ORIGINAL
(TOJ)

STORMWATER UTILITY INFRASTRUCTURE REPAIRS UNIT PRICE CONTRACT (S2029)

EXECUTED CONTRACT

MAY 2020

TODD R. WODRASKA	MAYOR
ILAN KAUFFER	VICE-MAYOR
RON DELANEY	COUNCILOR
JIM KURETSKI	COUNCILOR
CAMERON MAY	COUNCILOR
MATT BENOIT	TOWN MANAGER
DAVID L. BROWN	DIRECTOR OF UTILITIES

TABLE OF CONTENTS

Technical Specifications – Table of Contents 3
Invitation to Bid 5
Instructions to Bidders 7
Bid Proposal 19
- Bid Schedule of Values 20
- List of Subcontractors/Suppliers 22
- Qualification Requirements 23
- Contractor Safety Qualifications/Requirements 32
- Contractor Safety Qualification Form 34
- Sworn Statement 37
- Trench Safety 40

Bid Bond 41
Notice of Intent to Award 43
Notice of Award 44
Agreement (Contract) Between Owner and Contractor 45
Payment Bond 52
Performance Bond 56
Opinion of Town Attorney 60
Notice to Proceed (NTP) 61
General Conditions to EJCDC Standard General Conditions (2018 Edition)
Supplementary Conditions
Technical Specifications
Appendices

Technical Specifications – Table of Contents

SECTION	TITLE
DIVISION 1 – GENERAL REQUIREMENTS	
01010	Summary of Work
01025	Measurement and Payment
01030	Hurricane Preparedness
01090	Reference Standards
01200	Project Meetings
01300	Submittals
01400	Quality Control
01500	Construction Considerations
01510	Temporary Utilities
01520	Maintenance Facilities and Sequence
01530	Protection of Existing Facility
01550	Site Access and Storage
01560	Temporary Environmental Controls
01570	Traffic Regulations and Maintenance of Traffic
01600	Equipment and Materials
01700	Project Closeout
DIVISION 2 – SITE WORK	
02110	Clearing and Grubbing
02222	Excavation and Backfill for Utilities
02500	Surface Restoration
02510	Asphaltic Concrete Pavement
02574	Pavement Removal and Replacement
02580	Pavement Marking
02750	Portland Cement Concrete Paving
02751	Preparatory Cleaning and Root Removal
02752	Stormwater Flow Control
02753	Television Survey
02754	Storm Sewer Inlets and Manholes
02757	Point Repair of Storm Sewers
02762	Chemical Root Treatment

SECTION	TITLE
02763	Chemical Grouting
02764	Cured In-Place Sectional Pipe Lining
02765	Internal Joint Seal
02766	Spiral Wound Pipe Liner
02768	Slip Lining Pipe System
02934	Sodding

DIVISION 3 – CONCRETE

03305	Concrete and Grout
03480	Precast Concrete Manholes, Handholes and Vaults

DIVISIONS 4 THROUGH 14 – NOT USED

DIVISION 15 - MECHANICAL

15002	Reinforced Concrete Pipe and Fittings

DIVISION 16 – NOT USED

APPENDICIES

Appendix 1	Stormwater Construction Details SW-1 to SW-20

ADDENDUM NO. 1
TO
CONTRACT DOCUMENTS

June 15, 2020

PROJECT TITLE: TOWN OF JUPITER
STORMWATER UTILITY INFRASTRUCTURE REPAIRS
UNIT PRICE CONTRACT (S2029)

TO: All Plan Holders of Record

This addendum forms a part of the Contract Documents and modifies the original Project Documents as noted below. **Acknowledge receipt of this Addendum in the space provided on the Bid Proposal form.**

GENERAL

PRE-BID MEETING

A non-mandatory, pre-bid meeting for this project was held virtually on June 10th, 2020; the meeting minutes and attendance list from that meeting are included as part of this addendum.

IN THE FRONT ENDS

INSTRUCTIONS TO BIDDERS

27. OPEN END CONTRACT

DELETE Paragraph 27.3 in its entirety and **REPLACE** it with the revised Paragraph 27.3 as included in this addendum.

27.3 The Initial term of the Contract will be two years (730 calendar days) from the date of Notice to Proceed. Owner may at Owner's sole discretion renew its Contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years, in accordance with the Town of Jupiter's Purchasing Policy and terms of the original Contract. Renewals will be in writing by change order to the Contract and are subject to the same terms, conditions, and

unit pricing set forth in the initial Contract and any written amendments/change orders signed by both parties (Owner and Contractor). No compensation shall be made for costs associated with renewal of the Contract. Renewals are contingent upon satisfactory performance evaluations by the Owner and subject to the availability of fiscal year funding approved by the Jupiter Town Council. Contractor may elect not to extend the Contract with 90 days written notice to Owner. Owner is not obligated to extend the Contract. Regardless of anything to the contrary, this Contract may be terminated by the Owner at any time and for any reason. Further, the Contractor agrees that it will not be entitled to any claims and/or damages resulting from such termination, including, but not limited to, lost profits, direct or indirect damages, and consequential special or punitive damages.

