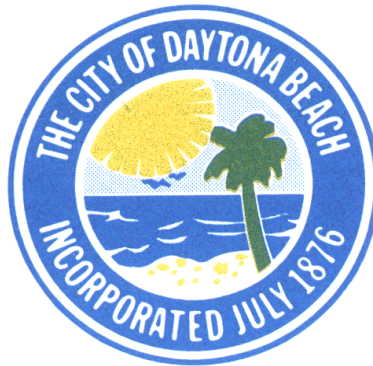


**THE CITY OF DAYTONA BEACH**  
**BETHUNE POINT WRF - PHASE I PROCESS UPGRADES**  
**INVITATION TO BID No. 20253**  
**PROJECT SPECIFIC CONSTRUCTION SERVICES**  
**NIGP COMMODITY CODE 89013, 91223, 91356, 91360**



**THE CITY OF DAYTONA BEACH**  
**UTILITIES DEPARTMENT - ENGINEERING DIVISION**  
**P.O. BOX 2451**  
**DAYTONA BEACH, FLA. 32115**

**ISSUE DATE: January 2, 2020**

LEGAL ADVERTISEMENT  
INVITATION TO BID

The City of Daytona Beach, Florida will receive sealed bids until 2:00 PM, February 3, 2020 at Daytona Beach City Hall, Office of the Purchasing Agent, 301 S Ridgewood Ave, Room 146, Daytona Beach, FL 32114 for:

**ITB 20253 - BETHUNE POINT WRF - PHASE I PROCESS UPGRADES**

Bidders may obtain copies of the Invitation to Bid at [www.codb.us/841/Purchasing](http://www.codb.us/841/Purchasing) and click Public Solicitations.

**A NON-MANDATORY PRE-BID CONFERENCE** will be held at the Daytona Beach Utilities Conference Room, 125 Basin Street, Suite 130, Daytona Beach, Florida 32114, on 1/9/2020 at 3:00 PM. Interested contractors are *urged* to attend.

KIRK ZIMMERMAN, CPPB – BUYER  
CITY OF DAYTONA BEACH  
Issue date: January 2, 2020

## INVITATION TO BID – PROJECT SPECIFIC CONSTRUCTION SERVICES

The City of Daytona Beach will receive bids for the “**BETHUNE POINT WRF - PHASE I PROCESS UPGRADES**”, Invitation to Bid No. 20253, at the City of Daytona Beach Purchasing Division, City Hall Room 146, 301 S. Ridgewood Ave., Daytona Beach, Florida 32114, until **2:00 p.m., on February 3, 2020**, at which time bids will be opened publicly and read aloud. Bids received after said time will be returned unopened.

**Sealed bids** must be addressed to:

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

with “Sealed Bid for BETHUNE POINT WRF - PHASE I PROCESS UPGRADES , ITB No. 20253” plainly written on the outside of the envelope.

**The work** generally consists of process upgrades at the Bethune Point WRF related to 5-stage treatment process, including: conversion of Clarifiers No. 1, 2, and 4 mechanisms to Ovivo Spiral Blade (Owner Furnished); replacement of sock diffusers with disc diffusers in Aeration Tank No. 2 and 3; gasket replacement on process air piping. The order of magnitude for this project is \$1,250,000.

**Bid Documents** may be obtained as pdf files on-line at [www.codb.us/841/Purchasing](http://www.codb.us/841/Purchasing). There is no charge for downloading Bid Documents. The Bid Documents and all other Contract Documents, including Drawings and Technical Specifications if applicable, are also on file at the Daytona Beach Purchasing Division, 301 S. Ridgewood Avenue, Room 146, Daytona Beach, Florida, 32114. A complete set of these Documents may be obtained upon payment of \$75, NON-REFUNDABLE. Checks must be made payable to the City of Daytona Beach, Florida. All inquiries and checks pertaining to this project which are mailed should be directed to Post Office Box 2451, Daytona Beach, Florida 32115-2451.

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

**A NON-MANDATORY PRE-BID CONFERENCE** will be held at the Daytona Beach Utilities Conference Room, 125 Basin Street, Suite 130, Daytona Beach, Florida 32114, on 1/9/2020 at 3:00 PM. Interested contractors are *urged* to attend.

**The successful contractor** will be required to furnish separate 100% Performance and Payment Bonds unless the Contract price is less than \$100,000.

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

**Bids may be held** by the City for a period not to exceed 60 days from the date of opening of bids for the purpose of reviewing the bid and investigating the qualifications of BIDDERS prior to awarding the contract.

By: KIRK ZIMMERMAN, CPPB  
CITY OF DAYTONA BEACH  
Issue Date: January 2, 2020

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**3. SIGNING THE BID.** The Bid Proposal Letter, the Bid Schedule and all other Forms and documents requiring Bidder's signature must contain the original signature of an individual authorized to bind the Bidder. The signature must be located in the space(s) marked for the Bidder's signature. In addition, the person signing the Bid must also sign all of the other Forms to be submitted.

Electronic signatures will not be accepted.

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

No oral clarification or interpretation will be binding.

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

The Purchasing Agent will make reasonable efforts to notify all potential BIDDERS of the issuance of an Addendum. The Purchasing Agent will also post Addenda on the Purchasing Division's web page, [www.codb.us/841/Purchasing](http://www.codb.us/841/Purchasing).

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

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

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

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

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

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

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

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

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

**10. DISQUALIFICATION OF BIDDERS.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

A link to the Code of Ordinances is available on the City's web site, [www.codb.us/841/Purchasing](http://www.codb.us/841/Purchasing).

**19. LOCAL PREFERENCE.** The Purchasing Code, Chapter 30, Code of the City of Daytona Beach provides for a preference to local vendors whenever the application of such a preference is reasonable in light of the dollar-value of proposals received in relation to such expenditures.

As used in City Code, the term, "local vendor" means a person or business entity which has maintained a permanent place of business with full-time employees within the city limits of the City of Daytona Beach for a minimum of six months prior to the date bids or proposals were received for the purchase or contract at issue, which generally provides from such permanent place of business the kinds of goods or services solicited, and which at the time of the solicitation fully complies with state and local laws, including City zoning and licensing ordinances.

Pursuant to City Code, if the lowest responsive bid is submitted by a non-local vendor, and a bid submitted by a local vendor is within 10% of the lowest bid, then these two vendors will each have the opportunity to submit a best and final bid equal to or lower than the amount of the lowest bid within five working days after bid opening. The bid will be awarded to the BIDDER submitting the lowest responsive bid or final bid. In case of a tie between a local vendor and a non-local vendor, the bid will be awarded to the local vendor.

If the Bidder intends to qualify as a local vendor, the Bidder must complete and sign the Local Vendor affidavit and submit it as part of the Bid. A Bidder who fails to properly complete and sign this affidavit or submit it with the Bid, will not further considered for local preference.

If the Bidder submits a properly completed Local Vendor affidavit as part of its Bid, the City reserves the right to verify that the Bidder meets the definition of Local Vendor, including by requiring the Bidder to supply additional documentation. In all instances, the City will be the final arbiter as to whether the Bidder qualifies for local preference.

With certain exceptions, application of local preference is discretionary. For more information on how the Local Preference may apply, see the Purchasing Code.

**20. IDENTICAL TIE BIDS.** If there are two or more low responsive bids from responsible BIDDERS that are identical in price and other evaluation criteria, the tie will be awarded to the following in order of preference: a) the BIDDER qualifying for local preference under Code 30-86; b) the BIDDER in compliance with the drug free workplace certification requirements set forth in Florida Statutes 287.087; or c) the most responsible BIDDER as defined under the City Code 30-82 (9)(c).

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

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

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

**23. CITY'S PROJECT-SPECIFIC CONSTRUCTION CONTRACT FORM.** The City's contract form for project specific construction projects, which is included in this solicitation, contains additional terms and conditions, including indemnification and insurance requirements, completion deadlines, and liquidated damages, that the Bidder should review prior to submitting the Bid. The City reserves the right to make minor changes to the form contract prior to execution by the successful BIDDER to correct errors, make other minor formatting changes, or for legal sufficiency. The City will provide the successful BIDDER the final contract for execution.

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

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

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

A. A fully-executed contract, using the form provided with or referenced by the notice of intent to award.

B. Proof of insurance, in accordance with the requirements of the Contract. See the Contract form for more information regarding insurance requirements.

C. Performance Security, as further described below, in an amount equal to 100% of the Contract Price.

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



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

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

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

## **SPECIAL INSTRUCTIONS**

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

The bond must be in the form provided by the City and must be accompanied by sufficient evidence of the authority of the issuing agent. Attorneys-in-fact who sign bonds or other surety instruments must attach with each bond or Surety instrument a certified copy of their power of attorney. The bonds must also comply with the requirements of F.S. § 255.05. The surety company executing the bonds must be must be rated A or better by A.M. Best Key Rating Guide, authorized to do business in the State of Florida, and must be listed by the United States Treasury Department Treasury Fiscal Service, Bureau of Government Financial Operations, Federal Register, Part V, latest revision, entitled: "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount.

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

The Successful Bidder must provide the required bond or alternative form of security and obtain City approval thereof prior to commencing construction.

In accordance with Section 255.05, the provisions of the General Conditions requiring CONTRACTOR to submit proof of payment of CONTRACTOR's subcontractors and suppliers as a condition of making a required payment are superseded.

**SI 2. BASIS OF AWARD.** In determining the "lowest responsive bid" as that term is used in Section 30-82(8) of the City's Purchasing Code, the City will review the total cost of the Base Bid, as adjusted by any Additive and/or Deductive Alternates that the City, in its sole discretion, decides to include in the Contract.

**SI 3. ASBESTOS MATERIALS.** Should Asbestos Materials be found the CONTRACTOR must follow asbestos removal work in compliance with all Legal Requirements, as defined in the General Conditions, including specifically those Legal Requirements applicable to asbestos materials, including the Department of Environmental Protection's asbestos requirements, 40 CFR Part 61, Subpart M, and OSHA Section 29 CFR 1926.38. Additionally, the CONTRACTOR is responsible for properly licensed and/or certified for asbestos removal as required by Legal Requirements.

**SI 4. CONTRACTOR RESPONSIBILITIES.** The CONTRACTOR will review the site conditions, review the Bid Documents, verify the Summary of Quantities and Bid Schedule, and the inclusion of all items and costs necessary to complete the work and submit a completed and responsive Bid. In reviewing the documents, the CONTRACTOR will notify the OWNER of any questionable items prior to the submission of Bids. The CONTRACTOR shall maintain access to all businesses and homes along the project during construction activities.

**SI 5. MINIMUM FINANCIAL QUALIFICATIONS.** The BIDDER submitting a Bid for this project must be a Certified General CONTRACTOR, certified in the State of Florida and the City of Daytona Beach as necessary to perform the required construction and hold the following criteria:

1. Has been in business for a minimum of five (5) years.

2. BIDDER must provide documentation acceptable to the City that exhibits financial strength and ability to perform on this Contract upon request after bid opening.

**SI 6. MINIMUM CONSTRUCTION EXPERIENCE QUALIFICATIONS.** The Bid requires that the BIDDER has sufficient experience in similar construction projects. This Special Instruction sets forth certain Minimum Construction Experience Qualifications (“Minimum Qualifications”) that must be met by the BIDDER, and describes the reference information that the BIDDER must submit as part of the Bid to allow the City to confirm that these Minimum Qualifications are met. The imposition of the Minimum Qualifications stated herein will not be deemed to restrict the City’s ability to determine whether the BIDDER is “responsible” as that term is referenced in Section 30-82(8) of Chapter 30 of the City of Daytona Beach Code of Ordinances.

1. Definitions.

“Task” means the following specific type of construction-related activity: WRF Process Upgrades, Clarifier Mechanism Installation

2. Who Must Meet the Minimum Qualifications?

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

3. What are the Minimum Qualifications?

The Minimum Qualifications are:

- A. WRF Process Upgrades:** Successful construction of at least three process related upgrades at an active water reclamation facility (WRF) which are similar in nature and have been successfully completed within the last five years. For the purposes of this bid, a project is considered to be similar in nature if it includes any of the following components: upgrades/replacement of equipment associated with a 5-stage Bardenpho treatment process; replacement of process air piping and/or replacement/installation of process air diffusers; rebuild/replacement of wastewater clarifier and associated mechanisms.
  
- B. Clarifier Mechanism Installation:** The BIDDER must also demonstrate familiarity with installation of clarifier units. The BIDDER shall provide project references showing successful installation of a minimum of three clarifier units within the past 10 years. At least one of the clarifier installations needs to be on a clarifier of 80-feet in diameter or greater. Please note that the requirement is based on the number of individual clarifier unit installations, not projects. If a single project included installation of clarifier units in three individual clarifiers, the requirement is considered to have been met.

A project will be considered counted toward meeting the applicable Minimum Qualification listed above only if, in addition the conditions referenced, both of the following conditions are met: (i) the project was undertaken, or the BIDDER’s of the project commenced, no earlier than 2014 (**A**) or 2009 (**B**), and (ii) the BIDDER performed at least 50% of the Task described for that project.

A project will be deemed “successful” only if: (i) the entire project, including the Task referenced, achieved final acceptance; or (ii) the Task referenced was deemed substantially complete (i.e., the Facility Owner accepted the equipment installed or other result of the Task for the Facility Owner’s beneficial use).

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

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

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

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

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

C. Each Project contained within the Reference Package will contain a sufficient number of references to show that the Minimum Qualification is being met. Three references must be provided to show that the Minimum Qualification is met. The Reference Package, on the following pages, should be used to show that the Minimum Qualifications are met.

The BIDDER is encouraged to provide a backup Contact Person in each instance in case the City is unable to reach the primary Contact Person.

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

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

## SUBMITTAL CHECKLIST

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

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

**BID PROPOSAL LETTER - ITB NO.: 20253**

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

Dear Mayor and Commissioners:

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

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

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

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

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

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

**BID PROPOSAL LETTER -- ITB No.: 20253, cont.**

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

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

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

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

\_\_\_\_\_

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

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

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

An individual person/sole proprietor

A Florida corporation/ limited liability company

A foreign corporation/limited liability company authorized to do business in Florida\*  
\_\_\_\_\_ (*specify state of incorporation/formation*)

A Florida limited partnership

A foreign limited partnership authorized to do business in Florida\*  
\_\_\_\_\_ (*specify state of incorporation / formation*)

A general partnership\*\*

A joint venture\*\*\*

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

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

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

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

**BID PROPOSAL LETTER -- ITB NO.: 20253, CONT.**

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

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

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

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

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

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

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



BID SCHEDULE - ITB NO. 20253  
**BETHUNE POINT WATER RECALMATION FACILITY –  
 PHASE I PROCESS UPGRADES**

Item No.	Item Description	Qty	Unit	Unit Price	Total
				(In Numerals)	(In Numerals)
1	Mobilization/Demobilization	1	LS	\$	\$
2	Diffused Air System - Aeration Tank No. 2	1	LS	\$	\$
3	Diffused Air System - Aeration Tank No. 3	1	LS	\$	\$
4	Gasket 1A Replacement	3	EA	\$	\$
5	Gasket 1B Replacement	3	EA	\$	\$
6	Gasket 2A Replacement	2	EA	\$	\$
7	Gasket 2B Replacement	2	EA	\$	\$
8	Gasket 3A Replacement	1	EA	\$	\$
9	Gasket 3B Replacement	1	EA	\$	\$
10	Clarifiers No. 1, 2 & 4 Upgrades	1	LS	\$	\$
				<b>Total Base Bid</b>	\$
Diffused Air Delivery System Circle Supplier:    -SSI Aeration          -Aquarius          -Sanitaire					

TOTAL BID PROPOSAL: \$ \_\_\_\_\_  
*(state numerically only)*

Submitted by:

Contact Name: (signature)	Contact Name: (printed)
Vendor Name:	Phone:
Address:	Email:

**NONCOLLUSION AFFIDAVIT OF PRIME BIDDER**

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

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

(1) He is \_\_\_\_\_ of \_\_\_\_\_, the Bidder that has submitted the attached Bid;

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Daytona Beach, FL (Local Public Agency) or any person interested in the proposed Contract;

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

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

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

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

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

Subscribed and sworn to before me

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

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

## DRUG-FREE WORKPLACE CERTIFICATION

**IDENTICAL TIE BIDS:** - If there are two or more low responsive bids from responsible BIDDERS that are identical in price and other evaluation criteria, the tie will be awarded to the following in order of preference: a) the BIDDER qualifying for local preference under Code 30-86; b) the BIDDER in compliance with the drug free workplace certification requirements set forth in Florida Statutes 287.087; or c) the most responsible BIDDER as defined under the City Code 30-82 (9)(c).

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

(1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

(2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.

(3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in section (1), above.

(4) In the statement specified in section (1), above, notify the employees that, as a condition of working on the commodities or contractual services that are underbid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or *nolo contendere* to, any violation occurring in the workplace no later than five days after such conviction.

(5) Impose sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

(6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

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

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

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

**AFFIDAVIT ON PUBLIC ENTITY CRIMES**

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

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

This sworn statement is submitted to the City of Daytona Beach

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

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

is \_\_\_\_\_

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

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

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

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

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

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

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

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

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

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

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

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

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

(Notary Seal)

**LOCAL VENDOR AFFIDAVIT**

*Complete and submit this form ONLY if you qualify for local preference as provided in the City of Daytona Beach Purchasing Code.*

*A copy of the Bidder's Daytona Beach Business Tax Receipt must be submitted with this Affidavit.*

NAME OF BIDDER: \_\_\_\_\_

LOCAL BUSINESS ADDRESS *(street address being used to claim Local Preference, including zip code):*

\_\_\_\_\_

The undersigned certifies under penalty of perjury each of the following:

The Local Business Address has continuously been used as a Permanent Place of Business with at least one full-time employee since \_\_\_\_\_.  
*(Insert date)*

The Local Business Address has consistently offered or provided the goods or services being solicited by the City of Daytona Beach during the time referenced above.

The Local Business Address has not been established with the sole purpose of obtaining the advantages that may be granted pursuant to the Local Preference provisions of the City of Daytona Beach Purchasing Code.

