

6.1 Vac-Truck

A vacuum truck shall be staged at a location from which it can be mobilized and relocated so that any place along the drill shot, can be reached by the apparatus within 10 minutes of a frac-out.

6.2 Field Response to Frac-out Occurrence

The response of the field crew to a frac-out release shall be immediate and in accordance with procedures identified in this Plan. All appropriate emergency actions that do not pose additional threats to sensitive resources will be taken, as follows:

- Directional boring will stop immediately
- The bore stem will be pulled back to relieve pressure on frac-out
- The site supervisor/foreman will be notified to ensure that safety personnel is notified, adequate response actions are taken, and notifications made
- The site supervisor/foreman will evaluate the situation and recommend the type and level of response warranted, including the level of notification required
- If the frac-out is minor, easily contained, has not reached the surface and is not threatening sensitive resources, a leak stopping compound shall be used to block the frac-out. If the use of leak stopping compound is not fully successful, the bore stem shall be redirected to a new location along the desired drill path where a frac-out has not occurred
- If the frac-out has reached the surface, any material contaminated with bentonite shall be removed by hand, to a depth of 2 feet, contained and properly disposed of as required by law. A dike or berm may be constructed around the frac-out to entrap released drilling fluid if necessary. Clean sand shall be placed and returned to pre-project contours
- If a frac-out occurs, reaches the surface and becomes widespread, the site supervisor shall authorize a readily accessible vacuum truck and bulldozer stored off-site to be mobilized. The vacuum truck may be either positioned at either end of the line of the drill so that the frac-out can be reached by crews on foot, or may be pulled by a bulldozer, so that contaminated soils can be vacuumed up.

6.3 Response Close-out Procedures

When the release has been contained and cleaned up, response closeout activities will be conducted at the direction of the site supervisor/foreman and shall include the following:

- The recovered drilling fluid will either be recycled or hauled to an approved facility for disposal. No recovered drilling fluids will be discharged into streams, storm drains, or any other water source
- All frac-out excavation and clean-up sites will be returned to pre-project contours using clean fill as necessary
- All containment measures will be removed, unless otherwise specified by the site supervisor/foreman.

6.4 Construction Re-start

For small releases not requiring external notification, drilling may continue, if 100 percent containment is achieved using a leak stopping compound or redirection of the bore and the clean-up crew remains at the frac-out location throughout the construction period.

For releases requiring external notification and/or other agencies, construction activities will not restart without prior approval from safety personnel.

6.5 Bore Abandonment

Abandonment of the bore will only be required when all efforts to control the frac-out within the existing directional bore have failed.

7.0 Notification

In the event of a frac-out that reaches a water source, the site supervisor/foreman will notify the owner and engineer so they can notify the appropriate resource agencies. All agency notifications will occur within 24 hours and proper documentation will be accomplished in a timely and complete manner. The following information will be provided:

- Name and telephone number of person reporting
- Location of the release
- Date and time of release
- Type and quantity, estimated size of release
- How the release occurred
- The type of activity that was occurring around the area of the frac-out
- Description of any sensitive areas, and their location in relation to the frac-out
- Description of the methods used to clean up or secure the site
- Listing of the current permits obtained for the project

7.1 Communicating with Regulatory Agency Personnel

All employees and subcontractors will adhere to the following protocols when permitting regulatory agency personnel arrive on-site. Regulatory agency personnel will be required to comply with appropriate safety rules. Only the site supervisor/foreman and safety personnel are to coordinate communication with regulatory agency personnel.

7.2 Documentation

The site supervisor/foreman shall record the frac-out event in his/her daily log. The log will include the following: details on the release event, including an estimate of the amount of bentonite released, the location and time of release, the size of the area impacted, and the success of the clean-up action. The log report shall also include: the name and telephone number of person reporting, date, how the release occurred, the type of activity that was occurring around the area of the frac-out, description of the methods used to clean up or secure the site, and a listing of the current permits obtained for the project.

8.0 Project Completion and Clean-up

- All materials and any rubbish/construction debris shall be removed from the construction zone at the end of each workday
- Sump pits at bore entry and exits will be filled and returned to natural grade
- All protective measures will be removed unless otherwise specified by the site supervisor/foreman

9.0 Florida Fish and Wildlife Conservation Commission Coordination

Any listed species that is killed or injured by work associated with activities performed shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1(888)404-3922 and ImperiledSpecies@myFWC.com. Whenever there is a spill or frac-out of drilling fluid into waters accessible to the above species during a directional drilling operation, the FWC shall be notified with details of the event within 24 hours following detection of the spill or frac-out.

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