AGREEMENT (CONTRACT) BETWEEN OWNER AND CONTRACTOR

ARTICLE 3. CONTRACT TIME

DELETE Paragraph 3.3 in its entirety and **REPLACE** it with the revised Paragraph 3.3 as included in this addendum.

3.3 The Initial term of the Contract will be two years (730 calendar days) from the date of Notice to Proceed. Owner may at Owner's sole discretion renew its Contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years, in accordance with the Town of Jupiter's Purchasing Policy and terms of the original Contract. Renewals will be in writing by change order to the Contract and are subject to the same terms, conditions, and unit pricing set forth in the initial Contract and any written amendments/change orders signed by both parties (Owner and Contractor). No compensation shall be made for costs associated with renewal of the Contract. Renewals are contingent upon satisfactory performance evaluations by the Owner and subject to the availability of fiscal year funding approved by the Jupiter Town Council. Contractor may elect not to extend the Contract with 90 days written notice to Owner. Owner is not obligated to extend the Contract. Regardless of anything to the contrary, this Contract may be terminated by the Owner at any time and for any reason. Further, the Contractor agrees that it will not be entitled to any claims and/or damages resulting from such termination, including, but not limited to, lost profits, direct or indirect damages, and consequential special or punitive damages.

IN THE TECHNICAL SPECIFICATIONS

SECTION 01010 SUMMARY OF WORK

DELETE Section 01010 in its entirety and **REPLACE** with revised Section 01010 included in this addendum.

SECTION 01030 HURRICANE PREPAREDNESS

DELETE Section 01030 in its entirety and **REPLACE** with revised Section 01030 included in this addendum.

Pre-Bid Meeting Agenda
June 10, 2020 11:00 AM

Stormwater Utility Infrastructure Repairs
Unit Price Contract (S2029)

Location: Virtual Pre-Bid Meeting on zoom.us
Zoom Meeting ID: 521 761 2434
Zoom Meeting PW: S2029

I. Meeting Attendance

Attendance at the virtual meeting was documented based on participants logged into the Zoom meeting. Additionally, the Town conducted a roll call. Meeting attendees were recorded on the sign-in sheet. A copy of the sign-in sheet will be included with the meeting minutes posted to Demand Star.

II. Introductions

Rebecca Wilder – Town of Jupiter Utilities Senior Engineer
David Rotar – Town of Jupiter Utility Services Manager
Other Attendees

III. DemandStar

The Town reviewed the process for obtaining bid documents for the project by reading the following:

Bid documents are available through Demandstar.com. Instructions for obtaining plans and specifications from www.demandstar.com are provided in the Invitation to Bid and the Instructions to Bidders in the Front End Bid Documents for the project. All addenda to the Bid Documents will also be posted to Demandstar.com

Bidders do not need to be a member of demandstar.com to obtain bid documents. Documents can be downloaded for $5.00 from Demandstar by signing up for a free agency subscription for the Town of Jupiter at www.demandstar.com. Hard copies of bid documents may also be purchased from Demandstar by visiting www.demandstar.com or email demandstar@onvia.com. Payment for Bid Documents is non-refundable.

Bidders are responsible to use complete sets of Bid Documents including Addenda for preparing Bids. The Town is not responsible for any errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

IV. Bid Opening

Sealed bids must be delivered to the Town of Jupiter at the office of the **Town Clerk**, 210 Military Trail by 2:00 pm on Tuesday, June 30, 2020. Bids received after this time will not be accepted. Bids will be publicly opened and read aloud in the Town Council Chambers.

V. Questions Concerning the Bid

Questions concerning the bid will be answered by addendum through Demandstar.com. All questions shall be directed to Rebecca Wilder in writing by fax (561) 747-5634 or email rebeccaw@jupiter.fl.us (with Project Name in the subject of the email). Emails should be delivered with a Read Receipt requested to confirm successful receipt by the Town. Oral and other interpretations or clarifications will be without legal effect.

If questions are emailed and you do not receive a response to your question within 24 hours, please call Rebecca at 561-741-2635 as there is a chance that your email was held up in the Town's spam filter.

VI. Bid Security

Bid Security in the amount of five percent (5%) of the value of the initial contract term ($1,015,000) must accompany each bid in accordance with the Instructions to Bidders.