\_\_\_\_\_  
Signature *(Must be same person as person signing the Bid Proposal)*

\_\_\_\_\_  
Print Name/Title

Subscribed and sworn to before me

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

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

**The City of Daytona Beach reserves authority to require a copy of the corporate charter, corporate income tax filing return, and any other documents(s) to evaluate the Bidder's Local Preference claim.**

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

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

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

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

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

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

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

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

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

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

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

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

has been named Minority and Women Owned Business Enterprise Officer for

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

Company

Corporation

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

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

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

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

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

\_\_\_\_\_



# **REFERENCE PACKAGE**

## **MINIMUM QUALIFICATIONS OF PROSPECTIVE BIDDER**

**CITY CONTRACT NUMBER:**

---

**PROJECT TITLE: Bethune Point WRF Process Upgrades – Phase I**

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

**CONTRACTOR FIRM NAME:**

---

**BUSINESS ADDRESS:**

---

**CITY, STATE, ZIP CODE:**

---

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

**EMAIL ADDRESS:**

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**LIST OF SIGNIFICANT TASK SUBCONTRACTORS**

**Task: WRF Process Upgrades**

Name of Firm(s):

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**TASK: WRF Process Upgrades**

**Reference No. 1**

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

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

**Location of Project** \_\_\_\_\_

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

**Length of Project:** \_\_\_\_\_

**Project Components:**

	<b>Yes</b>	<b>No</b>
a. Improvements completed at active WRF?	<input type="checkbox"/>	<input type="checkbox"/>
b. Upgrades/replacement of 5-stage Bardenpho equipment?	<input type="checkbox"/>	<input type="checkbox"/>
c. Replacement of process air piping?	<input type="checkbox"/>	<input type="checkbox"/>
d. Replacement/installation of process air diffusers?	<input type="checkbox"/>	<input type="checkbox"/>
e. Rebuild/replacement of wastewater clarifier and associated mechanisms?	<input type="checkbox"/>	<input type="checkbox"/>
- If replacement, was new installation Ovivo USA Spiral Blade style mechanism?	<input type="checkbox"/>	<input type="checkbox"/>

**Dates Work was performed:** \_\_\_\_\_

**Work Completion:**

- a. Was project completed no earlier than 2014 (Yes/No) \_\_\_\_\_
- b. Did the Bidder perform at least 50% of the work described for that project? (Yes/No) \_\_\_\_\_
- c. Did project achieve final acceptance? (Yes/No) \_\_\_\_\_ or, was the project deemed substantially complete and available for beneficial use by the Facility Owner? (Yes/No) \_\_\_\_\_

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

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

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

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

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

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

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

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

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

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

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

**TASK: WRF Process Upgrades**

**Reference No. 2**

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

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

**Location of Project** \_\_\_\_\_

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

**Length of Project:** \_\_\_\_\_

**Project Components:**

	<b>Yes</b>	<b>No</b>
a. Improvements completed at active WRF?	<input type="checkbox"/>	<input type="checkbox"/>
b. Upgrades/replacement of 5-stage Bardenpho equipment?	<input type="checkbox"/>	<input type="checkbox"/>
c. Replacement of process air piping?	<input type="checkbox"/>	<input type="checkbox"/>
d. Replacement/installation of process air diffusers?	<input type="checkbox"/>	<input type="checkbox"/>
e. Rebuild/replacement of wastewater clarifier and associated mechanisms?	<input type="checkbox"/>	<input type="checkbox"/>
- If replacement, was new installation Ovivo USA Spiral Blade style mechanism?	<input type="checkbox"/>	<input type="checkbox"/>

**Dates Work was performed:** \_\_\_\_\_

**Work Completion:**

- a. Was project completed no earlier than 2014 (Yes/No) \_\_\_\_\_
- b. Did the Bidder perform at least 50% of the work described for that project? (Yes/No) \_\_\_\_\_
- c. Did project achieve final acceptance? (Yes/No) \_\_\_\_\_ or, was the project deemed substantially complete and available for beneficial use by the Facility Owner? (Yes/No) \_\_\_\_\_

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

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

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

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

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

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

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

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

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

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

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

**TASK: WRF Process Upgrades**

**Reference No. 3**

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

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

**Location of Project** \_\_\_\_\_

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

**Length of Project:** \_\_\_\_\_

**Project Components:**

	<b>Yes</b>	<b>No</b>
a. Improvements completed at active WRF?	<input type="checkbox"/>	<input type="checkbox"/>
b. Upgrades/replacement of 5-stage Bardenpho equipment?	<input type="checkbox"/>	<input type="checkbox"/>
c. Replacement of process air piping?	<input type="checkbox"/>	<input type="checkbox"/>
d. Replacement/installation of process air diffusers?	<input type="checkbox"/>	<input type="checkbox"/>
e. Rebuild/replacement of wastewater clarifier and associated mechanisms?	<input type="checkbox"/>	<input type="checkbox"/>
- If replacement, was new installation Ovivo USA Spiral Blade style mechanism?	<input type="checkbox"/>	<input type="checkbox"/>

**Dates Work was performed:** \_\_\_\_\_

**Work Completion:**

- a. Was project completed no earlier than 2014 (Yes/No) \_\_\_\_\_
- b. Did the Bidder perform at least 50% of the work described for that project? (Yes/No) \_\_\_\_\_
- c. Did project achieve final acceptance? (Yes/No) \_\_\_\_\_ or, was the project deemed substantially complete and available for beneficial use by the Facility Owner? (Yes/No) \_\_\_\_\_

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

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

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

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

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

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

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

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

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

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

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

**TASK: Clarifier Mechanism Installations**

**Reference No. 1**

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

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

**Location of Project** \_\_\_\_\_

**Manufacturer of Clarifier Installed** \_\_\_\_\_

**Diameter of Clarifier** \_\_\_\_\_

**Type of Clarifier Mechanism Installed:** \_\_\_\_\_

**Number of Clarifier Mechanisms Installed:** \_\_\_\_\_

**Dates Work was performed:** \_\_\_\_\_

**Work Completion:**

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

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

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

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

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

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

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

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

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

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

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

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

**TASK: Clarifier Mechanism Installations**

*(\*\*ONLY NEEDED IF NUMBER OF CLARIFIERS ON REFERENCE NO.1 IS LESS THAN THREE AND/OR REFERENCE NO. 1 DOES NOT INCLUDE 80-FOOT DIAMETER INSTALL \*\*)*

**Reference No. 2**

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

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

**Location of Project** \_\_\_\_\_

**Manufacturer of Clarifier Installed** \_\_\_\_\_

**Diameter of Clarifier** \_\_\_\_\_

**Type of Clarifier Mechanism Installed:** \_\_\_\_\_

**Number of Clarifier Mechanisms Installed:** \_\_\_\_\_

**Dates Work was performed:** \_\_\_\_\_

**Work Completion:**

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

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

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

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

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

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

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

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

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

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

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

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

**TASK: Clarifier Mechanism Installations**

**(\*\*ONLY NEEDED IF NUMBER OF CLARIFIERS ON REFERENCE NO.1 AND NO.2 IS LESS THAN THREE AND/OR REFERENCE NO.1 AND NO.2 DOES NOT INCLUDE 80-FOOT DIAMETER INSTALL\*\*)**

**Reference No. 3**

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

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

**Location of Project** \_\_\_\_\_

**Manufacturer of Clarifier Installed** \_\_\_\_\_

**Diameter of Clarifier** \_\_\_\_\_

**Type of Clarifier Mechanism Installed:** \_\_\_\_\_

**Number of Clarifier Mechanisms Installed:** \_\_\_\_\_

**Dates Work was performed:** \_\_\_\_\_

**Work Completion:**

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

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

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

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

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

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

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

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

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

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

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

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



**DRAFT**  
**PROJECT-SPECIFIC CONSTRUCTION CONTRACT**  
**ITB 20253**

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

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

**ARTICLE I. SCOPE OF WORK**

The CONTRACTOR will, at its sole cost and expense, provide, perform, and complete the construction project commonly known as "BETHUNE POINT WRF - PHASE I PROCESS UPGRADES" and more fully described in the Contract Documents, hereinafter the "Work".

**ARTICLE II. CONTRACT DOCUMENTS**

The Contract Documents are further described in the General Conditions, and if applicable the Supplemental General Conditions. In addition, the Plans, dated 12/2/2019 and referenced herein are the plans or drawings prepared by Eric Smith, P.E. (the "Engineer/Architect" or "E/A"), provided or made available with the CITY's Invitation to Bid, as amended by any addenda to the bid documents, are a part of the Contract Documents. These Plans are not physically attached hereto but are incorporated herein by reference. CONTRACTOR acknowledges receipt of all such Plans.

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

**ARTICLE III. COMMENCEMENT AND COMPLETION**

The CITY and the CONTRACTOR mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents. To that end, the CONTRACTOR will commence the Work not later than the Commencement Date set forth in the General Conditions, and will diligently and continuously prosecute the Work at such a rate, and with sufficient forces as will allow the CONTRACTOR to achieve Substantial Completion within **270** days after the Commencement Date and Final Completion within **300** days after the Commencement Date, subject only to any adjustments in the Contract Time that may be authorized by Change Orders properly issued in accordance with the Contract Documents. In executing this Contract, CONTRACTOR affirms that the time set for completion is reasonable.

The CITY will suffer financial loss if Final Completion of the Work is not achieved within the Contract Time. Accordingly, and in lieu of actual damages or proof thereof, if CONTRACTOR fails to meet these deadlines, CONTRACTOR will be liable to the CITY for liquidated damages as follows:

In the amount of **\$570** for each and every day of unexcused delay in achieving Substantial Completion; and

In the amount of **\$285** for each and every day of unexcused delay from the date that Substantial Completion is achieved until Final Completion is achieved.

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

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

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

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

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

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

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

A. CONTRACTOR shall indemnify and hold harmless the City of Daytona Beach, its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the construction contract. This indemnification agreement is separate and apart from, and in no way limited by, any insurance provided pursuant to this agreement or otherwise.

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

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

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

## ARTICLE VII. INSURANCE

### A. Required Insurance.

CONTRACTOR will purchase and maintain, at its own expense, the following types and amounts of insurance, primary and non-contributory with the CITY's own insurance, in form and companies satisfactory to the CITY. The City shall be exempt from, and in no way liable for, any sums of money that may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of the Contractor or sub-contractor providing such insurance.

a. Coverage and Amounts. Subject to paragraph (b), below, required coverages and amounts are as follows:

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

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

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

The limit of liability will be a combined single limit for bodily injury and property damage of no less than \$1,000,000 per occurrence. If insurance is provided with a general aggregate, the aggregate will be in an amount of no less than \$2,000,000. The Risk Manager may authorize lower liability limits for the automobile policy only, at the Risk Manager's sole discretion.

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

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

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

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

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

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

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

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

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

## ARTICLE VIII. NOTICES

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

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

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

If to the CITY:  
Attn: Shannon Ponitz  
Utilities Director  
The City of Daytona Beach  
125 Basin Street, Suite 201  
Daytona Beach, FL 32114  
Fax: 386-671-8502

If to the CONTRACTOR:  
Attn: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Fax: \_\_\_\_\_

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

#### ARTICLE IX. DISPUTE RESOLUTION

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

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

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

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

## ARTICLE X. GENERAL PROVISIONS

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

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

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

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

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

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

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

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

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

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

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

**THE CITY OF DAYTONA BEACH**

**>CONTRACTOR**

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

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

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

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

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

Approved as to legal form:

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

# GENERAL CONDITIONS

## ARTICLE 1 – DEFINITIONS AND TERMS

### 1.1 Defined Terms.

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

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

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

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

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

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

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

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

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

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

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

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

*“Contract”* includes all Contract Documents.

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

“Specifications” means the Technical Provisions and Plans.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### 1.3 Use of Terms.

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

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

## ARTICLE 2 –ORGANIZATION AND INTENT OF CONTRACT

### 2.1 Interpreting the Contract.

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

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

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

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

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

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

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

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

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

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

**2.1.8 Other Interpretive Rules.**

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

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

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

## **2.2 Referenced Standards.**

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

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

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

## **ARTICLE 3 - PRELIMINARY MATTERS**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

### 5.1 Subsurface and Physical Conditions.

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

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

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

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

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

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

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

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

### **5.3 Hazardous Materials.**

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

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

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

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

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

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

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

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

## ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

### 6.1 General Responsibilities.

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

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

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

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

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

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

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

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

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

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

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

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

**6.3 Supervision and Superintendence.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## **6.8 Construction Operations.**

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

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



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

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

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

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

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

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

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

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

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

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

## **6.9 Legal Requirements.**

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

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

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

## **6.10 Taxes.**

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

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

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

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

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

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

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

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

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

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

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

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

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

**6.12 Safety and Protection.**

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

**6.12.1.1** The public;

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

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

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

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

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

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

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

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

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

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

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

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

## **6.13 Indemnification.**

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

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

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

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

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

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

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

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

**6.17 Financial Records.**

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

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

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

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

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

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

## **ARTICLE 7 - OTHER WORK**

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

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

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

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

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

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

## **ARTICLE 8 – WARRANTIES**

### **8.1 General Warranty.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**11.4.2** Inclusive dates of the delay;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## ARTICLE 12 – CHANGES

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

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

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

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

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

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

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

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

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

## ARTICLE 13 - CHANGE INSTRUMENTS

### 13.1 Introduction.

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

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

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

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

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

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

.1 Unit Prices as stated in the Bid Schedule.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### **14.3 Uncovering Work.**

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**15.2.1** The current approved Progress Schedule;

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

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

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

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

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

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

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

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

**15.3.1** Defective Work not remedied;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**15.7 Substantial Completion.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**16.2.1.1** Reasonable demobilization costs;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

***END OF GENERAL CONDITIONS SECTION***



**SECTION 00002**

**CERTIFICATION PAGE**

**PART 1 - GENERAL**

**1.01 PROJECT WORK SCOPE:**

The following Section(s) of the Specifications for the Issued for Bid Submittal for **BETHUNE POINT WRF – PHASE I PROCESS UPGRADES** project, dated December 2, 2019 were prepared under my direction and supervision.


**DIVISIONS 1 AND 11**

**Civil Engineer**

City of Daytona Beach  
Company Name

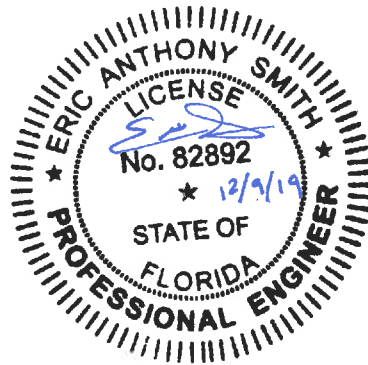
Eric A. Smith  
Print Name

125 Basin Street, Suite 100  
Address

  
Signature

Daytona Beach, FL 32115  
City, State, Zip

12/9/19  
Date



## **SECTION 01010-SUMMARY OF WORK**

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### **PART 1 - GENERAL**

#### **1.01 PROJECT WORK SCOPE:**

- A. The Work consists of providing all necessary labor, material, equipment, supervision, and permitting necessary to upgrade the diffused air delivery system in Aeration Tank No. 2 (AT-No. 2) and Aeration Tank No. 3 (AT-No. 3) and replace the clarifier mechanism within Clarifiers No. 1, 2, and 4 as depicted in the bid documents at the Bethune Point Water Reclamation Facility located at 1 Shady Place Ln., Daytona Beach, FL, 32115.
- B. Specific items included in the Work include, but are not limited to, the following:
1. Mobilization and Demobilization
  2. AT-No. 2 Upgrades
    - i. Remove and dispose existing diffused air delivery system. Extent of demolition shall include all air piping/diffuser assembly downstream of the SST-to-PVC transition, including transition coupling.
    - ii. Install new disc diffused air delivery system per manufacturer recommendations.
    - iii. Replace gaskets and filler material at air header flanges at locations called for on drawings.
    - iv. Provision of temporary air as necessary.
  3. AT-No. 3 Upgrades
    - i. Remove and dispose existing diffused air delivery system from Pass 3 of AT-No. 3. Extent of demolition shall include all air piping/diffuser assembly downstream of the SST-to-PVC transition, including transition coupling.
    - ii. Install new disc diffused air delivery system per manufacturer recommendations.
    - iii. Replace gaskets and filler material at air header flanges at locations called for on drawings.
    - iv. Provision of temporary air as necessary.
  4. Clarifiers No. 1, 2 and 4 Upgrades
    - i. Remove and dispose existing clarifier mechanisms within clarifiers. Extent of demolition shall include all internal components associated with the clarifier with the exception of the walkway. Note: concrete launder in Clarifier No. 4 to remain.
    - ii. Remove/replace grout from bottom of clarifiers as necessary.
    - iii. Install new spiral blade clarifier mechanisms and components per manufacturer recommendations.
    - iv. Electrical and Instrumentation work.
  5. Equipment training, startup, testing, placement into service
- C. Except as specifically noted otherwise, provide and pay for:

1. Insurance and bonds;
  2. Labor, materials, and equipment;
  3. Tools, equipment, and machinery required for construction;
  4. Utilities required for construction;
  5. Temporary facilities as necessary;
  6. Erosion and dust control measures;
  7. Equipment training, testing, and startup services;
  8. Other facilities and services necessary for proper execution and completion of the Work.
- D. OWNER will provide and pay for reclaimed water used for flushing, testing, and start-up activities.
- E. Comply with codes, ordinances, regulations, orders, and other legal requirements of public authorities having bearing on the performance of the Work.

## **PART 2 - MATERIALS AND EQUIPMENT**

### **2.01 OWNER FURNISHED EQUIPMENT:**

- A. The OWNER has purchased the clarifier equipment from Ovivo USA, LLC. OWNER will furnish CONTRACTOR with materials upon arrival. CONTRACTOR shall coordinate with the OWNER on the list of equipment purchased.
- B. CONTRACTOR's responsibility for OWNER Furnished equipment:
1. Receiving and unloading equipment/products at site.
  2. Promptly inspecting products jointly with the OWNER and recording shortages, and damaged or defective items.
  3. Handling products at site, including uncrating and storage.
  4. Protecting products from damage.
  5. Installing, including assembly, connections, adjustments, tests, and finish products in accordance with Contract Documents.
  6. Arrange for manufacturer's warranties, bonds, service and inspection.
  7. Providing operating oils, lubricants, and incidental materials required for complete installation.
  8. Repairing or replacing items damaged after receipt until date of Substantial Completion.

### **2.02 OWNER DIRECT PURCHASE EQUIPMENT:**

- A. The OWNER may direct purchase certain major equipment packages. CONTRACTOR should coordinate with OWNER on list of equipment the OWNER may elect to direct purchase.
- B. CONTRACTOR's responsibility for OWNER Direct Purchase equipment:

1. Deliver supplier's bill of materials to OWNER on behalf of OWNER.
2. Submit claims for transportation damage on behalf of OWNER.
3. Arrange for replacement of damaged, defective, or missing items on behalf of OWNER.
4. Arrange for manufacturer's warranties, bonds, service and inspection.
5. Designating delivery date for each OWNER Direct Purchase item.
6. Reviewing shop drawings, O&M manuals, product data, and samples.
7. Transmit all such submittals to OWNER for review and approval.
8. Submitting notification of discrepancies or anticipated problems.
9. Receiving and unloading equipment/products at site.
10. Promptly inspecting products jointly with the OWNER and recording shortages, and damaged or defective items.
11. Handling products at site, including uncrating and storage.
12. Protecting products from damage.
13. Installing, including assembly, connections, adjustments, tests, and finish products in accordance with Contract Documents.
14. Providing operating oils, lubricants, and incidental materials required for complete installation.
15. Repairing or replacing items damaged after receipt until date of Substantial Completion.

### **2.03 SALVAGED MATERIALS:**

- A. In the absence of special provisions to the Contract, salvaged materials, equipment or supplies that occur are the property of the OWNER and shall be cleaned and stored as directed by the OWNER.

## **PART 3 - EXECUTION**

### **3.01 WASTEWATER FACILITY OPERATION:**

- A. It is noted that the Work is to take place at an active treatment plant. As such, construction activities can not interfere with daily treatment operations. Any disruptions to the treatment process shall be discussed with the OWNER, a minimum of 14 days in advanced. At time of discussion, CONTRACTOR shall present to the OWNER a detailed plan of the facility disruption/outage, including but not limited to:
  1. Length of disruption/outage.
  2. Temporary measures taken to ensure treatment process continues to meet permit during outage.
  3. Drawings/narrative as needed.
  4. Detail on reversing disruption/outage.

Upon review, the OWNER has the sole authority to accept/reject the disruption/outage.

END OF SECTION

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## **SECTION 01014-MAINTENANCE OF OPERATIONS**

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### **PART 1 - GENERAL**

#### **1.01 GENERAL:**

- A. The intent of these specifications is to have the CONTRACTOR schedule and perform the Work in a manner such that the OWNER can keep existing facilities in continuous dependable operation. It is required as a part of this Contract that the CONTRACTOR adhere to the constraints listed in this Section.
- B. The CONTRACTOR shall:
  - 1. Keep existing facilities in operation unless otherwise specifically permitted in these specifications or approved by the OWNER in writing.
  - 2. Coordinate any system shutdowns with the OWNER and limit the shutdown periods to acceptable times.

#### **1.02 GENERAL CONSTRAINTS:**

- A. Any temporary work, facilities, roads, walks, protection of existing structures, piping, blind flanges, valves, equipment, etc. that may be required within the CONTRACTOR'S work limits to maintain continuous and dependable operation of existing systems shall be furnished by the CONTRACTOR at no extra cost to the OWNER.
- B. The CONTRACTOR shall schedule the Work in such a manner so that all existing systems are maintained in continuous operation. All short-term system or partial system shutdowns shall be approved in writing by the OWNER. If, in the opinion of the OWNER, a shutdown is not required in order for the CONTRACTOR to perform the Work, the CONTRACTOR shall utilize alternative methods to accomplish the Work. All shutdowns shall be coordinated with and scheduled at times suitable to the OWNER. OWNER shall be provided a minimum of 14-day notice of CONTRACTOR'S need for any system shutdown.
- C. Required shutdowns shall not begin until all materials are on-hand, pre-assembled, as possible, and ready for installation. At a time approved by the OWNER, the shutdown period will commence and the CONTRACTOR shall proceed with the Work continuously, start to finish, until the Work is completed and the system is tested, cleared for service, and ready for operation. If the CONTRACTOR completes all required Work before the specified shutdown period has ended the OWNER may immediately place the system back in service.
- D. The OWNER shall have the authority to order Work stopped or prohibited which would, in his opinion, unreasonably result in stopping or inhibiting the necessary functions of existing utilities.
- E. The OWNER reserves the right to cancel scheduled shutdowns if conditions warrant. Delays

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to the CONTRACTOR caused by cancellations will be considered in evaluating requests for time extension.

F. All facilities shall be tested and in operating condition before final tie-ins are made.

**1.03 SUBMITTALS:**

A. Submit detailed schedule of proposed testing.

**1.04 WORK SEQUENCE:**

A. The CONTRACTOR shall submit a proposed work sequence 14 days prior to the pre-construction meeting. See Section 01310 for detail of the schedule.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

01014-2

## **SECTION 01025 - MEASUREMENT AND PAYMENT**

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### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION**

- A. This Section includes specification for the measurement and payment of the various elements of the Work; with provisions applicable to lump sum prices, unit prices, and allowances, if applicable.
- B. In the case of conflict between this Section and the measurement methods specified in the individual technical Sections, the measurement methods in the technical specifications shall govern.
- C. The CONTRACTOR shall receive no payment for any portion of the work until it is installed. The only exception to this is payment for stored materials on site if the Contract provides for the payment of stored materials. Partial payment may be requested for items partially installed.
- D. The items listed in Article 5, refer to and are the same pay items listed in the Bid Proposal. They constitute all of the pay items for the completion of the Work. The Contract Price shall be deemed to fully compensate the CONTRACTOR for all direct and indirect costs of performing the work. All materials, labor, equipment, testing, overhead, profit, and incidentals required to perform the work identified on the drawings and in the specifications to the satisfaction of the OWNER shall be included in the bid items below. If the CONTRACTOR is unsure where a particular item of work shall be included, he/she shall contact the OWNER for clarification.

#### **1.02 RELATED PROVISIONS SPECIFIED ELSEWHERE**

- A. Payments to CONTRACTOR: Refer to General Conditions and Contract Agreement.
- B. Changes in Contract Price: General Conditions.

#### **1.03 LUMP SUM ITEMS**

- A. Lump Sum measurement will be for the entire item, unit of work, structure, or combination thereof, as specified and as indicated in the Bid Form. Measurement and payment for all bid items indicated as Lump Sums shall include the cost of all labor, materials and equipment necessary to furnish, install, clean, test, and place each bid item into operation; including permitting, general conditions, overhead and profit.
- B. Progress payments will be based on the Schedule of Values prepared by the CONTRACTOR and approved by the OWNER before acceptance of the first Application for Payment.



C. In order for the CONTRACTOR to request progress payments against Lump Sum items, CONTRACTOR shall provide a disaggregation or breakdown in sufficient measureable detail that is acceptable to the OWNER.

D. Measurement:

1. Measurement shall be based on the estimated percent complete of each item of Schedule of Values, as determined by the OWNER.

E. Payment:

1. Payment will be made at the lump sum price proportional to the completion percentages approved by the OWNER.

#### **1.04 UNIT PRICE ITEMS**

A. Quantity and measurement estimates stated in the Bid Form are estimates for bidding purposes only. Actual payments shall be based on actual quantities installed, in-place, as measured and/or verified by the OWNER.

B. Unless otherwise provided in the General Conditions, the bid unit prices shall be in effect throughout the contract duration, regardless of variances between the estimated quantities and the actual installed quantities.

C. The CONTRACTOR shall make no claim, nor receive any compensation, for anticipated profits, loss of profit, damages, or any extra payment due to any difference between the amounts of work actually completed, or materials or equipment furnished, and the estimated quantities.

D. Unless otherwise approved by the OWNER, any unit quantities exceeded may not be invoiced until the estimated quantity is increased by contract change order.

E. CONTRACTOR shall assist OWNER by providing necessary equipment, workers, and survey personnel as required to measure quantities.

F. Measurement:

1. Measurement for progress payment shall be made by, or approved by, the OWNER based on the estimated effective quantity installed. The effective quantity installed represents the actual units or quantities installed, adjusted for incomplete elements or components.
2. Unless otherwise provided for in the Bid Form unit price items are all-inclusive of all related work, direct and indirect, to provide a complete and functional item. For example, underground pipe installation would include trenching, shoring, dewatering, bedding, installation, backfill, testing, flushing, disinfection, and commissioning; including all labor, materials and equipment necessary to furnish, install, clean, test, and place into operation; including permitting, general conditions, overhead and profit.

3. The final measurement shall be based on actual quantities, jointly measured by CONTRACTOR and OWNER, complete, fully, tested and placed into service.

G. Payment:

1. Progress payments shall be in accordance with the contract documents based on estimated effective quantities installed, paid at the bid unit price.
2. The final payment shall be based on actual quantities, fully installed, tested and placed into service, paid at the bid unit price.
3. Payments to CONTRACTOR: Refer to General Conditions and Contract Agreement.
4. Changes in Contract Price: General Conditions.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

**3.01 CONTRACT - BASE BID**

A. Item No. 1 – Mobilization/Demobilization

1. Measurement

- i. Measurement of the work of Item No. 1 shall be on a lump sum basis.

2. Payment

- i. Payment to the CONTRACTOR of the total price of bid for Item No. 1 in the Bid Form will be made and shall fully compensate the CONTRACTOR for the mobilization of all equipment, materials, and manpower at the beginning of the project and demobilization upon project completion. The price shall be calculated as a maximum of 5-percent of the total of Items 2 – 10.

B. Item No. 2 – Diffused Air Delivery System: Aeration Tank No. 2

1. Measurement

- i. Measurement of the work of Item No. 2 shall be on a lump sum basis.

2. Payment

- i. Payment for the Diffused Air Delivery System for Aeration Tank No. 2 and appurtenances shall be made at the Contract lump sum price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with construction of new Diffused Air Delivery System for Aeration Tank No. 2 and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: demolition of the existing diffuser system in Aeration Tank

No. 2 beginning at, and including, the SST-to-PVC adapter on the existing drop leg along with all connected dispersion legs, diffusers, supports, and appurtenances within Aeration Tank No. 2; proper transport and disposal of all debris; furnish and install new SST coupling; furnish and install new diffused air delivery system per manufacturer recommendations; supplemental/temporary air, as necessary, to accomplish diffuser installation; dewatering; minor concrete repair, as required; removal of steel plate in Effluent Box No. 2; bypass pumping, as necessary. Progress payments will be made according to the General Conditions.

C. Item No. 3 – Diffused Air Delivery System: Aeration Tank No. 3

1. Measurement

- i. Measurement of the work of Item No. 3 shall be on a lump sum basis.

2. Payment

- i. Payment for the Diffused Air Delivery System for Aeration Tank No. 3 (Pass 3) and appurtenances shall be made at the Contract lump sum price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with construction of new Diffused Air Delivery System for Aeration Tank No. 3 (Pass 3) and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: demolition of the existing diffuser system in Aeration Tank No. 3 (Pass 3) beginning at, and including, the SST-to-PVC adapter on the existing drop leg along with all connected dispersion legs, diffusers, supports, and appurtenances within Aeration Tank No. 3 (Pass 3); proper transport and disposal of all debris; furnish and install new SST coupling; furnish and install new diffused air delivery system per manufacturer recommendations; supplemental/temporary air, as necessary, to accomplish diffuser installation; dewatering; minor concrete repair, as required. Progress payments will be made according to the General Conditions.

D. Item No. 4 – Gasket 1A Replacement

1. Measurement

- i. Measurement of the work of Item No. 4 shall be on a per unit basis.

2. Payment

- i. Payment for Gasket 1A Replacement and appurtenances shall be made at the Contract unit price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with replacement of the gasket(s) and any associated appurtenances not specifically identified in other bid items.

The work generally includes, but is not limited to: supplemental/temporary air, as necessary, to accomplish gasket replacement; removal and disposal of old gasket; replacement of gasket and fill material; support and protection of air piping during replacement; replacement of flange bolts/nuts as determined necessary. Progress payments will be made according to the General Conditions.

E. Item No. 5 – Gasket 1B Replacement

1. Measurement

- i. Measurement of the work of Item No. 5 shall be on a per unit basis.

2. Payment

- i. Payment for Gasket 1B Replacement and appurtenances shall be made at the Contract unit price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with replacement of the gasket(s) and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: supplemental/temporary air, as necessary, to accomplish gasket replacement; removal and disposal of old gasket; replacement of gasket and fill material; support and protection of air piping during replacement; replacement of flange bolts/nuts as determined necessary. Progress payments will be made according to the General Conditions.

F. Item No. 6 – Gasket 2A Replacement

1. Measurement

- i. Measurement of the work of Item No. 6 shall be on a per unit basis.

2. Payment

- i. Payment for Gasket 2A Replacement and appurtenances shall be made at the Contract unit price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with replacement of the gasket(s) and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: supplemental/temporary air, as necessary, to accomplish gasket replacement; removal and disposal of old gasket; replacement of gasket and fill material; support and protection of air piping during replacement; replacement of flange bolts/nuts as determined necessary. Progress payments will be made according to the General Conditions.

G. Item No. 7 – Gasket 2B Replacement

1. Measurement

- i. Measurement of the work of Item No. 7 shall be on a per unit basis.

2. Payment

- i. Payment for Gasket 2B Replacement and appurtenances shall be made at the Contract unit price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with replacement of the gasket(s) and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: supplemental/temporary air, as necessary, to accomplish gasket replacement; removal and disposal of old gasket; replacement of gasket and fill material; support and protection of air piping during replacement; replacement of flange bolts/nuts as determined necessary. Progress payments will be made according to the General Conditions.

H. Item No. 8 – Gasket 3A Replacement

1. Measurement

- i. Measurement of the work of Item No. 8 shall be on a per unit basis.

2. Payment

- i. Payment for Gasket 3A Replacement and appurtenances shall be made at the Contract unit price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with replacement of the gasket(s) and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: supplemental/temporary air, as necessary, to accomplish gasket replacement; removal and disposal of old gasket; replacement of gasket and fill material; support and protection of air piping during replacement; replacement of flange bolts/nuts as determined necessary. Progress payments will be made according to the General Conditions.

I. Item No. 9 – Gasket 3B Replacement

1. Measurement

- i. Measurement of the work of Item No. 9 shall be on a per unit basis.

2. Payment

- i. Payment for Gasket 3B Replacement and appurtenances shall be made at the Contract unit price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and

incidentals associated with replacement of the gasket(s) and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: supplemental/temporary air, as necessary, to accomplish gasket replacement; removal and disposal of old gasket; replacement of gasket and fill material; support and protection of air piping during replacement; replacement of flange bolts/nuts as determined necessary. Progress payments will be made according to the General Conditions.

J. Item No. 10 – Clarifiers No. 1, 2 & 4 Upgrades

1. Measurement

- i. Measurement of the work of Item No. 10 shall be on a lump sum basis.

2. Payment

- i. Payment for the Clarifier No. 1, 2 & 4 Upgrades and appurtenances shall be made at the Contract lump sum price, complete and in place, as specified and shown on the Contract Drawings. This payment shall constitute full compensation for all labor, materials, equipment, testing, training, and incidentals associated with construction of new upgrades to Clarifiers No. 1, 2 & 4 and any associated appurtenances not specifically identified in other bid items. The work generally includes, but is not limited to: demolition of the existing clarifier mechanisms and appurtenances as shown on the Contract Drawings; proper transport and disposal of all debris; installation of Owner Furnished clarifier mechanisms per manufacturer recommendations; dewatering, minor concrete repair, as necessary, electrical and instrumentation. Progress payments will be made according to the General Conditions.

END OF SECTION

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## **SECTION 01040 - COORDINATION**

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### **PART 1 - GENERAL**

#### **1.01 GENERAL:**

A. The CONTRACTOR shall provide for the complete coordination of the construction efforts. This shall include, but not necessarily be limited to, coordination of the following:

1. The work of subcontractors;
2. The flow of material and equipment from suppliers;
3. The effort of equipment manufacturers during test and checkout;
4. Interrelated work with public utilities companies;
5. The interrelated work with the OWNER where tie-ins to existing facilities are required;
6. The effort of independent testing agencies.

The CONTRACTOR shall be allowed the widest practicable latitude in establishing his plan of work. CONTRACTOR shall submit a plan of work to OWNER.

### **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

### **PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01050 - FIELD ENGINEERING**

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### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION OF WORK:**

- A. CONTRACTOR shall provide and pay for all field engineering service required for the project. Such work shall include survey work to establish lines and levels and to locate and lay out site improvements, structures, and controlling lines and levels required for the construction of the work. Also included are such Engineering services as are specified or required to execute CONTRACTOR'S construction methods. Engineers and Surveyors shall be licensed professionals under the laws of the state where the project is located.

#### **1.02 GRADES, LINES AND LEVELS:**

- A. Existing basic horizontal and vertical control points for the project are those designated on the DRAWINGS. CONTRACTOR shall locate and protect control points prior to starting site work and shall preserve all permanent reference points during construction. In working near any permanent property corners or reference markers, CONTRACTOR shall use care not to remove or disturb any such markers. In the event that markers must be removed or are disturbed due to proximity of the construction work, CONTRACTOR shall have them referenced and reset by a Land Surveyor qualified under the laws of the state of the project.

#### **1.03 LAYOUT DATA:**

- A. CONTRACTOR shall lay out the work at the location and to the lines and grades shown on the DRAWINGS. Survey notes indicating the information and measurements used in establishing locations and grades shall be kept in notebooks and furnished to ENGINEER with the record drawings for the project.
- B. For all pipelines which have grades or elevations required, for all pipelines which are indicated to be installed to clear future construction and for all pipelines for which profile elevations are shown, CONTRACTOR shall prepare cut sheets and lay out lines at the locations shown or as directed. He shall verify lengths between junction points shown on the DRAWINGS, and verify the location and elevations of possible conflicts.

### **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

### **PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01200 - PROJECT MEETINGS**

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### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION OF WORK:**

- A. Project meetings shall be scheduled on a bi-weekly basis, or as needed throughout the progress of the work. OWNER shall be responsible for scheduling the meetings, preparing the agenda, distributing written notice of each meeting not less than four days in advance of the meeting date, making physical arrangements for the meeting, presiding at the meeting, recording the minutes (including all significant proceedings and decisions), and reproducing and distributing copies of the minutes to all participants and all parties affected by decisions made.
- B. Representatives attending the meetings shall be qualified and authorized to act on behalf of the entity that they represent.