VII. Contractor Qualifications

- **The successful bidder must be a licensed General Contractor or a licensed Underground Utility and Excavation Contractor in the State of Florida.**
- The successful bidder must hold a Town of Jupiter occupational license at the time of contract award.
- The successful bidder must have completed and submitted both the Safety Qualification Form and the Bidder's Qualification Form with their bid.
- Contractor must perform a minimum of 60% of the work of this contract with his/her own forces.
- If the Bidder proposes to utilize a Subcontractor(s) for any components of work under this contract they shall provide the name, address, qualifications and license of their proposed Subcontractor(s) on separate sheets.
- The successful bidder must have past projects of similar type and magnitude that have been completed within budget and on schedule, he/she has sufficient manpower and equipment to complete the Work, that past projects have been managed professionally and construction quality and field supervision are professional and of best industry practice.

- The Town will evaluate experience and conduct reference checks as part of the bid evaluation process to assess whether Bidder is qualified

VIII. Contract Duration

The contract duration is as follows:
Substantial completion is **730** calendar days beginning on the date of Notice to Proceed and for final completion is **730** calendar days beginning on the date of Notice to Proceed.

The Contract does contain provisions to renew the contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years.

IX. Permits

The work associated with this contract is maintenance work and is not subject to Town or County drainage permit requirements. All work must meet federal, county and local safety standards including but not limited to meeting the OSHA Trench Safety, Town of Jupiter's NPDES requirements, applicable maintenance of traffic requirements, hurricane preparedness and other miscellaneous permit requirements. In the event work does require a Town or County Permit, Owner will assist Contractor with preparing and submitting Engineering drawings/plans and permit applications and pay any associated permit fees.

Miscellaneous permits required to be obtained and paid for by the contractor include: tree removal permits, dewatering permits, NPDES NOI permits, maintenance of traffic approvals. Contractor is responsible to pay for any permits and/or fees associated with any of these types of permits.

X. Project Description

Provide stormwater utility infrastructure repairs, replacements and/or installations on an as needed basis utilizing one or a combination of a number of unit price bid items. These items may include, but are not limited to: bypass pumping; realigning or replacing inlet/manhole castings; sealing and/or grouting storm water pipe joints; installing new manholes/conflict boxes/catch basins; pipe to structure connection repairs; storm water pipe point repairs; slip lining; cured in place lining; canal dredging/cleanout and restoring miscellaneous surface improvements such as asphalt roadway replacement, pavement overlay, concrete sidewalk replacement, concrete curb and gutter replacement, sod replacement, fence replacement and other improvements as described by the Bid Documents.

The Bid Schedule of Values is inclusive of the various tasks expected to be implemented under this Contract, and represents a "menu" of options from which the Town may select to complete various maintenance, repair and/or replacement of Stormwater system components. Quantities provided for each Bid Item in the Bid Schedule of Values are not necessarily the quantities that will be completed during the contract but instead are provided as a means for evaluating bids and obtaining balanced bids.

The Bid Documents provide a table of estimated funding for each year of the contract, which is based on the projected budgets for stormwater rehabilitation and maintenance in those respective years. However, the amount of work authorized under this contract is dependent upon fiscal year funding.

The Town will notify the Contractor when Stormwater utility infrastructure repair needs are required. The Contractor is expected to submit a proposed scope of work to the Town for review and approval. The scope of work must include a detailed description of work to be performed corresponding to items listed by Task in the Bid Schedule of Values. Upon receipt and approval, the Owner will issue a work authorization to Contractor to begin work. If deviations from this scope of work must occur, the Contractor shall submit a revised proposal with changes clearly outlined prior to the commencement of additional work

For non-emergency work orders, the Contractor shall provide the Town with a detailed scope of work and proposal with supporting documentation within ten (10) days. The Town will provide comments or approval of the proposal within five (5) days. The Town will provide the Contractor with a Work Order Authorization within ten (10) days of the Town's approval.

For emergency work orders, the Contractor shall respond and be actively working on the site within 24-hours. The Contractor will be required to submit an estimated cost for labor and materials for which the Town will issue an emergency purchase order.