#### **1.02 PRE-CONSTRUCTION CONFERENCE:**

- A. A pre-construction conference will be held prior to beginning any work under the Contract. OWNER will schedule the conference in consultation with CONTRACTOR.
- B. CONTRACTOR shall be ready to submit his anticipated progress schedule, a preliminary schedule of shop drawing submissions, and a preliminary schedule of values of work, and any other documents as required by the General Conditions.
- C. The pre-construction conference will be attended by representatives of OWNER, CONTRACTOR and such of CONTRACTOR'S subcontractors as he wishes to attend.

#### **1.03 PROGRESS MEETINGS:**

- A. Regular progress meetings shall be held during the construction period. At these meetings the CONTRACTOR shall submit any updated progress schedules, advise OWNER of any anticipated delays or problems in the progress of the work, and discuss any problems or events which affect the progress.

### **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

### **PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01300 - SUBMITTALS**

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### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION OF REQUIREMENTS**

- A. The type of submittal requirements specified in this section include but are not limited to the following:
1. Progress Schedules and Reports
  2. Material and Equipment
    - i. Shop Drawings
    - ii. Manufacturer's Data
    - iii. Samples
  3. General Submittal Requirements
  4. Shop Drawings Required
  5. Certificate of Compliance
  6. Network Analysis
- B. Submittals shall be clear and legible, printed or typed. Submittals received that are not so, shall be returned to be resubmitted when in legible form.

#### **1.02 PROGRESS SCHEDULES AND REPORTS**

- A. The CONTRACTOR shall prepare and submit a monthly progress report. Progress schedules as required by the General Conditions shall be prepared in the form of a horizontal bar chart unless other format or use of a network analysis system is required. A separate horizontal bar shall be provided for each trade or operation. The first work day of each week shall be identified on the horizontal time scale. Scale and spacing will be such as to allow space for notations and revisions. The report shall indicate the progress at the date of submission of each activity shown on his progress schedule. It shall show changes occurring since previous submissions, activities modified since previous submissions, and revised projections of progress and completion. The submittal shall include a narrative report to define: problem areas, anticipated delays, and the impact on the schedule, and corrective action recommended and its effect.
- B. Schedules shall show the complete sequence of construction by activity with dates for the beginning and completion of each major element of construction. Projected percentage of completion for each item as of the first day of each month shall be shown.
- C. Revised schedules shall be submitted periodically as changes become apparent.

### 1.03 MATERIALS AND EQUIPMENT DATA (Shop Drawings, Manufacturer's Data and Samples)

- A. Schedules of Shop Drawing submittals shall note any items which require critical timing for maintaining delivery or construction schedules.
- B. Material and equipment data submitted for substitutions shall be handled as specified in Section 01640 - Substitutions and Product Options.
- C. **Definitions.** Work-related submittals of this section are categorized for convenience as follows:
  - 1. Shop drawings include specially-prepared technical data for this project, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to several projects.
  - 2. Material and Equipment data includes standard printed information on materials, equipment and systems; not specially-prepared for this project, other than the designation of selections from among available choices printed in the information.
  - 3. Samples include both fabricated and unfabricated physical examples of materials, equipment and units of work; both as complete units and as smaller portions of units of work; either for limited visual inspection or, where indicated, for more detailed testing and analysis.
    - i. Mock-ups are a special form of samples, which are too large or otherwise inconvenient for handling in specified manner for transmittal of sample submittals.
  - 4. Miscellaneous submittals related directly to the work (non-administrative) include warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standard, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the work and not processed as shop drawings, product data or samples.

### 1.04 GENERAL SUBMITTAL REQUIREMENTS

- A. Where stated in individual sections, CONTRACTOR shall submit electronic copies of Shop Drawings which are to be reviewed by OWNER. Upon completion of OWNER's review, the Shop Drawing will be returned to CONTRACTOR.
- B. **Shop Drawings Required.** Shop Drawings shall be submitted for only those items listed in the individual Sections of the Specifications. Shop Drawings not required by the



Specifications or not having been completely reviewed and corrected by CONTRACTOR will be returned without review or comment.

- C. ***Certificates of Compliance.*** Certificate of Compliance required to be furnished by CONTRACTOR or Supplier shall be in the form of an affidavit attesting that the materials, equipment or Work covered by the Certificate conform to the specified requirements, that all tests specified or required have been performed and that all test requirements have been met. Certificates shall be subscribed to and executed before a person authorized to administer oaths.

## **1.05 NETWORK ANALYSIS**

- A. The Critical Path Method (CPM) or other analysis system satisfactory to the OWNER shall be used to control the time fixed for completion of the project. The project shall be done in accordance with CPM planning and scheduling. After award of the contract, the CONTRACTOR shall develop a comprehensive network diagram covering the major portions of the work and trades. The diagram shall indicate the priority and inter-dependence of all segments of the work. Each segment shall be reviewed with the OWNER to insure reasonably accurate time durations. Time units shall be in days and one day shall be the smallest time unit shown. It shall be the CONTRACTOR's responsibility to insure that all of the work is described and that the diagram correctly represents the sequence in which he plans to do his work and the time in which he expects to do it. Upon completion of the network diagram, the CONTRACTOR shall have his data processed as required to establish the critical work path and forecast the duration of the work.
- B. During the project, the effect of any change orders shall be evaluated and compared with the original plan and schedule to establish the effect of such changes on the scheduled project completion time.
- C. No later than 30 days after the Notice to Proceed is issued, the CONTRACTOR shall submit his preliminary diagram covering the entire project for review by the OWNER.

## **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

## **PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01310 - CONSTRUCTION SCHEDULES**

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### **PART 1 - GENERAL**

#### **1.01 GENERAL:**

- A. Provide construction schedule which conforms to the requirements below, unless otherwise approved by OWNER.
- B. Update schedules every month unless otherwise specified or directed by OWNER.

#### **1.02 CONTENT:**

- A. Shop Drawing submittal dates and required approval dates.
- B. Product delivery dates.
- C. Factory and field testing dates.
- D. Dates for beginning and completing each phase of the Work by activity and by trades.

#### **1.03 FORMAT:**

- A. Type: Horizontal bar chart.
- B. Sheet Size: 8 1/2-inches by 11-inches.
- C. Time Scale: Indicate first date in each work week.
- D. Organization:
  - 1. Group Shop Drawing submittals and reviews into a separate sub-schedule.
  - 2. Group product deliveries into a separate sub-schedule.
  - 3. Group construction work into a separate sub-schedule by activity.
  - 4. Group critical activities which dictate the rate of progress into a separate sub-schedule.
  - 5. Organize each sub-schedule by Specification Section number.
- E. Activity Designations: Show title and related Specification Section number.

#### **1.4 SUBMITTALS:**

- A. Submit initial schedule at least 20 days prior to submitting first application for a progress payment but no later than 15 days after date of execution of Agreement.
- B. Submit updated schedules at progress meetings. If a schedule remains unchanged from one period to the next, submit a written notice to that effect.
- C. Make submittals to OWNER.
- D. Unless otherwise specified, submit two copies of each schedule. One copy will be reviewed by the OWNER and returned. The other copy will be retained by the OWNER.
- E. Attach a letter of transmittal to each submittal and include the following information in the letter:
  - 1. A listing of items which have changed since the last submittal.
  - 2. Discussion of problems causing delays, anticipated length of delays, and proposed countermeasures.

#### **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

#### **PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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**SECTION 01340 - SHOP DRAWING PROCEDURES**

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**PART 1 - GENERAL**

**1.01 GENERAL REQUIREMENTS:**

- A. Shop Drawing procedures shall conform to requirements of General Conditions, Section 01300, and as described in this Section.

**1.02 PROCEDURE:**

- A. Submit Shop Drawings to: OWNER.
- B. A letter of transmittal shall accompany each submittal. If data for more than one Section of the Specifications is submitted, a separate transmittal letter shall accompany the data submitted for each Section.
- C. At the beginning of each letter of transmittal provide a reference heading indicating the following:
  - 1. OWNER'S Name
  - 2. Project Name
  - 3. Contract Number
  - 4. Transmittal Number
  - 5. Section Number
- D. If a Shop Drawing deviates from the requirements of the Contract Documents, CONTRACTOR shall specifically note each variation in his letter of transmittal.
- E. All Shop Drawings submitted for approval shall have a title block with complete identifying information satisfactory to OWNER.
- F. All Shop Drawings submitted shall bear the stamp of approval and signature of CONTRACTOR as evidence that they have been reviewed by CONTRACTOR. Submittals without this stamp of approval will not be reviewed by OWNER and will be returned to CONTRACTOR. CONTRACTOR'S stamp shall contain the following minimum information:

Project Name/ CODB Contract No.: \_\_\_\_\_

CONTRACTOR'S Name: \_\_\_\_\_

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

-----Reference-----

Item: \_\_\_\_\_

Specifications: \_\_\_\_\_

Section: \_\_\_\_\_

Page No.: \_\_\_\_\_

Paragraph No.: \_\_\_\_\_

Drawing No.: \_\_\_\_\_ of \_\_\_\_\_

Location: \_\_\_\_\_

Submittal No.: \_\_\_\_\_

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

- G. A number shall be assigned to each submittal by CONTRACTOR starting with No. 1 and thence numbered consecutively. Re-submittals shall be identified by the original submittal number followed by the suffix "A" for the first re-submittal, the suffix "B" for the second re-submittal, etc.
- H. CONTRACTOR shall initially submit to OWNER a minimum of six (6) copies of all submittals that are on 11-inch by 17-inch or smaller sheets (no less than 8 1/2-inch x 11-inch), and one unfolded sepia and 2 prints made from that sepia for all submittals on sheets larger than 11-inch by 17-inch.
- I. After OWNER completes his review, Shop Drawings will be marked with one of the following notations:
  - 1. Approved
  - 2. Approved as Corrected
  - 3. Revise and Resubmit
  - 4. Not Approved
- J. If a submittal is acceptable, it will be marked "Approved" or "Approved as Corrected". Three (3) prints or copies of the submittal will be returned to CONTRACTOR.

- K. Upon return of a submittal marked "Approved" or "Approved as Corrected", CONTRACTOR may order, ship or fabricate the materials included on the submittal, provided it is in accordance with the corrections indicated.
- L. If a Shop Drawing marked "Approved as Corrected" has extensive corrections or corrections affecting other drawings or Work, OWNER may require that CONTRACTOR make the corrections indicated thereon and resubmit the Shop Drawings for record purposes. Such drawings will have the notation, "Approved as Corrected - Resubmit."
- M. If a submittal is unacceptable, three (3) copies will be returned to CONTRACTOR with one of the following notations:
  - 1. "Revise and Resubmit"
  - 2. "Not Approved"
- N. Upon return of a submittal marked "Revise and Resubmit", CONTRACTOR shall make the corrections indicated and repeat the initial approval procedure. The "Not Approved" notation is used to indicate material or equipment that is not acceptable. Upon return of a submittal so marked, CONTRACTOR shall repeat the initial approval procedure utilizing acceptable material or equipment.
- O. Any related Work performed or equipment installed without an "Approved" or "Approved as Corrected" Shop Drawing will be at the sole responsibility of the CONTRACTOR.
- P. Shop Drawings shall be submitted well in advance of the need for the material or equipment for construction and with ample allowance for the time required to make delivery of material or equipment after data covering such is approved. CONTRACTOR shall assume the risk for all materials or equipment which are fabricated or delivered prior to the approval of Shop Drawings. Materials or equipment will not be included in periodic progress payments until approval thereof has been obtained in the specified manner.
- Q. OWNER will review and process all submittals promptly, but a reasonable time should be allowed for this, for the Shop Drawings being revised and resubmitted, and for time required to return the approved Shop Drawings to CONTRACTOR.
- R. It is CONTRACTOR'S responsibility to review submittals made by his suppliers and SUBCONTRACTORS before transmitting them to OWNER to assure proper coordination of the Work and to determine that each submittal is in accordance with his desires and that there is sufficient information about materials and equipment for OWNER to determine compliance with the Contract Documents. Incomplete or inadequate submittals will be returned for revision without review.

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- S. CONTRACTOR shall furnish required submittals with complete information and accuracy in order to achieve required approval of an item within three submittals. All costs to OWNER involved with subsequent submittals of Shop Drawings, Samples or other items requiring approval, will be backcharged to CONTRACTOR, at the rate of 3.0 times direct technical labor cost, by deducting such costs from payments due CONTRACTOR for Work completed. In the event that CONTRACTOR requests a substitution for a previously approved item, all of OWNER'S costs in the reviewing and approval of the substitution will be backcharged to CONTRACTOR unless the need for such substitution is beyond the control of CONTRACTOR.
- T. Close Out Submittals: Refer to Section 1700 for specific general requirements on the submittal of closeout information, materials, tools, and similar items.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION



## **SECTION 01400-GENERAL QUALITY CONTROL**

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### **PART 1 - GENERAL REQUIREMENTS**

#### **1.01 SUMMARY:**

- A. Specific quality control requirements for the work are indicated throughout the contract documents. The requirements of this section are primarily related to the performance of the work beyond the furnishing of manufactured products. The term "Quality Control" includes, but is not necessarily limited to inspection and testing and associated requirements. This section does not specify or modify the OWNER's duties relating to quality review and Contract surveillance."

#### **1.02 TESTING LABORATORY SERVICES:**

- A. Arrangements for testing laboratory services will be made by OWNER. Payment for testing to show compliance with specified requirements will be paid for by OWNER. The cost of retesting when materials and workmanship fail to meet specified requirements will be deducted from monies due CONTRACTOR.

#### **1.03 LABORATORY STANDARDS:**

- A. Testing laboratories shall conform to the applicable requirements of ASTM E329-77 (1983) STANDARD RECOMMENDED PRACTICE FOR INSPECTION AND TESTING AGENCIES FOR CONCRETE, STEEL AND BITUMINOUS MATERIALS AS USED IN CONSTRUCTION and shall be inspected and approved by the ELF/FC&PA Joint Technical Committee, Inc., or by an equivalent recognized national authority.
- B. Agents of testing laboratories performing field sampling and field testing of concrete shall be certified by the American Concrete Institute as Concrete Field Testing Technicians Grade 1 or by an equivalent recognized national authority for an equivalent level of competence, or shall be licensed Professional Engineers.

#### **1.04 ACCESS FOR INSPECTION:**

- A. OWNER and their authorized representatives shall be permitted free access and every reasonable facility for the inspection of all Work, materials and equipment. OWNER and his authorized representatives shall also be permitted to inspect payrolls, invoices for materials and equipment. OWNER and his authorized representatives shall also be permitted to inspect payrolls, invoices for materials and equipment and other relevant data and records.
- B. Authorized representatives of Federal, State or local agencies shall be permitted access to inspect for compliance with applicable laws, regulations and permit requirements.

- C. On projects where Federal or State agency funding is used, authorized representatives of those agencies shall be permitted to inspect all work, materials, equipment, payrolls, records of personnel, invoices for materials and equipment and other relevant data and records.

**1.05 INSPECTION OF WORK AWAY FROM SITE:**

- A. When work to be done away from the construction site is to be inspected on behalf of OWNER during its fabrication, manufacture or testing or before shipment, CONTRACTOR shall give notice to OWNER of the time and place where such fabrication, manufacturing, testing or shipping is to be done. Such notice shall be in writing and delivered to OWNER in ample time so that the necessary arrangements for the inspection can be made.

**1.06 RESPONSIBILITY FOR INSPECTIONS AND TESTS:**

- A. The OWNER will employ and pay for the services of independent testing laboratories to perform required onsite inspections, sampling and tests to include but not be limited to soil density, asphalt density and / or stability, road base and sub grade compaction, stability, etc.
- B. No failure of test agencies, whether engaged by the OWNER or CONTRACTOR, to perform adequate inspections of tests or to properly analyze or report results, shall relieve the CONTRACTOR of responsibility for the fulfillment of the requirements of the contract documents. It is recognized that the required inspection and testing program is intended to assist the CONTRACTOR, OWNER and governing authorities in the determination of probable compliance with requirements for certain crucial elements of work. The program is not intended to limit the CONTRACTOR in his regular quality control program, as needed for general assurance of compliance.
- C. The CONTRACTOR is responsible for providing all data required by the OWNER to ensure that the construction materials and equipment used are in compliance with the contract bid documents and subsequent changes.

**1.07 QUALITY ASSURANCE:**

- A. General Workmanship Standards: It is a requirement that each category of management, tradesman or installer performing the work be prequalified, to the extent of being familiar with the applicable and recognized quality standards for his category of work, and being capable of workmanship complying with those standards. All errors, omissions or ambiguities that

will materially affect the work shall be brought to the OWNER's attention as soon as they are discovered.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

**3.01 LABORATORY STANDARDS:**

- A. Testing laboratories shall conform to the applicable requirements of ASTM E329-77 (latest) STANDARD RECOMMENDED PRACTICE FOR INSPECTION AND TESTING AGENCIES FOR CONCRETE, STEEL AND BITUMINOUS MATERIALS AS USED IN CONSTRUCTION and shall be inspected and approved by the ELF/FC&PA Joint Technical Committee, Inc., or by an equivalent recognized national authority.
- B. Agents of testing laboratories performing field sampling and field testing of concrete shall be certified by the American Concrete Institute as Concrete Field Testing Technicians Grade 1 or by an equivalent recognized national authority, or shall be licensed Professional Engineer.

**3.02 PRODUCT DELIVERY-STORAGE HANDLING:**

- A. CONTRACTOR shall handle, store and protect new and salvaged project materials and products, including fabricated components, by methods and means which will prevent damage, deterioration and losses (and resulting delays), thereby ensuring highest quality results as the performance of the work progresses. Control delivery schedules so as to minimize unnecessary long-term storage at the project site prior to installation.

**3.03 PREPARATION FOR INSTALLATION:**

- A. Pre-Installation Conferences: Well in advance of the installation of every major unit of work which requires coordination with other work, meet at the project site with installers and representatives of manufacturers and fabricators, utility owners and facility owners who are involved in or affected by the unit of work, and in its coordination or integration with other work which has preceded or will follow. Advise the OWNER of scheduled meeting dates. At each meeting review the progress of other work and preparations for the particular work under consideration, including the requirements of the contract documents, options, related change orders, purchases, deliveries, shop drawings, product data, quality control samples, possible conflicts, compatibility problems, time schedules, weather limitations, temporary facilities, space and access limitations, structural limitations, governing regulations, safety, inspection and testing requirements, required performance results, recording requirements, and protection. Record the

significant discussions of each conference, and the agreements and disagreements, along with the final plan of action. Distribute record of meeting promptly to everyone concerned, including the OWNER.

- B. Do not proceed with the work if the associated pre-installation conference cannot be concluded successfully, investigate actions to resolve impediments to the performance of the work, and reconvene the conference at the earliest date feasible.
- C. Installer's Inspection of Conditions; Require the Installer of each major unit of work to inspect the substrate to receive the work, and the conditions under which the work will be performed, and to report (in writing to the CONTRACTOR and OWNER) unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.

### **3.04 COORDINATION OF TEST AGENCY WORK:**

- A. Afford access and reasonable time in the construction sequence for OWNER's inspections and tests to be performed. Cooperate with agencies and provide incidental labor and services needed for the removal and delivery of test samples, and for inspections and taking measurements. Provide patching and restoration services where test samples have been removed. Test agencies, regardless of whether engaged by the OWNER or CONTRACTOR, are not authorized to change or negate the requirements of the contract documents. Each agency shall coordinate its assigned work with the construction schedule as maintained by the CONTRACTOR, and shall perform its work promptly so as not to delay the work avoidably. observances (by agencies) having a bearing on the work shall be reported to the OWNER, in the most expeditious way possible, and shall be recorded in writing by the agency. Test agency personnel shall not interfere with or assume the duties of the CONTRACTOR.

### **3.05 PROJECT PHOTOGRAPHS/ VIDEOS**

- A. Video all line work, water, sanitary sewer, drainage, etc. The CONTRACTOR shall make provisions at his expense for DVD video of all line work just prior to construction, and during construction. The videos will show pertinent physical features along the line of construction. The purpose of the videos is to determine any damage to private or public property during construction. For some projects, such as parking lots, building structures, water, wastewater facilities, etc., a combination of photographs and DVD video will be required. A copy of the video and photographs shall be provided to the OWNER.

### **3.06 INSTALLATION QUALITY CONTROL:**

- A. Manufacturer's Instructions: Where installations include manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation, to whatever extent these are more explicit or more stringent than applicable requirements indicated in the contract documents.
- B. Inspect each item of materials or equipment immediately prior to installation, and reject damaged and defective items.
- C. Recheck measurements and dimensions of work, as an integral step of starting each installation.
- D. Install work during conditions of temperature, humidity, exposure, forecasted weather, and status of project completion which will ensure the best possible results for each unit of work, in coordination with the entire work. Isolate each unit of work from non-compatible work, as required to prevent deterioration.

END OF SECTION

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## **SECTION 01500 – TEMPORARY FACILITIES AND CONTROLS**

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### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION OF REQUIREMENTS**

- A. This section specifies the minimum requirements for temporary facilities, utilities to be brought to the site, and control required to enable the construction of the project to progress adequately. The providing of adequate facilities at every stage of performing the work is the CONTRACTOR'S sole responsibility, and is not limited by the requirements of this section.
- B. Except as otherwise indicated, the CONTRACTOR may, at his option, provide stand-alone utility plants to provide needed services, in lieu of connected services from available public utilities, provided such stand-alone plant facilities comply with governing regulations. Prior to availability of temporary utility services, provide trucked-in/trucked-out containerized or unitized services for start-up of construction operations at the site.
- C. Except as otherwise indicated, the costs of providing and using temporary utility services shall be included in the Contract Sum.

#### **1.02 TEMPORARY FACILITIES**

- A. The types of utility services required for general temporary use at the project site include the following (other specific services may be required for specific construction methods or operations):
  - Electrical Power Service
  - Water Service (potable for certain uses)
  - Sanitary
  - Storm Sewer or Open Drainage/Run-off Control
  - Gas (fuel) Service
  - Telephone Service
- B. Temporary Electricity. The CONTRACTOR shall provide for a temporary power source for his use during construction and arrange for modification of the permanent power supply by the power company as required. The permanent power supply service will remain as the OWNER's account throughout the project.
- C. Temporary Water. The CONTRACTOR shall make all necessary application and arrangements, and pay all fees and charges for water necessary for the proper completion of the project up to the time of final acceptance. The CONTRACTOR shall provide and pay for any temporary piping and connections.

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- D. **Temporary Sanitary Facilities.** The CONTRACTOR shall provide adequate sanitary facilities for the use of those employed on the work. Such facilities shall be made available when the first employees arrive on the site of the work, shall be properly secluded from public observation, and shall be constructed and maintained during the progress of the work in suitable numbers and at such points and in such manner as may be required or approved.
- E. The CONTRACTOR shall maintain the sanitary facilities in a satisfactory and sanitary condition at all times and shall enforce their use. He shall rigorously prohibit the committing of nuisances on the site of the work, on the lands of the OWNER, or on adjacent property.
- F. **Termination and Removal.** At the time the need for temporary utility service or a substantial portion thereof has ended, or when its service has been replaced by use of permanent services, or not later than the time of substantial completion, promptly remove the installation unless requested by the OWNER to retain it for a longer period. Complete and restore work, which may have been delayed or affected by the installation and use of the temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces. Replace work damaged beyond acceptable restoration.

### 1.03 TEMPORARY CONTROLS

- A. **Noise Control.** The CONTRACTOR shall provide adequate protection against objectionable noise levels caused by the operation of construction equipment.
- B. **Dust Control.** The CONTRACTOR shall provide for adequate protection against raising objectionable dust clouds caused by moving construction equipment, high winds or any other cause.
- C. **Water Control.** The CONTRACTOR shall provide for satisfactory disposal of surplus water and shall submit a plan to the OWNER for his review prior to initiation and implementation of the plan. Prior approval shall be obtained from the proper authorities for the use of public or private lands or facilities for such disposal. CONTRACTOR shall be responsible for obtaining and complying with the requirements of any dewatering or consumptive use permits required by regulatory authorities.
- D. **Pollution Control.** The CONTRACTOR shall provide for adequate protection against polluting any public or private lands, lakes, ponds, rivers, streams, creeks, and other such areas, by the disposal of surplus material in the form of solids, liquids, or gases or from any other cause.
- E. The CONTRACTOR shall evaluate and assess the impact of any adverse effects on the natural environment which may result from construction operations and shall operate to minimize pollution of air, ground or surface waters vegetation, and afford the neighboring community the maximum protection during and up to completion of the construction project.



- F. The CONTRACTOR shall take sufficient precautions to prevent pollution of streams, lakes and reservoirs with fuels, oils, bitumens, calcium chloride or other harmful materials. He shall conduct and schedule his operations so as to avoid or otherwise prevent pollution of siltation of streams, lakes and reservoirs and to avoid interference with movement of migratory fish.
- G. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.
- H. **Erosion Control.** The CONTRACTOR shall not expose, by construction operations, a larger area of erosive land at any one time than the minimum necessary for efficient construction operations, and the duration of exposure of the uncompleted construction to the elements shall be as short as practicable.
- I. Erosion control features shall be constructed concurrently with other work and at the earliest practicable time.
- J. **Paint Splatter Control.** The CONTRACTOR shall take precautions necessary to prevent paint splatter and wind-blown splatter from falling on adjacent buildings, vehicles and vehicular traffic and shall be solely responsible for any damage resulting from the work.
- K. **Sandblasting, Dust & Debris Control.** The CONTRACTOR shall provide for adequate protection of the work area to prevent nuisance and damage to adjacent properties and vehicular traffic from cleaning and sandblasting debris and shall be solely responsible for any damage therefrom.

#### 1.04 STORAGE FACILITIES

- A. All products, materials and equipment shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Products subject to damage by the elements shall be stored in weathertight enclosures. Temperature and humidity shall be maintained within the ranges required by the manufacturer's instructions. Fabricated products shall be stored above the ground on blocking or skids. Products, which are subject to deterioration, shall be covered with impervious coatings with adequate ventilation to avoid condensation. Loose granular materials shall be stored in a well-drained area on solid surfaces to prevent mixing with foreign matter. Any products, which will come in contact with potable water, shall be stored off the ground so as to prevent contamination.
- B. The City will refuse to accept, or sample for testing, materials, supplies or equipment that have been improperly stored, as determined by the City. Materials found unfit for use shall not be incorporated in the work and shall immediately be removed from the construction or storage site. Delivered materials shall be stored in a manner acceptable to the City before any payment for same will be made.

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- C. Storage shall be arranged in such a manner to provide easy access for inspection. Periodic inspections shall be made of all stored products to assure that they are maintained under specified conditions, and free from damage or deterioration.
- D. After installation, CONTRACTOR shall provide substantial coverings as necessary to installed products to protect from damage from traffic and subsequent construction operations. Coverings shall be removed when no longer needed.

**1.05 QUALITY ASSURANCE:**

- A. Regulations: Comply with governing regulations and utility company regulations and recommendations for the construction of temporary utility services; including (but not necessarily limited to) code compliance, permits, inspections, testing, and health and safety compliance.
  - a. Comply with pollution and environmental protection regulations for the use of water and other services, and for the discharge of wastes and stormwater drainage from the project site. Comply with whatever "Environmental Impact" commitments may have been made by the OWNER or previous OWNERS of the site in securing approval to proceed with the construction of the project.
  - b. CONTRACTOR must control turbidity in rivers or canals so that it does not exceed established background turbidity by more than 50 Jackson Units at a distance greater than 100 feet from the point of work. This shall be done by the use of a "diaper" or screen suspended by floats or other methods approved by the Project Representative.
- B. Standards: Comply with the "Manual of Accident Prevention in Construction" by AGC. Comply with NFPA Code 241 "Building Construction and Demolition Operations".

**1.06 OPERATIONS AND TERMINATIONS:**

- A. Inspections: Prior to placing temporary utility services into use, inspect and test each service and arrange for governing authorities required inspection and tests, and obtain required certifications and permits for use thereof.
- B. Supervision: Enforce strict discipline in the use of utility services. Limit availability to essential uses, so as to minimize wastes. Do not allow the installations to be abused or endangered.
- C. Protection: Prevent water-filled piping from freezing, by ground cover or insulation or by keeping drained, or by temporary heating. Maintain distinct markers for underground lines, and protect from damage during excavating operations.

- D. The CONTRACTOR shall provide adequate signs, barricades, flashing lights, flagmen and watchmen and take all necessary precautions for the protection of the work and the safety of the public. Traffic control warning signs and barricades shall be in strict accordance with the provisions of the Florida Department of Transportation, Manual on Traffic Controls and Safe Practices for Street and Highway Construction, Maintenance and Utility operations, latest revision. All barricades and obstructions shall be protected at night by flashing signal lights which shall be kept burning from sunset to sunrise. Barricades shall be of substantial construction and suitable for night visibility. Suitable warning signs shall be so placed and illuminated at night as to show in advance where construction, barricades, or detours exist.
- E. The CONTRACTOR shall at all times so conduct his work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property, in a manner satisfactory to the City. No road or street shall be closed to the public, except with the permission of the City and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to insure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches.
- F. Preservation: Preserve from damage all property along the line of the work, or which is in the vicinity of or is in any way affected by the work, the removal or destruction of which is not called for by the plans. Wherever such property is damaged due to the activities of the CONTRACTOR, it shall be immediately restored to its original condition by the CONTRACTOR at no cost to the OWNER.
- a. In case of failure on the part of the CONTRACTOR to restore such property, or make good such damage or injury, the OWNER may, after 48 hours notice to the CONTRACTOR, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any moneys due or which may become due the CONTRACTOR under this Contract.
- b. The CONTRACTOR shall be responsible for the protection of property, in the areas in the vicinity of the project; and for the protection of his equipment, supplies, materials and work, against any damage resulting from the elements, such as flooding, by rainstorm, wind damage, or other elemental cause resulting from the project configuration. The CONTRACTOR shall take all precautions against any such damage occurrence, and shall be responsible for damage resulting from same. The CONTRACTOR shall provide adequate drainage facilities, tie-downs, or other protection, throughout the Contract period, for the protection of his, the OWNER's and other properties from such damage.
- G. Termination and Removal: At the time the need for a temporary utility service or a substantial portion thereof has ended, or when its service has been replaced by use of permanent services, or not later than the time of substantial completion, promptly remove the installation unless requested

by the City to retain it for a longer period. Complete and restore work, which may have been delayed or affected by the installation and use of the temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces. Replace work damaged beyond acceptable restoration.

## **1.07 PRESERVATION OF PROPERTY**

- A. Preserve from damage all property along the line of the work, or which is in the vicinity of or in any way affected by the work, the removal or destruction of which is not called for by the plans. Wherever such property is damaged due to the activities of the CONTRACTOR, it shall be immediately restored to its original condition by the CONTRACTOR at no cost to the OWNER.
  - a. In case of failure on the part of the CONTRACTOR to restore such property, or make good such damage or injury, the OWNER may, after 48 hours notice to the CONTRACTOR, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the CONTRACTOR under this Contract.
  - b. The CONTRACTOR shall be responsible for the protection of property, in the areas in the vicinity of the project; and for the protection of his equipment, supplies, materials and work, against any damage resulting from the elements, such as flooding, by rainstorm, wind damage, or other elemental cause resulting from the project configuration. The CONTRACTOR shall take all precautions against any such damage occurrence, and shall be responsible for damage resulting from same. The CONTRACTOR shall provide adequate drainage facilities, tie-downs, or other protection, throughout the Contract period, for the protection of his, the OWNER's, and other properties from such damage.

## **1.08 TRAFFIC REGULATION**

- A. Signs, marking barricades and procedures shall conform to the requirements of the Florida Department of Transportation Manual on Traffic Controls and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.
- B. The CONTRACTOR shall provide and maintain adequate barricades, construction signs, torches, flashers, guards and flagmen as required in pedestrian and vehicular traffic areas. Comply with local authorities regulations.
- C. The CONTRACTOR shall provide suitable crossings at street intersections and driveways, and supply such aid as may be required for pedestrians and motorists, including delivery vehicles, to safely negotiate the construction areas. "Street Closed to Through Traffic" signs and "Detour" routes shall be indicated and maintained by the CONTRACTOR when the job is located in a public or private street or way.

- D. The CONTRACTOR shall carry on the work in a manner that will cause the least interruption in traffic. Closing to through travel of more than two consecutive blocks, including the cross street intersected will not be permitted without specific authorization of the local street department. Where traffic must cross open trenches, the CONTRACTOR shall provide suitable bridges at street intersections and driveways and provide adequate ingress and egress to dwellings, business facilities, utilities and services. At any time that streets are required to be closed, the CONTRACTOR shall notify law enforcement agencies, fire departments, and parties operating emergency vehicles before the street is closed and again as soon as it is opened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times.
- E. On completion of work, the CONTRACTOR shall remove all debris, excess materials, barricades and temporary work leaving walkways and road clear of obstructions.
- F. Detour routes for the diverting of traffic from the Work Area are limited in the Project Area. The Project Area may be marked "ROAD CLOSED AHEAD - LOCAL TRAFFIC ONLY" to discourage through traffic from using the route. Short areas where work is underway may be closed to traffic, provided detour routes are marked to guide the public around the work area. Where detour routes are not available, flagmen shall be provided to direct one-way traffic through the construction area.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01541-PROTECTION OF THE WORK AND PROPERTY**

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### **PART 1 - GENERAL**

#### **1.01 GENERAL**

- A. CONTRACTOR shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property and facilities from damage as specified in the General Conditions and herein.
- B. In order to prevent damage, injury or loss, CONTRACTOR'S actions shall include, but not be limited to, the following:
  - 1. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work or the Work of any other contractor or utility service company.
  - 2. Provide suitable storage facilities for all materials which are subject to injury by exposure to weather, theft, breakage, or otherwise.
  - 3. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
  - 4. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the Work shall present a safe, orderly and workmanlike appearance.
  - 5. Provide barricades and guard rails around openings, for scaffolding, for temporary stairs and ramps, around excavations, elevated walkways and other hazardous areas.
- C. CONTRACTOR shall not, except after written consent from proper parties, enter or occupy privately-owned land with men, tools, materials or equipment, except on easements provided herein.
- D. CONTRACTOR shall assume full responsibility for the preservation of all public and private property or facility on or adjacent to the site. If any direct or indirect damage is done by or on account of any act, omission, neglect or misconduct in the execution of the Work by the CONTRACTOR, it shall be restored by the CONTRACTOR, at his expense, to a condition equal to that existing before the damage was done.

#### **1.02 BARRICADES AND WARNING SIGNALS**

- A. Where Work is performed on or adjacent to any roadway, right-of- way, or public place, CONTRACTOR shall provide barricades, fences, lights, warning signs, danger signals, watchmen, and shall take other precautionary measures for the protection of persons or property and of the Work. Barricades shall be painted to be visible at night. From sunset to sunrise, CONTRACTOR shall furnish and maintain at least one light at each barricade. Sufficient barricades shall be erected to keep vehicles from being driven on or into Work under construction. CONTRACTOR shall furnish watchmen in sufficient numbers to protect the Work. CONTRACTOR'S responsibility for the maintenance of barricades,

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signs, lights, and for providing watchmen shall continue until the Project is accepted by OWNER.

### **1.03 TREE AND PLANT PROTECTION**

- A. CONTRACTOR shall protect existing trees, shrubs and plants on or adjacent to the site that are shown or designated to remain in place against unnecessary cutting, breaking or skinning of trunk, branches, bark or roots.
- B. Materials or equipment shall not be stored or parked within the drip line.
- C. Temporary fences or barricades shall be installed to protect trees and plants in areas subject to traffic.
- D. Fires shall not be permitted under or adjacent to trees and plants.
- E. Within the limits of the Work, water trees and plants that are to remain, in order to maintain their health during construction operations.
- F. Cover all exposed roots with burlap that shall be kept continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run-off or noxious materials in solution.
- G. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use in a manner approved by the OWNER.
- H. All damaged trees and plants that die or suffer permanent injury shall be removed when ordered by the OWNER and replaced by a specimen of equal or better quality.
- I. Coordinate Work in this Section with requirements of other sections herein.

### **1.04 PROTECTION OF EXISTING STRUCTURES**

- A. Underground Structures:
  - 1. Underground structures are defined to include, but not be limited to, all sewer, water, gas, and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
  - 2. All underground structures known to OWNER except water, sewer, electric, and telephone service connections are shown. This information is shown for the assistance of CONTRACTOR in accordance with the best information available, but is not guaranteed to be correct or complete.
  - 3. CONTRACTOR shall explore ahead of his trenching and excavation Work and shall uncover all obstructing underground structures sufficiently to determine their location, to prevent damage to them and to prevent interruption to the

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services which such structures provide. If CONTRACTOR damages an underground structure, he shall restore it to original condition at his expense.