XI. Contract Administration

1. The Town of Jupiter will be performing the contract administration and field observation services on this project.

2. Progress Meetings: upon contract execution, the Town will schedule a pre-work meeting with the Contractor to discuss items including contract administration, upcoming work projects, process for issuance of work orders and application for payments, shop drawings and submittals, and other appropriate matters. Throughout the Contract duration, the Contractor shall be prepared to conduct a site visit with the Town upon the Town's request for a proposal to complete

maintenance work. The purpose of the site visit meeting will be to discuss and determine the detailed scope of work including MOT, existing conditions, restoration needs and any other factors that may determine or affect the scope of work. Prior to commencement of a Work Order Project, a pre-construction conference will be held a mutually agreed time and place and shall be attended by the Contractor, Superintendent and any subcontractors as appropriate. Additional progress meetings may be scheduled by the Town, as required, and shall be attended by the Contractor or Contractor's representative; other attendees such as subcontractors may attend as well. The Contractor's representative at the meeting musts have authority to make decisions on behalf of the Contractor.

3. Storage and Laydown Area: The Contractor may use TOJ Right-of-Way for staging, storage and laydown areas; these areas must be kept out of vehicular clear zones and not impede any sight visibility triangles.

4. Safety: During construction, trench safety must carefully be monitored during all phases of the project. The Bidder will be required to complete and submit all the required forms concerning trench safety and include them with their bid. For any work completed at the Town's Water Plant, the Contractor and workers will be required to attend a Safety Orientation Meeting prior to commencement of the project.

5. Water for Construction Purposes: There will be no charge to the Contractor for water usage associated with this Contract unless it is determined by the Owner that the Contractor is being wasteful with the water. It is the Contractor's responsibility to purchase and obtain a temporary hydrant meter from the Jupiter Utilities Department.

6. Measurement and Payment: Bidder should closely review Section 01025, Measurement and Payment in preparing a bid. This section provides guidance and clarification to the costs that are to be included in the various bid items. Bidders are responsible to notify the Owner of any items not specifically called out in Section 01025 for which they feel there should be a bid item. Any cost that Bidder believes to be necessary to fulfill the Contract requirements but is not specifically identified in Section 01025 should be included in the Bid Item that Bidder deems to be most appropriate. Bidders are advised that payment for Bid Items paid for on an hourly basis will be paid for actual hours worked. Detailed work logs, invoices, vendor receipts, etc. are required to be maintained and submitted with each pay application as backup for requested pay items and associated quantities where applicable.

XI. Other Items Discussed

- Miscellaneous materials, equipment and services may be required to complete a requested project that are not already included in the Bid Schedule of Values. The Contractor shall detail these items in the proposed Scope of Work and include the appropriate mark-up as detailed in the General Conditions of the Contract: 15% for materials and equipment and 5% for subcontracted services (i.e., MOT). The Contractor may be required to obtain prices from up to three (3) vendors for the Town's review. The Town may direct purchase the materials or equipment as detailed in the Supplementary Conditions of the Contract. In either situation, it will be the Contractor's responsibility to provide material quantities, take receipt of delivery, schedule and coordinate with the vendor.

- Contractors shall provide adequate notice prior to starting work

- There were no questions by attendees during the pre-bid meeting

Meeting ended at: 11:30am

cc: Demandstar
Amanda Barnes/S2029 Meeting Minutes File
Meeting Attendees

Non-Mandatory Pre-Bid Meeting Attendance Sheet
Town of Jupiter Utilities
Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

June 10, 2020
11:00 AM

	Name	Company Name	Phone Number	Email Address
1	Rebecca Wilder	Town of Jupiter	561-741-2635	RebeccaW@jupiter.fl.us
2	David Rotar	Town of Jupiter	561-741-2701	DavidR@jupiter.fl.us
3	James Donaldson	Nu Pipe	843-764-7223	jamie@nupipeus.com
4	Tom Pearse	Ferreira Construction	772-286-5123	tpearse@ferrreiraconstruction.com
5	Van Williams	Deevan	561-844-5518	vwilliams@deevaninc.com
6	Clark Cryer	Johnson Davis	561-718-4531	ccryer@johnsondavis.com
7	Ron Rossi	DS Eakins	561-842-0001	ron@dseakins.com

SECTION 01010 (REVISED ADDENDUM 1)

SUMMARY OF WORK

PART 1 – GENERAL

1.01 GENERAL

A. The purpose and intent of this Contract is to establish an hourly priced contract for the provision of crews with equipment to be used by Town of Jupiter Utilities Department to perform miscellaneous stormwater utility infrastructure maintenance, repairs, and or improvements through the issuance of individual Work Orders. Crews and equipment shall be available on an "as needed" basis with no guarantee by the Town of the amount of usage. Contractor shall be prepared to provide crews and equipment to respond to non-emergency and emergency work as well as hurricane and natural disaster related events.