4. Necessary changes in the location of the Work may be made by OWNER, to avoid unanticipated underground structures.
5. If permanent relocation of an underground structure or other subsurface facility is required and is not otherwise provided for in the Contract Documents, OWNER will direct CONTRACTOR in writing to perform the Work, which shall be paid for under the provisions of Article 13 of the General Conditions.

B. Surface Structures:

1. Surface structures are defined as all existing buildings, structures and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

C. Protection of Underground and Surface Structures:

1. CONTRACTOR shall sustain in their places and protect from direct or indirect injury all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, CONTRACTOR shall satisfy the OWNER that the methods and procedures to be used have been approved by the party owning same.
2. CONTRACTOR shall assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the Work. CONTRACTOR shall be responsible for all damage and expense for direct or indirect injury caused by his Work to any structure. CONTRACTOR shall repair immediately all damage caused by his work, to the satisfaction of the OWNER of the damaged structure.

- D. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers, and curbs which are temporarily removed to facilitate installation of the Work shall be replaced and restored to their original condition at CONTRACTOR'S expense.

## **1.05 PROTECTION OF FLOORS AND ROOFS**

- A. CONTRACTOR shall protect floors and roofs during entire construction period.

- B. Proper protective covering shall be used when moving heavy equipment, handling materials or other loads, when painting, handling mortar and grout and when cleaning walls and ceilings.
- C. Use metal pans to collect all oil and cuttings from pipe, conduit, or rod threading machines and under all metal cutting machines.
- D. Concrete floors less than 28 days old shall not be loaded without written permission of the OWNER. No floor, roof or slab shall be loaded in excess of its design loading.
- E. Roofs shall not be loaded without written permission of the OWNER.
- F. CONTRACTOR shall restrict access to roofs and keep clear of existing roofs except as required by the new Work.
- G. If access to roofs is required, roofing, parapets, openings and all other construction on or adjacent to roof shall be protected with suitable plywood or other approved means.

**1.06 PROTECTION OF INSTALLED PRODUCTS AND LANDSCAPING**

- A. Provide protection of installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of Work.
- B. Control traffic to prevent damage to equipment, materials and surfaces.
- C. Provide coverings to protect equipment and materials from damage.
  - 1. Cover projections, wall corners, and jambs, sills and soffits of openings, in areas used for traffic and for passage of products in subsequent work.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## SECTION 01600-MATERIALS AND EQUIPMENT

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### PART 1 - GENERAL

#### 1.01 DESCRIPTION OF REQUIREMENTS

- A. Materials and equipment furnished by CONTRACTOR shall be new and shall not have been in service at any other installation unless otherwise provided. Materials and equipment shall conform to applicable specifications and standards and comply with the size, make, type and quality specified, or as specifically approved in writing by OWNER.
- B. Manufactured and fabricated items shall be designed, fabricated and assembled in accordance with the best engineering and shop practices. Like parts of duplicate units shall be manufactured to standard sizes and gages to be interchangeable.
- C. Two or more things of the same kind shall be identical, by the same manufacturer.
- D. Materials and equipment shall be suitable for service conditions shown or specified.
- E. Equipment which requires auxiliary devices or equipment in order to operate properly shall have such auxiliary devices or equipment included as a part of its system.
- F. Equipment sizes, capacities and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
- G. Materials and equipment shall not be used for any purpose other than that for which it is designed or is specified.
- H. Where existing materials or equipment is specifically shown or specified to be reused in the work, special care shall be used in removal, handling, storage, and reinstallation, to assure proper function in the completed work.
- I. CONTRACTOR shall arrange for transportation, storage and handling of products which require off-site storage, restoration or renovation.
- J. **Salvaged Materials.** In the absence of special provisions to the contrary, salvaged materials, equipment or supplies are the property of OWNER and shall be cleaned and stored as directed by OWNER.
- K. **Manufacturer's Instructions.** The installation of all work shall comply with manufacturer's written instructions. CONTRACTOR shall obtain and distribute copies of such instructions to parties involved in the installation including two copies to OWNER. One complete set of instructions shall be maintained at the job site during installation and until completion. All products and equipment shall be handled, installed, connected, cleaned, conditioned and adjusted in accordance with the manufacturer's instructions and specified requirements. Should job conditions or specified requirements conflict with manufacturer's instructions, such conflicts shall be called to OWNER'S attention for resolution and revised instructions.

- L. **Equipment Guarantee.** All mechanical and electrical equipment, together with devices of whatever nature and all components, which are furnished and/or installed by CONTRACTOR shall be guaranteed. The guarantee shall be against manufacturing and/or design inadequacies, materials and workmanship, improper assembly, hidden damage, failure of devices and/or components, excessive leakage or other circumstances which would cause the equipment to fail under normal design and/or specific operating conditions for a period of one year or such longer period as may be shown and/or specified from and after the date of acceptance of the equipment by OWNER. Each piece of equipment, device or component which shall fail within the above specified term shall be replaced with reasonable promptness by CONTRACTOR without cost to OWNER.
- M. **Operating Characteristics.** Rotating machinery shall be designed and fabricated to provide satisfactory operation without excessive wear and without excessive maintenance during its operating life. Rotating parts shall be statically and dynamically balanced and shall operate without excessive vibration.
- N. **Lubrication System.** The minimum design criteria for lubrication of moving parts of the equipment shall include one week of continuous operation during which no lubricants shall be added to the system. The system shall also be designed to receive lubricants whether in operation or shut down, and shall not leak or waste lubricants under either condition. The manufacturer's recommendations of grade and quality and a supply of the lubricants so recommended in quantities sufficient to conduct startup and testing operations shall be furnished with the equipment.
- O. **Safety Requirements.** Screens, guards or cages shall be provided for all exposed, rotating or moving parts in accordance with accepted practices of applicable governmental agencies.
- P. **Nameplates.** Each major component of equipment shall have the manufacturer's name, catalog and/or model number, serial number and applicable performance requirements and characteristics embossed, stamped, or engraved on a stainless steel plate securely attached to the item of equipment.
- Q. **Anchor Bolts.** The manufacturer shall provide stainless steel anchor bolts for each piece of equipment furnished.

## 1.02 TRANSPORTATION AND HANDLING

- A. Materials and equipment shall be loaded and unloaded by methods affording adequate protection against damage. Every precaution shall be taken to prevent injury to the materials or equipment during transportation and handling. Suitable power equipment will be used and the materials or equipment shall be under control at all times. Under no condition shall the materials or equipment be dropped, bumped or dragged. When a crane is used, a suitable hook or lift sling shall be used. The crane shall be so placed that all lifting is done in a vertical plane. Materials or equipment skid loaded, palletized or handled on skidways shall not be skidded or rolled against materials or equipment already unloaded.
- B. Materials and equipment shall be delivered to the job site by means that will adequately support it and not subject it to undue stresses. Contractor shall promptly inspect the products for damage and defects and conformance with the specification. Materials and equipment

damaged or injured in the process of transportation, unloading or handling will be rejected and shall be immediately removed from the site.

**PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01611-STORAGE OF MATERIAL**

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### **PART 1 - GENERAL**

#### **1.01 GENERAL:**

- A. Store and protect materials in accordance with manufacturer recommendations and requirements of Specifications.
- B. CONTRACTOR shall make all arrangements and provisions necessary for the storage of materials and equipment. All excavated materials, construction equipment, and materials and equipment to be incorporated into the Work shall be placed so as not to injure any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the Work. Materials and equipment shall be kept neatly and compactly stored in locations that will cause a minimum of inconvenience to other CONTRACTORS, public travel, adjoining OWNERS, tenants and occupants. Arrange storage in a manner to provide easy access for inspection.
- C. Areas available on the construction site for storage of material and equipment shall be as shown or approved by the OWNER.
- D. Materials and equipment which are to become the property of the OWNER shall be stored to facilitate their inspection and insure preservation of the quality and fitness of the Work, including proper protection against damage by freezing and moisture. They shall be placed in inside storage areas unless otherwise acceptable to OWNER.
- E. Lawns, grass plots or other private property shall not be used for storage purposes without written permission of the OWNER or other person in possession or control of such premises.
- F. CONTRACTOR shall be fully responsible for loss or damage to stored materials and equipment.
- G. Do not open manufacturers' containers until time of installation unless recommended by the manufacturer or otherwise specified.
- H. Do not store products in the structures being constructed unless approved in writing by the OWNER.

### **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

## **PART 3 - EXECUTION**

### **3.01 UNCOVERED STORAGE:**

- A. The following types of materials may be stored out-of-doors without cover; masonry units, reinforcing steel, structural steel, piping, precast concrete items, castings, hand railing.
- B. Store the above materials on wood blocking so there is no contact with the ground.

### **3.02 COVERED STORAGE:**

- A. As allowed by manufacturer recommendations, materials may be stored out-of-doors if covered with material impervious to water and UV damage.
- B. Tie down covers with rope and slope to prevent accumulation of water on covers.
- C. Store materials on wood blocking.

### **3.03 FULLY PROTECTED STORAGE:**

- A. Store all products not named above in buildings or trailers that have concrete or wooden floor, a roof, and fully closed walls on all sides.
- B. Provide heated storage space for materials that would be damaged by freezing.
- C. Protect mechanical and electrical equipment from being contaminated by dust, dirt and moisture.
- D. Maintain humidity at levels recommended by manufacturers for electrical and electronic equipment.

### **3.04 MAINTENANCE OF STORAGE:**

- A. Maintain periodic system of inspection of stored products on scheduled basis to assure that; state of storage facilities is adequate to provide required conditions, required environmental conditions are maintained on continuing basis, products exposed to elements are not adversely affected.
- B. Mechanical and electrical equipment which requires long term storage shall have complete manufacturer's instructions for servicing, accompanying each item, with notice of enclosed instructions shown on exterior of package. Comply with manufacturer's instructions on scheduled basis. Space heaters that are part of electrical equipment shall be connected and operated continuously until equipment is placed in service.

END OF SECTION



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## **SECTION 01640 - SUBSTITUTIONS AND PRODUCT OPTIONS**

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### **PART 1 - GENERAL**

#### **1.01 SUBSTITUTION**

- A. After execution of the Agreement, substitution of materials or equipment from Suppliers other than those listed or included in the Agreement will be considered only if it is demonstrated by CONTRACTOR that:
- a. the material or equipment proposed for substitution is superior in design, construction and/or efficiency to that of the listed Supplier; or
  - b. the material proposed for substitution is in every way equal to that of the listed Supplier, and that availability and/or delivery of listed materials within the time frame scheduled cannot be met; or
  - c. the material proposed for substitution is in every way equal to that of the listed Supplier and is available at a lower cost. In the event such a substitution is allowed, CONTRACTOR shall accept and execute a Change Order reducing the Contract Price by an amount equal to the cost differential.
- B. Equipment which requires supplemental services, additional mechanisms, additional operating steps and/or controls will not be accepted.

#### **1.02 MATERIALS AND EQUIPMENT REQUIRING CHANGES IN CONTRACT DOCUMENTS**

- A. CONTRACTOR will furnish materials and equipment which may be installed and operated properly in the structures and arrangements shown. Should CONTRACTOR select alternate items which require alteration or addition to, enlargement of, or any other changes from the lines, dimensions, and grades shown, CONTRACTOR shall make such changes as are required without additional payment. All changes shall be subject to review and acceptance by OWNER.

### **PART 2 - MATERIALS AND EQUIPMENT**

(Not Applicable)

### **PART 3 - EXECUTION**

(Not Applicable)

END OF SECTION

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## **SECTION 01700-RECORD DOCUMENTS & CLOSEOUT PROCEDURES**

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### **PART 1- GENERAL**

#### **1.01 DESCRIPTION OF REQUIREMENTS:**

- A. **Definition.** Closeout is defined to include general requirements near end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by OWNER and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Divisions 2 through 16. Time of closeout is directly related to "Substantial Completion", and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work that have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

#### **1.02 CLOSEOUT SUBMITTALS:**

- A. When the OWNER finds that the work is acceptable under the Contract Documents, he shall request the CONTRACTOR to make closeout submittals.
- B. The CONTRACTOR's closeout submittals shall include:
1. Evidence of compliance with requirements of governing authorities.
  2. Project Record Documents. The documents shall be submitted as one set 11x17 drawings, one PDF copy, and one copy of Autocad drawing files.
  3. Tests and Balance Reports
  4. Operating and Maintenance Data, Instructions to OWNER's Personnel.
  5. Warranties and Bonds.
  6. Keys and Keying Schedule.
  7. Spare Parts and Maintenance Materials.
  8. Evidence of Payment and Release of Liens.
  9. Certificate of Insurance for Products and Completed Operations.

#### **1.03 RECORD DOCUMENTS:**

- A. General: The general submittal requirements are indicated in Section 01300. Do not use record documents for construction purposes; protect from deterioration and loss in a secure fire-resistive location; provide access to record documents for the City's inspection during normal working hours.

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- B. Record Drawings: Final record drawings are to be prepared and sealed by a registered Land Surveyor and shall comply with this specification and Fla. Administrative Code, Chapter 61G17, "Minimum Technical Standards". The CONTRACTOR is to maintain a record of new information which is recognized to be of importance to the OWNER, but was for some reason not shown on either the contract drawings or shop drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date. Note related change order numbers where applicable. This information is to be provided to the surveyor for incorporation into the final set of as-built drawings. Record drawings shall be provided in their final form on 11x17 sheets with electronic copy of final record in PDF and AutoCadd format versions deemed acceptable by The City.
- C. Information to be shown for water mains or re-use mains shall include the location of valves, tees, bends and crosses dimensioned to the baseline survey or monument, including the station and offset. Elevations to top of pipe shall be provided every 100'. For situations where the main is being adjusted to avoid conflicts with other utilities (less than 100' in total length), then elevations shall be provided at the beginning of the deflection (i.e. the first bend), middle of the deflection (i.e. the point where the conflict would have occurred with the utility), and the end of the deflection (i.e. the last bend).
- D. Information to be shown for sanitary sewer wyes shall include the distance to the nearest manhole, length of service line, elevation to the top of the service lateral at the right-of-way, and building number served.
- E. Information to be shown for sanitary sewer force mains shall include the location of valves, tees, bends and crosses dimensioned to the baseline survey or monument, including the station and offset. Elevations to top of pipe shall be provided every 100' minimum. For situations where the force main is being adjusted to avoid conflicts with other utilities (less than 100' in total length), then elevations shall be provided at the beginning of the deflection (i.e. the first bend), middle of the deflection (i.e. the point where the conflict would have occurred with the utility), and the end of the deflection (i.e. the last bend).
- F. The CONTRACTOR will be held responsible for the accuracy of such data and shall bear any costs incurred in finding utilities as a result of incorrect data furnished by the CONTRACTOR.
- G. Documents and samples shall be stored in the CONTRACTOR's field office apart from documents used for construction. The CONTRACTOR shall provide files and racks for storage of documents, and a locked cabinet or secure storage space for storage of samples.

- H. Documents shall be maintained in a clean, dry, legible condition and in good order. Record documents shall not be used for construction purposes.
- I. Each document shall be labeled "PROJECT RECORD" in neat, large printed letters.
- J. Information shall be recorded concurrently with construction progress.
- K. No work shall be concealed until required information is recorded.
- L. Specifications and Addenda shall have each section legibly marked to record: manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed; and changes made by Field Order or by Change Order.
- M. At contract closeout Record Documents shall be delivered to the OWNER for the OWNER. The submittal shall be accompanied with a transmittal letter in duplicate, containing:
  - 1. Date
  - 2. Project title and number
  - 3. CONTRACTOR's name and address
  - 4. Title and number of each Record Document
  - 5. Signature of CONTRACTOR or his authorized representative

#### **1.04 OPERATION AND MAINTENANCE:**

- A. ***Operating and Maintenance Data.*** The CONTRACTOR shall compile product data and related information appropriate for OWNER's maintenance and operation of items furnished under the Contract. He shall instruct OWNER's personnel in the maintenance and operation of equipment and systems.
- B. Prior to the installation of any item of equipment, operation and maintenance data shall be submitted. Submittal shall be in seven copies in addition to any copies the CONTRACTOR desires returned to him and shall be in addition to the shop drawing submittals.
- C. The submittals shall include but not necessarily be limited to:
  - 1. Manufacturer's specifications.
  - 2. Directions and instructions relating to assembly, installation, operation and maintenance.
  - 3. Control and instrumentation system schematic drawings.

- 4. Parts list with catalog numbers and other data necessary for ordering replacements.
- D. Operation and maintenance data shall be submitted for each item of equipment, instrumentation and controls for which shop drawing submittals are required.
- E. ***Spare Parts and Maintenance Materials.*** The CONTRACTOR shall submit as specified in the individual sections all spare parts and maintenance materials. Such items shall be neatly and safely packaged and conspicuously labeled, in neat, large printed letters as to each packages' content.
- F. In specification sections where various equipment components require different or multiple spare parts, these spare parts shall be packaged separately and labeled accordingly.

**1.05 WARRANTIES AND BONDS**

- A. The CONTRACTOR shall compile and submit to the OWNER in duplicate, for review and transmittal to the OWNER, warranties, bonds, service and maintenance contracts as specified in the respective sections of Specifications. Submittal shall be made within ten days after Substantial Completion and prior to final request for payment.

**1.06 FINAL STATEMENT OF ACCOUNTING**

- A. The CONTRACTOR shall submit a final statement of accounting to the OWNER. The statement shall reflect all adjustments to the Contract Sum:
  - 1. The original Contract Sum
  - 2. Additions and deductions resulting from:
    - Previous Change Orders
    - Allowances
    - Unit Prices
    - Deductions for uncorrected work
    - Penalties and Bonuses
    - Deductions for liquidated damages
    - Deductions for reinspection payments
    - Other adjustments
  - 3. Total Contract Sum, as adjusted

4. Previous payments
5. Sum remaining due

#### **1.07 FINAL CHANGE ORDER**

- A. The OWNER will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

#### **1.08 FINAL APPLICATION FOR PAYMENT**

- A. The CONTRACTOR shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

#### **1.09 FINAL CLEANING:**

- A. General: Provide final cleaning of the work, at the time indicated, consisting of cleaning each surface or unit of work to the normal "clean" condition expected for a first-class building cleaning and maintenance program. Comply with manufacturers' instructions for cleaning operations. The following are examples, but not by way of limitation, of the cleaning levels required.
- B. Remove labels which are not required as permanent labels.
- C. Wipe surfaces of mechanical and electrical equipment clean, remove excess lubrication and other substances.
- D. Clean concrete floors in non-occupied spaces broom clean.
- E. Clean project site (yard and grounds), including landscape, development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petrochemical spills and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even-textured surface.