B. For all non-emergency work orders, the Contractor will be required to submit a materials list with quantities, including restoration, with pricing from at least two different vendors for those items not included in the Bid Schedule of Values for the Town's consideration. The Town may direct purchase the materials under the Sales Tax and Use Program (described in the Supplemental Conditions) or ask the Contractor to purchase materials allowing a fifteen percent (15%) mark up on material pricing. Contractor shall also provide pricing for any subcontracted work as required to complete the Work. The allowable mark up on sub-contractor pricing will be five percent (5%). If Town is to direct purchase materials under the Sales Tax and Use Program, Contractor shall provide the Town with the materials list and quantities, coordinate with vendor for ordering, and delivery of materials, and haul the materials as needed to the job site.

C. For emergency work orders the Contractor will be required to submit an estimated material list with quantities and pricing, to the extent practical, including restoration for the Town's for approval. The Contractor will be responsible for the purchase of the materials, material delivery, schedule and all coordination with the vendor in emergency repair situations. Allowable Contractor mark up on materials is fifteen percent (15%) and on subcontracted work is five percent (5%).

D. For hurricane or natural disaster related response, the Contractor will be required to submit a Letter of Commitment (LOC) to the Town within fourteen (14) days of the date of the Notice to Proceed. The LOC shall detail the Contractor's ability to be available on an as-needed, on-call basis for hurricane or natural disaster events along with emergency labor and equipment rates. The LOC and emergency response activities shall

be for work related to hurricane or natural disaster preparations prior to the event and/or recovery activities immediately following the event that are outside of and in addition to Contract Work. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response and will be paid at the labor and equipment rates provided in the LOC.

E. Normal work hours under this Contract are Monday-Friday, 7:00am - 5:00pm. Work requiring inspection by Town representatives shall be scheduled to occur between 8:00am – 4:00pm, Monday-Friday. No work will be permitted on weekends, Town observed holidays, or outside of normal work hours without written approval by the Town. Contractor must request in writing, from the Town, permission to work outside of normal work hours at least one week in advance.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Furnish all labor, equipment, and materials (if applicable) to perform miscellaneous stormwater utility infrastructure maintenance, repairs, and/or improvements at the direction of the Town.

B. Prior to construction, the Contractor shall identify existing utilities. The Contractor will be responsible for the coordination of his work with the associated utility owners and permitting agencies having jurisdiction over the specific locations to be verified.

C. The Work may include providing temporary storm water facilities, bypass pumping or plugging, dewatering, and other appurtenant and miscellaneous items and work for a completed project. Sound attenuation shall be provided by Contractor for dewatering and by-pass pumps as needed to comply with the Town of Jupiter Noise Ordinance. Town will review each project with Contractor before asking Contractor to provide a proposal for the Town's review. Upon acceptance, the Town will provide a notice to proceed through issuance of a work order for the project.

D. Work shall be performed to minimize, to the greatest extent practical, traffic disruption and/or storm sewer downtime. Work must be coordinated, in advance, with utility personnel, affected residents, public and private entities, and/or regulatory agencies.

E. Acceptable Maintenance of Traffic (MOT) is the responsibility of the Contractor. Contractor shall submit MOT plans for approval to the Town and appropriate regulatory agencies before work begins with the cost of MOT included in the proposal for Work Order.

F. Contractor's Duties:

1. Contractor shall be a Florida licensed underground contractor. Equipment operators must be fully licensed, as applicable, and competent in the use of the assigned equipment. Failure to comply with any of these requirements is sufficient cause to terminate contract because of default by the Contractor.

2. The Contractor will be responsible for repairs and maintenance of its equipment. The equipment will be operated by the Contractor and kept in good working condition, including all grease, oil, parts and fuel as necessary.

3. Contractor's equipment deemed defective by the Town of Jupiter representative shall be promptly removed from the site. Personnel employed either directly or indirectly by the Contractor, who are deemed to be incompetent, inept or unfit to perform the work in the opinion of the Town of Jupiter Project representative, shall be promptly removed from the project under this Contract, and such personnel shall not again be employed to work on the project. Failure of the Successful Bidder to remove defective equipment or incompetent personnel may result in the termination of this Contract.

4. Subcontractors (when used) shall work directly for the Contractor and Contractor shall have a representative on site when sub-contractor is working.

5. Contractor is responsible to schedule and coordinate field materials testing services (i.e., density testing, concrete cylinders, etc.) with the Town's contracted geotechnical testing lab assigned to this contract. Contractor shall keep Town's Field Representative informed of scheduled testing services and Town's Field Representative must be present while field testing services are being performed. Town will pay for field testing services unless Town was not informed of scheduled testing and therefore not present or test results are unacceptable.

6. <u>In the event of a hurricane or natural disaster, the Town will advise the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Town in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Town's facilities prior to an event and respond to the Town's facilities immediately following an event.</u>

7. Review and incorporate Town-reviewed shop drawings, product data, and samples into the construction of the project.

8. Demolish, haul and dispose of, in a legal manner, all materials scheduled for demolition.

9. Receive and unload products at site; inspect for completeness or damage jointly with Town.

10. Repair or replace items damaged after receipt.

11. Arrange for product delivery to site.

12. Handle, store, protect and install all delivered products.

13. Submit claims for transportation damage and replace damaged, defective, or deficient items.

14. Arrange for manufacturers' warranties, inspections, and service.

15. Provide the Town with a one-year warranty on all equipment and workmanship from the date of substantial completion of each work order.

G. No guarantee is expressed or implied as to the total range and/or quantity of bid items to be issued in Work Orders under this contract. Estimated quantities on the Bid Schedule of Values are for Bid comparison purposes only. The Town reserves the right to issue Work Orders as and when required for proposed work for any, all, or any combination of bid items thereof. Town does not guarantee any value of work to be performed under this Contract.

H. Specific work orders for stormwater facilities and collection system rehabilitation, repair, improvement, construction will be developed between the Contractor and Town based on Contract Unit pricing, material pricing, and technology and remedial construction services as needed to complete the Work contemplated. Town reserves the right to select the technology for the scope of work contemplated.

I. Materials supplied and construction performed under this Contract shall comply with the latest version of Town of Jupiter Water and Stormwater Guide for Development, Design and Construction Standards and Engineering and Public Work Construction Standards, available on the Town of Jupiter website, www.jupiter.fl.us. Work performed in FDOT or Palm Beach County right of ways must comply with those agencies standards.

1.03 WORK BY OTHERS

A. The Contractor's attention is directed to the fact that work may be conducted at the sites by other contractors during the performance of the Work under this Contract. The Contractor shall conduct its operations so as to minimize interference, to the greatest extent practical, with the Work of other contractors, and shall cooperate fully with such

contractors to provide continued safe access to their respective portions of the sites, as required to perform their respective contracts.

B. The Contractor shall cooperate fully with all utility forces of the Town or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the Work, and shall schedule the Work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.04 SCHEDULE AND COORDINATION

A. The Town will notify the Contractor when maintenance, repair or improvements to Stormwater Utility infrastructure are required. The Contractor shall be prepared to conduct a site visit to be familiarized with existing conditions, prepare and submit a detailed scope of work, provide adequate notice prior to scheduling the work and mobilize to the site to complete work according to the time frames provided below.

B. For non-emergency work orders, the Contractor shall meet with the Town or visit the work site within five (5) working days of receiving a request from the Town. The purpose of this meeting will be to discuss and determine the scope of work, existing conditions that should be considered during construction and restoration, and any other factors that may determine or affect the scope of work. Within ten (10) working days of the meeting, Contractor shall provide Owner with a detailed scope of work, detailed cost estimate (including labor, equipment and materials) with supporting documentation, and a schedule for the work. Owner will provide comments or approval for the proposal within five (5) working days of receipt from Contractor. Owner will provide Contractor with a Work Order Authorization and associated purchase order within ten (10) working days of Town's approval of proposal. The Contractor shall notify the Town at least five (5) working days prior to mobilizing to the site to complete the work. Upon mobilization, the Contractor shall diligently work to complete Stormwater Utility Infrastructure repairs or improvements as detailed in their scope of work and schedule. Delays shall be communicated in advance and work scope and schedule revised as needed and approved by the Town.

C. For emergency work orders, the Contractor shall meet with the Town the same day that they are notified of an emergency repair. Within twenty-four (24) hours, the Contractor shall provide an estimated labor, materials and equipment list for the Town's approval. The Town will issue an emergency Work Order authorization and purchase order. Upon the Town's approval, the Contractor shall mobilize to the site within twenty-four (24) hours or to the extent practical to begin repair activities. As the emergency work progresses, the Contractor shall revise and update the scope of work, as needed, for the Town's review and approval.

D. For hurricane and natural disaster related events, the Town will notify the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Town in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Owner's facilities prior to an event and respond to the Owner's facilities immediately following an event. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response not related to Contract Work and will be paid at the labor and equipment rates provided in the LOC.

1.05 FIELD LAYOUT OF WORK

A. All work under this Contract shall be constructed in accordance with the information stipulated by the Contract and provided by the Owner, on drawings, sketches, photographs, and in other written documentation for each Work Order or as modified by the Owner. Elevations of existing ground, structures and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the Owner for interpretation or correction.