#### **1.10 REMOVAL OF PROTECTION:**

- A. Except as otherwise indicated or requested by the OWNER, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction period.

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**1.11 COMPLIANCY:**

- A. Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at the site, or bury debris or excess materials on the OWNER's property, or discharge volatile or other harmful or dangerous materials into drainage systems; remove waste materials from the site and dispose of in a lawful manner.
  
- B. Where extra materials of value remaining after completion of the associated work have become the OWNER's property, dispose or store at the site as directed by the OWNER.

**PART 2- MATERIALS AND EQUIPMENT**

(Not Applicable)

**PART 3- EXECUTION**

(Not Applicable)

END OF SECTION

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**SECTION 11226- SECONDARY CLARIFIER EQUIPMENT COLUMN-SUPPORTED SPIRAL SCRAPER TYPE**

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**FOR REFERENCE ONLY. CLARIFIER EQUIPMENT TO BE PROCURED BY CITY AND PROVIDED TO CONTRACTOR AS OWNER FURNISHED ITEM FOR INSTALLATION.**

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

- A. OWNER shall furnish three (3) clarifier mechanisms, each suitable for installation in an existing concrete basin as shown on the contract drawings.
- B. Each mechanism shall be a center column supported center feed unit with peripheral effluent collection. A center drive mechanism shall be provided for rotation of the two rake arms with spiral type rake blades.
- C. The equipment shall be designed to effectively settle mixed liquor suspended solids and scrape the settled solids from the basin floor to the sludge withdrawal drum as shown on the drawings. The clarified effluent shall be collected uniformly by the peripheral launder. Surface scum shall be collected by the scum skimming equipment and discharged through the scum withdrawal pipe.
- D. The equipment furnished for each clarifier mechanism shall include but not be limited to: center drive assembly, center drive platform, center support column with inlet openings, flocculating feedwell, inner dispersion inlet well (EDI), center cage, sludge collection arms with spiral rake blades, sludge Collection Manifold Device (CMD), rotating sludge collection drum, surface scum skimming equipment, effluent weir plates and scum baffle, peripheral density wall baffles, anchor bolts and assembly fasteners.
- E. Except where specifically indicated otherwise, all plates and structural members designated for submerged service shall have a minimum thickness of 1/4 inch. All structural steel will conform to ASTM A-36 requirements and steel plate will conform to ASTM A283C requirements. All anchor bolts used to secure the mechanism to the tank shall be 304 stainless steel. All fasteners shall be 304 stainless steel.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

NOT USED

### 1.03 PROCESS REQUIREMENTS

A.	Design average flow	(* ) MGD
B.	Design Peak flow	(* ) MGD
C.	Design average recycle flow	(* ) MGD
D.	Design maximum recycle flow	(* ) MGD
E.	Design average solids loading rate	(* ) lb/day/ft <sup>2</sup>
F.	Design maximum solids loading rate	(* ) lb/day/ft <sup>2</sup>
G.	Drive continuous torque	30,000 ft-lb
H.	Drive 100% design torque	70,000 ft-lb
I.	Drive momentary peak torque	110,000 ft-lb
J.	Mechanism rotation	Clockwise
K.	Rake arm tip speed,	8-12 ft/min

*\* Match existing units per Ovivo USA.*

### 1.04 DESIGN REQUIREMENTS

A.	Basin diameter	80'-0"
B.	Side water depth	14' Clarifier #4, 10' Clarifier #1 and #2
C.	Tank freeboard	24"
D.	Floor slope	As existing
E.	Center column diameter	28"
F.	Feedwell diameter	20'-0"
G.	Feedwell submerged depth	5'-0"
H.	Energy dissipating inlet (EDI) diameter	8'-0"
I.	EDI submerged depth	3'-0"
J.	Number of baffled EDI openings	Eight (8)
K.	Cage minimum size	4'-0" square
L.	Rake arm minimum size	3'-10" square
M.	Spiral blade height at tank wall	8"
N.	Spiral blade height near tank center	24"
O.	Rotating sludge drum diameter	5'-10"
P.	Rotating sludge drum height	24"
Q.	Scum box width	Full radius

### 1.05 FIELD SERVICE REQUIREMENTS

A.	Number of eight-hour days	6
B.	Number of trips to jobsite	6

### 1.06 REFERENCES

- A. American Society of Testing Materials (ASTM):
  - 1. A-36 Structural Steel Specifications
  - 2. 304 Bolt Specifications
  - 3. A-123 Hot-Dip Galvanized Coatings

4. A-153 Hot-Dip Galvanized Bolts
5. A-48 Cast Iron Specifications
6. A-536 Ductile Iron Specifications
7. A-283C Steel Plate Specifications
- B. American Iron and Steel Institute (AISI), Heat Treated Steel Specifications
- C. American Gear Manufacturers' Association (AGMA), Gear Ratings
- D. American Welding Society (AWS), Current Standards
- E. Anti-friction Bearing Manufacturers' Association (AFBMA), Bearing Life Specifications
- F. National Electrical Manufacturer's Association (NEMA), Motor Design Standards and Standards for Control Enclosures

### **1.07 QUALITY ASSURANCE**

- A. The clarifier equipment manufacturer shall modify his standard equipment to meet the minimum values specified for dimensions, design, and the intent of this specification.
- B. The clarifier equipment shall be manufactured by Ovivo USA (formerly EIMCO Water Technologies).

### **1.08 CONTRACTOR'S SUBMITTALS**

- A. The clarifier equipment manufacturer shall furnish as a minimum the following design and description information to establish compliance with these specifications:
  1. Certified general arrangement and tank dimensional drawings.
  2. Certificate of design stamped by a Registered Professional Engineer stating that the equipment to be provided for this project meets or exceeds all design requirements of these specifications. The certificate shall state the respective loads and design criteria.
  3. Drive mechanism rating calculations, stamped by a Registered Professional Engineer, verifying the compliance of the drive gears and bearings with the specified continuous torque rating and bearing life rating.
  4. Calculations to demonstrate that the scraper design has adequate capacity to transport the maximum day sludge loadings per Section 1.03.
  5. Motor data and catalog information. Electrical drawings as applicable to the supply of the clarifier equipment manufacturer.
  6. Catalog cut sheets for purchased sub-components.

### **1.09 OPERATION AND MAINTENANCE MANUALS**

- A. Operation and maintenance manuals will be provided by the clarifier manufacturer at least two weeks prior to shipment of all major equipment components. Each manual shall be a bound, indexed binder with drawings and parts lists prepared specifically for this project rather than general instructions that are not designed for this project.

- B. As a minimum the manual shall contain:
1. Certified as-built drawings (general arrangement and general arrangement detail drawings).
  2. Erection drawings.
  3. A complete bill of materials for the equipment including the weights of all structural steel components.
  4. Installation and maintenance instructions for the specific equipment including the erection sequence, maintenance and trouble-shooting check points, and complete lubrication procedures with recommended grades of lubricants.
  5. Cut sheets for all equipment items purchased from sub-vendors.
  6. A list of the clarifier manufacturer's recommended spare parts specifically denoting wear items, long delivery items, and all items convenient for stocking as optional replacement items.

## **1.10 DELIVERY**

- A. Fabricated assemblies shall be shipped in the largest sections permitted by carrier regulations, properly match-marked for ease of field erection.
- B. All components shall be erected immediately upon receipt from the clarifier manufacturer or stored in strict conformance with storage recommendations provided by the clarifier manufacturer in the operations and maintenance manual.
- C. The mechanism shall be lubricated in strict accordance with the instructions of the clarifier manufacturer's field service representative. The required lubricants shall be provided by the CONTRACTOR.

## **PART 2 - PRODUCTS**

### **2.01 GENERAL**

- A. Each clarifier mechanism shall be of the center-drive type, supported on a stationary influent column, with the flow entering at the bottom of the influent column and flowing upward to the inlet openings and dispersed into the tank through the EDI and flocculating feedwell. The clarifier shall be designed to remove sludge uniformly from the bottom of the tank.

### **2.02 CENTER DRIVE ASSEMBLY**

- A. The center drive assembly shall consist of an integral motor and primary speed reducer coupled through roller chain and sprockets to a secondary worm/worm gear reducer driving the main gear through a pinion and shall have an integral overload protection system.

- B. All gears and bearings shall be oil bath lubricated with the main bearing totally submerged in oil and the teeth of the main spur gear submerged at least 70 per cent in the oil bath. Oil pumps for lubrication or grease lubricated bearings are not considered appropriate for this application and will not be allowed. The oil reservoir for the main bearing and gear shall have a section of minimum depth 5 inches below the main bearing to positively prevent contamination of the main bearing and gears with condensate or other contaminants. Gear and bearing housings must also be fitted with oil level sight glasses and condensate drains. Condensate must be allowed to drain from a low point of the housing. Condensate and contaminants will not be allowed to drain through the lower pinion bearing.
- C. Drive components will be located via a machined, registered fit to preserve the alignment of key drive components under all load conditions. Inspection of the completed drive unit shall be accomplished at the clarifier manufacturer's shop, with reports of all tests and certifications of material hardness being made available for review at the Engineer's request prior to shipment to the job site.
- D. Major drive components, main gears and bearings must be designed to allow for separate and individual replacement by plant personnel to facilitate quick and economical repairs.
- E. The complete center drive assembly, including the overload protection device, shall be a regularly manufactured in-house product of the clarifier manufacturer. The center drive assembly is a key element in a successful clarifier installation, therefore drive assemblies purchased from third party vendors will not be accepted.
- F. The drive motor shall be minimum 3/4 horsepower and shall be totally enclosed, fan cooled, with a 1.15 service factor, and have bearings with a minimum B10 rating of 50,000 hours. Operating electric current will be 230/460 volt, 3 phase, and 60 hertz. Each motor will be NEMA Design B employing Class F insulation designed for an ambient temperature of 40 degree. C.
- G. The gearmotor primary speed reducer shall drive a secondary worm gear reducer through a #60 roller chain and steel sprockets enclosed in a galvanized 22 gauge steel guard. A constant speed motor shall drive the speed reducer. Sprockets and chain shall be designed for the connected horsepower of the drive with a minimum service factor of 4.0. Provision shall be made for adjustment of chain tension.
- H. The main drive unit shall consist of a worm gear secondary reduction unit, pinion and main spur gear assembly. The secondary reducer shall be a worm/worm gear reducer specifically designed for this application. The worm gear shall be centrifugally cast high strength manganese bronze. The worm shall be hardened alloy steel. A single piece pinion shall be keyed to the worm gear to transmit power from the worm gear to the spur gear. In order to maintain proper alignment between the pinion and the spur gear, the pinion will be supported by bearings both above and

below the spur gear. The bearings shall be fitted into precision machined bearing pilots to positively insure bearing and gear alignment.

- I. The main spur gear material shall be high strength ductile iron per ASTM A536 grade 80-55-06 or equal. The gear shall have a nominal pitch diameter of 40 inches with a 6.0 inch face width or the equivalent nominal spur gear surface area of 754 square inches. Spur gear surface area is defined as the spur gear pitch diameter multiplied by the spur gear face width multiplied by 3.14.
- J. The main gear shall rotate and be supported on a ball bearing assembly provided with four replaceable liner strips fitted into the main gear and turntable base. Liner strips shall be special vacuum degassed carbon corrected alloy steel hardened to a Rockwell hardness of at least 43 to 46 RC. The turntable base shall be a minimum 1 inch thick to insure adequate structural rigidity to properly support the drive bearing and gear.
- K. The main gear and bearing shall be completely enclosed in an ASTM A-48 Class 40A cast iron housing provided with neoprene dust seals. In order to ensure the maximum possible base rigidity and vibration dampening, the gear housing shall be of full sidewall construction, integral with the base. Prior to assembly, the base shall be thoroughly inspected for seep holes or inclusions and given a hydrostatic test to insure no leaks are in the oil containment area. Shop inspection reports must be made available for review. Fabricated steel housings is not allowed.
- L. The drive unit shall be equipped with an electro-mechanical overload control device actuated by thrust from the worm shaft. The pointer shall provide a visual reading of the relative main gear output torque on a 0 to 100 percent graduated scale. The 100 percent reading shall equal the 100 percent drive rating as specified in section 1.03. The control device shall also activate an alarm switch for warning of impending overload, a motor cutout switch for overload protection and a back-up safety motor cutout switch for back up overload protection. In lieu of a back-up safety motor cutout switch a slip clutch assembly will be acceptable upon review by the Engineer. The respective switches in the overload control device shall be factory calibrated and set to the following settings:
  - 1. Alarm - 40% of scale
  - 2. Motor cutout - 85% of scale
  - 3. Back-up motor cutout or slip clutch - 100% of scale.

All drive control components shall be mounted in a weatherproof enclosure of either epoxy coated aluminum construction or stainless steel with a gasket-sealed, removable cover. The pointer shall be covered with a clear plastic enclosure and shall be above the walkway surface for visibility from the walkway. Amperage sensing devices are not acceptable for torque overload protection due to their inability to react quickly enough to prevent damage to the drive. Overload devices with exposed linkage connections will not be accepted due to possible corrosion

problems. Devices which react to rotational movement of the secondary reduction unit will not be allowed due to possible misalignment of gearing created by the movement of the reduction unit.

M. The center drive unit shall be designed for the continuous torque rating as specified in section 1.03. The continuous torque shall be defined as the minimum torque at which the drive mechanism may operate continuously 24 hours per day, 365 days per year, for 20 years, at the specified sludge collector arm speed. Main gear and pinion calculations shall be based upon ANSI/AGMA 2001-C95 standards for rating the pitting resistance and bending strength of involute spur and helical gear teeth. Calculations shall clearly present the values used for the following design parameters:

- |                                     |                             |
|-------------------------------------|-----------------------------|
| 1. Number of pinions                | 6. Allowable bending stress |
| 2. Actual face width                | 7. Pinion pitch diameter    |
| 3. Tooth geometry (I and J factors) | 8. Hardness ratio factor    |
| 4. Load distribution factor         | 9. Elastic coefficient      |
| 5. Allowable contact stress         | 10. Life factor             |

The load distribution factor shall be determined by the empirical method. For parameters which are material dependent, such as allowable contact stress, the calculations shall include a complete description of material and heat treatment used.

Worm gearing shall be designed and rated to equal or exceed the specified continuous torque and life. The basis for rating shall be ANSI/AGMA 6034-B92 standards for durability rating and design of worm gear reducers.

The continuous torque rating for the drive unit shall be the lowest value determined for the gearing.

**2.03 WALKWAY ACCESS BRIDGE AND CENTER PLATFORM**

A. The existing walkway and center platform will be reused including walking surface and handrails.

**2.04 CENTER CAGE AND RAKE ARMS**

A. The center cage shall be of steel box truss construction, with connections for the two (2) sludge removal arms, rotating sludge collection drum and feedwell supports. The top of the cage shall be bolted to the main gear which shall rotate the cage with the attached arms and feedwell. The minimum angle size used for construction of the cage and rake arms shall be 2 inch x 2 inch x 1/4 inch members.

B. The clarifier mechanism shall include two (2) sludge removal arms of steel truss construction, with steel spiral rake blades and adjustable 20 gauge 304 stainless steel



squeegees. The rake blades shall provide complete raking of the basin floor twice per revolution.

- C. The rake blades shall consist of a minimum 3/16 inch thick steel plate. The blades shall be constructed to a logarithmic spiral curve with a constant 30 degree angle of attack. Blade depth shall vary as noted in Article 1.04. Each rake truss support arm shall be provided with the necessary outrigger bracing and other blade support structures, to ensure that the complete blade can be properly located and adjusted in the field.
- D. The rake blades shall terminate in the center to within 1 inch of the rotating sludge collection drum. The 1 inch space shall be sealed with a neoprene seal.
- E. The structural calculations for the rake arm shall include an analysis of the torsional loads from the spiral curve blade.
- F. The cage and rake arms shall be designed such that calculated stresses do not exceed the AISC allowable stress at the drive 100% rating.

## **2.05 SLUDGE COLLECTION MANIFOLD.**

- A. A stationary sludge collection manifold shall be furnished, which shall serve as the lower segment of the center influent/support column and shall form a support base for the upper section of the center influent/support column. It shall be equipped with at least three radially oriented sludge inlet openings which join centrally to the existing RAS pipe as shown on the drawings. The sludge collection manifold shall be provided with two (2) 8 inch diameter clean out ports. Designs with collection devices with collection ports below 8-inches in diameter will not be allowed due to the potential of plugging.

Due to the age and condition of the existing concrete tanks designs which require cutting, core drilling or modifications to the existing tank bottom will not be allowed. All loads on the tank bottom shall be within the footprint of the existing center column, designs which will add loads outside the footprint of the center column will not be allowed.

## **2.06 ROTATING SLUDGE COLLECTION DRUM**

- A. A rotating sludge collection drum shall be provided to collect settled solids raked to the center by the rotating spiral blades. The collected sludge shall be discharged from the tank by way of the RAS sludge pipe as shown on the contract drawings.
- B. The sludge collection drum shall rotate with the center cage and shall be provided with sludge collection ports located directly in front of each rotating spiral rake

blade. The ports shall be sized to collect thickened sludge from the bottom most dense sludge layer to maximize underflow solids concentration.

- C. The rotating sludge drum shall be constructed of ¼ inch steel plate. A neoprene seal shall be provided to seal against the center column. A stainless steel seal shall be provided to seal against the tank floor.

## **2.07 CENTER COLUMN**

- A. A stationary center column shall be provided which shall serve as the influent pipe. One end shall have a 1-1/4 inch support flange for bolting to the foundation with a minimum of eight (8) 1-1/4 inch diameter anchor bolts as shown on the plans. A similar flange shall be provided at the top of the column for supporting and securing the center drive assembly. Minimum center column thickness shall be 1/4".
- B. Influent openings shall be provided in the upper portion of the column to allow unrestricted passage of the flow into the energy dissipating feedwell. Influent velocity shall be reduced by providing a total inlet port area a minimum of 135 percent of the center column cross sectional area.

## **2.08 ENERGY DISSIPATING INLET (EDI)**

- A. The clarifier shall be equipped with an energy dispersion well located inside the rotating flocculation feedwell. The dispersion well shall be designed to dissipate the energy of the incoming flow by way of multiple baffled inlet ports equally spaced around the dispersion well.
- B. The center dispersion well shall include a bottom plate to fit within one inch of the center column. The well shall be constructed of 3/16 inch plate. EDI outlet ports equally spaced around the periphery shall be provided for energy dissipation. The outlet ports shall impart a tangential flow into the outer flocculating feedwell and shall have bottom plates to prevent short circuiting.
- C. The bottom plate of the EDI shall be provided with properly sized drain holes.

## **2.09 FLOCCULATING FEEDWELL**

- A. The flocculating feedwell shall be supported by structural members attached to the rotating center cage. The feedwell shall be fabricated out of 3/16 inch steel plate with upper and lower reinforcing rim angles and stiffeners as required. Properly sized scum ports shall be equally spaced around the feedwell periphery to allow scum to exit from the feedwell at water level.

## **2.10 SURFACE SCUM SKIMMING EQUIPMENT**

- A. Each clarifier shall be equipped with two full radius skimmer arm assemblies to collect and discharge surface scum into a full radius scum trough cantilevered from the tank wall.
- B. Each skimmer arm shall be either a structural steel truss assembly or a fabricated tube assembly connected to the center cage and cantilevered from the rotating feedwell. Tie rods shall be properly located to allow adjustment of the skimmer arm as well as to resist horizontal forces.
- C. Each skimmer arm shall be equipped with a hinged 1/2 inch 60 durometer neoprene wiper blade extending the full width of the arm. The neoprene blade shall be fastened to the arm with stainless steel fasteners with steel back-up bars
- D. The full radius scum trough shall be fabricated from 1/4 inch steel plate and shall be supported from the tank wall as shown on the drawings. The trough and support structure shall be designed for all dead loads plus a 200 hundred pound point load at the feedwell end of the trough with no more than 1/2 inch deflection. The approach ramp of the trough shall be of radial design, having a tapered width and a variable slope that will enable the full length of the skimmer wiper to make simultaneous and continuous contact with the entire ramp along a radial line, at each revolution of the skimmer arm. The trough shall be 8 inches wide with a uniformly sloped bottom to allow scum to discharge toward the tank wall. Fabrication of the trough shall be true and free of warp. A 6 inch schedule 40 pipe connection shall be provided at for connection to the scum drain line.
- E. The clarifier equipment manufacturer shall furnish a flush valve assembly for automatic flushing of the scum trough and scum pipe. The flush valve assembly shall be adjustable to allow 0 to 20 gallons of clarified effluent to enter the scum trough as the skimmer assembly passes over the scum box. The assembly shall consist of a stainless steel lever, UHMW seal plate and neoprene diaphragm mounted to the scum trough. The diaphragm shall be opened and closed by an easily adjustable, submerged actuation arm mounted to the rotating feedwell. The flush volume adjustment mechanism shall be above the water level and shall include at least three settings.

## **2.11 EFFLUENT WEIR AND SCUM BAFFLE**

- A. Effluent weir plates shall consist of 9 inch deep x 1/4 inch thick FRP sections with 2-1/2 inch deep 90 degree V-notches at 6 inch intervals. The weir sections shall be fastened to the tank wall using 304 stainless steel cinch anchor bolts hex nuts and 5 inch diameter FRP washers, allowing for vertical adjustment. To prevent leakage all surfaces between the launder walls and weir plates shall be given a seal coat of suitable mastic by the CONTRACTOR.

- B. The scum baffle plates shall consist of 12 inch deep x 1/4 inch thick FRP sections supported from the tank wall by FRP angle brackets secured with 304 stainless steel cinch anchor bolts and hex nuts, allowing for vertical and radial adjustment.

## **2.12 SURFACE PREPARATION AND PAINTING**

- A. All non-submerged steel shall be sandblasted to SSPC-SP-6 specifications and given one coat of manufacturer's epoxy primer 2-3 MDFT. All submerged steel shall be sandblasted to SSPC-SP-10 specifications and given one coat of manufacturer's epoxy primer 2-3 MDFT.
- B. Prior to assembly of the drive unit, the castings shall have been sandblasted and thoroughly cleaned to remove any foreign particles in the drive base. After assembly, the drive mechanism shall be solvent cleaned and power wire brushed as needed prior to application of manufacturer's standard primer.
- C. Gear motors shall be furnished with manufacturer's standard enamel.

## **2.13 SPARE PARTS**

- A. The following spare parts shall be provided.
  - 1. One (1) sight glass for each main drive housing containing oil.
  - 2. One (1) set of neoprene skimmer wipers for each mechanism.

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. The equipment shall be erected in strict accordance with the manufacturer's recommendations. If needed, a 2" layer of grout shall be applied to the tank floor in strict accordance with the manufacturer's recommendations. Screed boards shall be supplied by the CONTRACTOR.

### **3.02 SERVICE**

- A. The equipment manufacturer shall provide a service representative properly trained in inspection and operation of the mechanism to approve the installation, certify that the torque settings of the drive overload protection device are correct, perform the torque test and instruct the OWNER's personnel on maintenance and operation. If additional service is required due to the mechanisms not being fully operational, at the time of service requested by the CONTRACTOR, the additional service days will be at the CONTRACTOR's expense.

### **3.03 TORQUE TEST**

- A. The clarifier mechanism shall be field torque tested by the CONTRACTOR with input from OVIVO USA, INC. The purpose of the torque test is to verify the structural integrity of the mechanism structural steel design and center drive unit. The testing shall be carried out under the supervision of the equipment manufacturer's representative and as approved by the Engineer before the mechanisms are accepted and placed into operation.
- C. The torque test shall consist of securing the rake arms by cables to anchor bolts installed by the CONTRACTOR in the tank floor at locations specified by the equipment manufacturer. A load shall be applied gradually to the scraper arm by means of a ratchet lever and cylinder connected to the cable assembly.
- D. The magnitude of the applied load shall be measured by calculating the torque from the distance of the line of action of each cable to the center line of the mechanism. A reading shall be taken at the 100% value of the drive design torque.
- E. The manufacturer's service representative shall verify that the alarm, motor cut-out, and back up safety motor cut-out switches are properly set and are in proper operation to protect the clarifier mechanism as specified.

END OF SECTION

## **SECTION 11378- FINE BUBBLE MEMBRANE DISC AERATION SYSTEM**

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### **PART 1 – GENERAL**

#### **1.01 – SCOPE OF WORK**

- A. Contractor shall furnish all materials, equipment, and services required for the fine bubble aeration system as shown on the contract drawings and contained herein. Fine bubble aeration system shall constitute: diffusers, distribution headers, droplegs, anchor bolts, supports, expansion joints, and all necessary hardware required to furnish a complete installation as shown on the contract drawings.

#### **1.02 – SUBMITTALS**

- B. Pre-Submittal Requirements
  1. Whenever an item or material or equipment is specified or described in the contract documents, the specification or description is intended to establish the type, function, appearance and quality required.
  2. All equipment suppliers wishing to submit a bid shall, 10 days prior to the Bid Date, provide a letter signed by an authorized representative of the company certifying:
    - a. “The undersigned hereby attests that he/she has examined all applicable contract drawings and specifications, and certifies that the equipment that he/she proposes to furnish and deliver meets the requirements of Specification 11378, is suitable for installation as presented in the contract drawings and specifications, and will provide satisfactory performance at the design criteria specified.”
    - b. Any deviations to the Plans or Specifications shall be accompanied by detailed written justification.
- C. Submittal Requirements
  1. Certified dimensional drawings of the aeration system, including plan, elevation, and appropriate cross-section views.
  2. Certified drawings showing details of the diffusers, diffuser holders, piping, pipe supports, pipe joints and condensate evacuation system.
  3. Certified anchor bolt layout drawings.
  4. Materials and manufacturing specifications.
  5. Oxygen transfer and system headloss calculations.
  6. Certified oxygen transfer efficiency curves stamped by a registered Professional Engineer.
  7. Installation, operation and maintenance instructions.
  8. List of any exceptions taken to the plans and specifications including written justification.

#### **1.03 – SYSTEM DESCRIPTION**

- A. Aeration system design requirements:

1. Designed to operate under environmental conditions of the plant, including the following.
  - a. Intermittently submerged and exposed to the coastal atmosphere.
  - b. Wastewater temperatures ranging from 68 degrees Fahrenheit to 90 degrees Fahrenheit.
  - c. Ambient air temperatures from 40 degrees Fahrenheit to 100 degrees Fahrenheit.
  - d. Submerged in domestic sewage with constituents of typical municipal wastewater.

**B. Performance Requirements**

1. Design the aeration system for installation in the following tanks.

Tank Dimensions	Aeration Tank 2	Aeration Tank 3 – Pass 3
Length	160'-0"	48'-0"
Width	65'-0"	25'-6"
Water Depth	17'-6"	14'-5"

**C. Design the aeration system for the following.**

	Aeration Tank 2	Aeration Tank 3 – Pass 3
Actual Oxygen Requirements	50,000 lbs O <sub>2</sub> /day	5,000 lbs O <sub>2</sub> /day
DO Concentration (Max day)	1.0 mg/L	1.0 mg/L
Minimum Water Temp	19 degC	19 degC
O <sub>2</sub> transfer rate in process water relative to clean water ( $\alpha$ -value)	0.5	0.5
Air Rate per diffuser	1.6	1.6
Diffuser Submergence (ft.)	16'-6"	13'-5"

The minimum diffuser quantity per tank shall be determined by the manufacturer based on the parameters in the table above.

- D.** Design the aeration system with a diffuser centerline spacing not to exceed 4 feet from any adjacent diffuser, wall or obstruction to maximize the oxygen transfer efficiency and minimize solids deposition.

**PART 2 – PRODUCT**

**2.01 – ACCEPTABLE MANUFACTURERS**

- A.** Acceptable fine bubble disc diffuser manufacturers are:
1. Aquarius Technologies, Inc.
  2. SSI Aeration Inc.
  3. Sanitaire Division of Xylem Water Solutions USA Inc.

## 2.02 - MATERIALS, MANUFACTURING & FINISHING

### A. Stainless Steel

1. Fabricate all welded parts and assemblies from sheets, plates, or bars of 304L stainless steel with a 2D finish conforming to ASTM A240, A554, A774 and A778.
2. Fabricate all non-welded parts and assemblies from sheets, plates, or bars of 304 stainless steel conforming to ASTM A240, or ASTM A276.
3. Furnish all nuts, bolts, washers, and anchors bolts from 18-8 series stainless steel.
4. Weld in the factory with ER 316L filler wire using MIG, TIG or plasma-arc inert gas welding processes. Provide a cross section equal to or greater than the parent metal.
5. Clean all welded stainless steel surfaces and welds after fabrication to remove weld splatter and finish clean all interior and exterior welds by full immersion pickling and rinse with water to remove all carbon deposits and contaminants to regenerate a uniform corrosion resistant chromium oxide film per ASTM A380 Section 6.2.11, Table A2.1 Annex A2 and Section 8.3.

### B. PVC

1. Fabricate 4 inch diameter manifolds and air distribution headers of SDR 33.5 PVC conforming to ASTM D1784 and D3034.
2. Fabricate manifolds 6 inch diameter and larger of Schedule 40 PVC conforming to ASTM D1784, D1785 and D2466.
3. Fabricate diffuser holders, retainer rings and subplates of PVC material conforming to ASTM D1784.
4. PVC components shall contain a minimum 1.5 percent titanium dioxide to minimize ultraviolet light degradation.

## 2.03 – EQUIPMENT COMPONENTS

### A. Manifolds – Provide a PVC manifold for connection to the air distribution headers.

1. Fabricate manifolds in sections up to 25 feet in length.
2. Connections between separate manifold sections and between the manifold and air distribution headers shall be threaded union or flanged joints to prevent rotation and blow apart. All joints shall be factory solvent welded.
3. Design manifolds to withstand a 130° F mean wall temperature.

### B. Air Distribution Headers and Diffuser Holders

1. Fabricate air distribution headers in sections up to 24 feet in length.
2. Connections between air distribution header sections shall be threaded union or flanged joints to prevent blow apart and rotation. All joints shall be factory solvent welded.



3. Design air distribution headers to withstand a 130° F mean wall temperature.
4. Design threaded union joints with spigot and socket ends joined with a threaded ring and sealed with an O-ring gasket.
5. Threaded unions will provide an uninterrupted 360° rotation to provide for leveling adjacent distributors. Unions with spline locks or ratchets will not be acceptable.
6. To prevent damage to the joint, the union will provide the anti-rotation feature through the O-ring, spigot and socket.
7. Threads on union joints shall be a minimum of 0.013 square inches to provide adequate strength of the socket and retainer ring.
8. Flange joints shall be Van Stone style follower flanges with 150lb drilling and stainless steel hardware.
9. Diffuser holders shall incorporate diffuser holder and membrane support plate as a single unit. Multiple piece assemblies will not be acceptable.
10. Diffuser holders shall be factory bonded to the crown of the distributor with one continuous contact area of 13 square inches minimum to ensure structural integrity and strength.
11. Diffuser holders must be factory solvent welded to the pipe to maximize adhesion.
12. Diffuser holder must be ultrasonically staked to the pipe to maximize a positive air seal.
13. The diffuser holders shall be attached to the distributor piping following application of primer along the crown of the pipe, mechanically scrubbed and allowing sufficient activation time. Solvent shall be applied to the pod to insure full coverage without voids at the pod to pipe interface.
14. The holder shall be applied to the pipe immediately followed by an ultrasonic weld to create a hermetic seal and securely hold the holder in place while the solvent sets and cures.
15. Diffuser holders shall be attached to the pipe with no more than +/- 1 degree angular variation from top dead center, and no greater than +/- 1/8” lateral spacing variation to insure diffuser uniformity within the grid piping.
16. Air distribution headers and diffuser holders shall be able to resist a dead load of 200 lbs applied vertically to the outer edge of the diffuser holder.
17. Provide end caps at the end of each air distribution header.

C. Pipe Supports – Provide each section of manifold and air distribution header with a minimum of two supports.

1. Design all supports to allow for thermal expansion and contraction forces over a temperature range of 125° F and to minimize stress build up in the piping system.
2. Design supports to be adjustable without removing the manifold or air distribution header from the support.
3. Manifold Support – 6-inch diameter and larger
  - a. Dual anchor supports shall be utilized.
  - b. Support spacing shall be limited to a maximum of 8 feet.

- c. Design supports to include guide straps, support structure and two anchor bolts.
  - d. Guide straps shall be fabricated from minimum 2 inch wide, 12 gauge stainless steel to eliminate point load on manifold and minimize binding.
  - e. Design support to allow +/- 2 inches of vertical adjustment for leveling of manifold within 1/4 inch of a common plane.
  - f. Attach supports to tank floor with stainless steel anchor bolts.
4. Air Distributor and Manifold Supports – 4-inch diameter
- a. Dual anchor supports shall be utilized.
  - b. Support spacing shall be limited to a maximum of 7.5 feet.
  - c. Design supports to include guide straps, support structure, locating plate and a single anchor bolt.
  - d. To prevent improper installation, the locating plate shall be able to be installed in either of two directions relative to the support.
  - e. Guide straps shall be fabricated from minimum 1 1/2-inch wide, 18 gauge stainless steel and have contoured bearing surfaces with chamfered edges to minimize binding and resistance to movement of air distributor under full buoyant uplift load.
  - f. Design guide straps with 1/8 inch clearance around distributor so strap is self-limiting and cannot be over tightened.
  - g. Design support to allow +/- 1 1/2 inches of vertical adjustment for leveling air distribution headers within 1/4 inch of a common plane.
  - h. Attach supports to tank floor with stainless steel anchor bolts designed for installation in 4,000 psi concrete.

D. Diffuser Assemblies – Furnish diffuser assemblies including diffuser, holder, retaining ring and air flow control orifice.

- 1. Membrane Diffuser
  - a. Incorporate an integral check valve into the membrane diffuser.
  - b. Design and test diffusers at point of manufacture for a dynamic wet pressure (DWP) of 12 inches +/- 20% water column @ 1.0 SCFM/diffuser and 2 inches submergence.
  - c. Visual Uniformity – Observe diffusers for uniform air distribution across the active surface of the diffuser at 1.0 SCFM/diffuser and 2 inches submergence. Active surface is defined as the perforated horizontal projected area of the diffuser.
  - d. Quality Control – Test diffuser using primary sampling criteria outlined in Military Standard 105E.
  - e. Manufacture the circular membrane diffuser with an integral O-ring of EPDM synthetic rubber compound with precision die formed slits.
  - f. Add carbon black to the material for resistance to ultraviolet light.
  - g. Design diffuser as one piece injection molded part with a minimum thickness of 0.080 inches for 9 inch diameter unit.
  - h. Limit the maximum tensile strength of the diffuser to 10 psi when operating at 2.4 SCFM/sq. ft. of material.

- i. EPDM membranes shall conform to the following physical properties:
  - Membrane Material: EPDM
  - Tensile Stress: 1200 PSI Min.
  - Durometer: 58 +/- 5 Shore A
  - Elong - % Ret 70 Hrs: 75% Max
  - Elong - % Min At Break: 350% Min
- 2. Diffuser Holders
  - a. Design holder with air flow control orifice, integral diffuser support plate and removable retainer ring. Holder to provide support for the diffuser and seal the diffuser in the holder to prevent air leakage around the O-ring.
  - b. Design retainer ring threads with minimum cross section of 1/8 inch to allow for one complete turn to engage threads.
- E. Anchor Bolts
  - 1. Design a mechanical or adhesive anchor bolt system for embedment in 4,000 psi concrete with a pullout safety factor of 10.
- F. Condensate Evacuation System - Provide a condensate evacuation system to substantially drain the submerged aeration piping system for each aeration grid.

**PART 3 – EXECUTION**

**3.01 – INSTALLATION AND TRAINING SERVICES**

- A. Manufacturer shall provide 1 service trip to include the following:
  - a. Inspection services to be provided for 2 days to verify the proper installation of the aeration system.
  - b. Training services to be provided for 1 day to instruct owner’s personnel on aeration system operation and maintenance.

**3.02 – EQUIPMENT WARRANTY**

- A. The manufacturer shall provide a 5-year extended warranty on all parts and materials. The extended warranty shall provide for replacement of all components which physically fail during the first 5 years of operation.

**3.03 – SPARE PARTS**

- A. Spare parts: Furnish 30 spare diffusers.
- B. All spare parts should be labeled on the outside of the container what equipment the parts belong.

END OF SECTION

11378-6