B. All survey work and materials for construction control purposes and record drawings shall be made by the Contractor at his expense and shall be included in the proposal for work order. The Contractor shall establish all base lines for the location of the principal component parts of the work together with bench marks and batter boards adjacent to the work. Based upon the information provided by the sketches and/or drawings, the Contractor shall develop and make all detail surveys necessary for construction. If necessary, the Owner will assist with furnishing information and locations for existing bench marks.

C. The Contractor shall have the responsibility to carefully preserve the bench marks, reference points and stakes. In case of destruction thereof by the Contractor or resulting from his negligence, he shall be held liable for any expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.

D. Existing or new control points, property markers, and monuments that will be established or are destroyed during the normal causes of construction shall be re-established by the Contractor; and all reference ties recorded therefore shall be furnished to the Owner. All computations necessary to establish the exact position of the work shall be made and preserved by the Contractor. Contractor shall review field layout and staking with Owner prior to proceeding with work.

E. Specific Staking Requirements: When performing construction as part of this contract, the Contractor shall set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work no greater than 50 feet on tangents and 25 feet on curves, or as needed for Town's Field Representative to evaluate the proposed improvements.

F. Personnel, Equipment, and Record Requirements: The Contractor shall employ only competent personnel and use only suitable equipment in performing layout work. The Contractor shall not engage the services of any person or persons in the employ of the Owner for performance of layout work. The Contractor shall keep adequate field notes and records while performing layout work. The Contractor shall make these field notes and records available for the Owner's review as the work progresses, and furnish copies to the Owner at the time of completion of the project. The Owner's inspection, checking, or acceptance of the Contractor's field notes or layout work does not relieve the Contractor of his responsibility to achieve the lines, grades, and dimensions necessary to complete the work properly. Prior to final acceptance of the project, the Contractor shall re-establish in a permanent manner on the surface of the completed work, all existing and new control points, property markers, and monuments.

G. The Owner may check all or any portion of the work including but not limited to sidewalks, curb, subgrade, base, pavement elevations, pipe inverts, basin elevations, and any other areas or items, and the Contractor shall afford all necessary assistance to the Owner in carrying out such checks. Any necessary corrections to the work shall be performed immediately by the Contractor.

1.06 CONTRACTOR USE OF PROJECT SITE

A. The Contractor's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices. Off-site storage of materials will be arranged for by the Contractor and a copy of an agreement for use of other property shall be furnished to the Owner.

1.07 PARTIAL UTILIZATION OF THE WORK BY OWNER

A. The Contractor is hereby advised that the Owner may accept the responsibility for the maintenance and protection of a specific portion of the project if utilized prior to completion. However, the Contractor shall retain full responsibility for satisfactory operation of the total project.

1.08 SITE CONDITIONS

A. The Contractor acknowledges that conditions affecting the work vary, including but not restricted to those bearing upon transportation, disposal, handling and storage of

materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides, water tables or similar physical conditions at the site, the conditions of the ground, fill, existing improvements, the character of equipment and facilities needed preliminary to and during prosecution of the Work. The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Owner.

B. Contractor is responsible to familiarize himself with each project site and the associated site conditions before submitting a proposal for work order for Owner's consideration. Any conditions that affect Contractor's ability to perform the work in accordance with Town of Jupiter Utilities and Engineering/Public Works construction standards and details (available on the Town's website www.jupiter.fl.us) shall be included in the proposal for work order.

PART 2 -- PRODUCTS - (Not Used)

PART 3 -- EXECUTION - (Not Used)

– END OF SECTION –

SECTION 01030 (REVISED ADDENDUM 1)

HURRICANE PREPAREDNESS

PART 1 – GENERAL

1.01 GENERAL

A. The Contractor's attention is drawn to the possibility of hurricane or severe storm conditions occurring at the site of work during the course of Contract Work.

B. Within fourteen (14) days of the date of the Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan specific to this project. The plan should outline the necessary measures which the Contractor proposes to perform related to Contract Work at no additional cost to the Owner in case of a hurricane or severe weather warning.

C. The Contractor shall also include a Letter of Commitment (LOC) with the Hurricane Preparedness Plan. The LOC shall detail the Contractor's ability to be available on an as-needed, on-call basis for hurricane or natural disaster events along with emergency labor and equipment rates. The LOC and emergency response activities shall be for work related to hurricane or natural disaster preparations prior to the event and/or recovery activities immediately following the event that are outside of and in addition to Contract Work.

D. In the event of inclement weather, or whenever the Owner shall direct, the Contractor shall, and will, cause Subcontractors to protect carefully the Work and all materials and equipment from experiencing damage or causing injury by extreme weather. Work and materials damaged shall be removed and replaced at the expense of the Contractor.

1. Hurricane Watch: Upon designation of a hurricane watch, the Contractor shall be responsible for removing all loose supplies and equipment from the job site that may pose a danger. Contractor may provide the Owner with alternatives to removing the equipment and materials from the site, provided that the methods are reasonable considering the impending threat of storm. The Owner does not need to approve the alternative method should he feel it is not in the best interest of the Town. In addition, the Contractor shall remove all bulkheads and plugs in pipelines that would impede drainage in the case of flooding. Structures that may be in danger of floatation shall be flooded. The Contractor shall also cooperate with the Owner in protecting any other structures at the site from receiving poor quality runoff resulting from activities.

2. Hurricane Warning: No mobile "temporary facility" shall be staffed during a hurricane warning. Contractor facilities meeting these criteria shall be evacuated. Reasonable steps shall be taken to protect all such facilities and their

contents from damage and to avoid the facility from causing damage to the surroundings.

E. The Contractor may be required to backfill excavations depending on the severity of the approaching storm or the expected amount of rainfall. Additionally, erosion protection and inlet protection will be required depending on the site conditions at the time of the Hurricane Watch.

F. Contractor shall be responsible to securely tie down large items and remove small lighter items from the job site upon notification to do so by the Owner. Equipment with booms or high rise pieces shall be lowered and secured.

G. In the event of a hurricane or natural disaster, the Owner will notify the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Owner in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Owner's facilities prior to an event and respond to the Owner's facilities immediately following an event. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response not related to Contract Work and will be paid at the labor and equipment rates provided in the LOC.

- END OF SECTION -

TOWN OF JUPITER

Invitation to Bid

Sealed bids will only be accepted at the Town Clerk's Department, 210 Military Trail, Jupiter, Florida 33458:

Stormwater Utility Infrastructure Repairs Unit Price Contract
(S2029)

Until **2:00PM**, Local Time, **June 30, 2020** at which time and place all bids received will be publicly opened and read aloud in the Town Council Chambers. Sealed bids shall be submitted to the Town Clerk, on paper and in accessible electronic format, in accordance with the Instruction to Bidders. Bids received after the time and date specified will not be considered. The face of the envelope shall be addressed as follows:

Town Clerk
Town of Jupiter
210 Military Trail
Jupiter, FL 33458
June 30, 2020 at 2:00 PM
Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

The nature and scope of this project is:

Provide stormwater utility infrastructure repairs, replacements and/or installations on an as needed basis utilizing one or a combination of a number of unit price bid items. These items may include, but are not limited to: bypass pumping; realigning or replacing inlet/manhole castings; sealing and/or grouting storm water pipe joints; installing new manholes/conflict boxes/catch basins; pipe to structure connection repairs; storm water pipe point repairs; slip lining; cured in place lining; canal dredging/cleanout and restoring miscellaneous surface improvements such as asphalt roadway replacement, pavement overlay, concrete sidewalk replacement, concrete curb and gutter replacement, sod replacement, fence replacement and other improvements as described by the Project Documents.

Bid Documents will be available on June 2, 2020 at www.demandstar.com. Bid Documents can be downloaded for $5.00 by signing up for a free agency subscription for the Town of Jupiter at www.demandstar.com. Hard copies may be purchased from www.demandstar.com or by emailing demandstar@onvia.com.

A virtual pre-bid meeting will be held on June 10, 2020 at 11:00 AM using Zoom. Bidders can access the meeting using the following link, https://zoom.us/j/5217612434?pwd=WStJYWg3SWVEN2p0ZHphbEl5RzBtZz09. Alternatively, bidders can join the meeting by visiting https://zoom.us/join, enter the Meeting ID, 521 761 2434 and use the password, S2029. Attendance at the pre-bid meeting is not a requirement for bid qualification; however, bidders are encouraged to attend.

Questions concerning the bid will be answered by addendum through Demandstar.com. All questions shall be directed to Rebecca Wilder in writing by fax (561) 747-5634 or email rebeccaw@jupiter.fl.us (with Project Name in the subject of the email). Emails should be delivered with a Read Receipt requested to confirm successful receipt by the Town.

Bid Security in the amount of five percent (5%) of the value of the initial contract term ($1,015,000) must accompany each bid in accordance with the Instructions to Bidders.

The Town of Jupiter reserves the right to waive any irregularities and to reject any and all bids. The Town of Jupiter is an equal opportunity employer.

By Order of the Town Council,
Town of Jupiter

Sally Boylan, Town Clerk

PUBLISHED: Palm Beach Post

DATE: May 30, 2020

Instructions to Bidders

1. DEFINED TERMS

1.1. Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract, EJCDC C-700 (2018 Edition) have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

2. COPIES OF BIDDING DOCUMENT

2.1. Complete sets of the Bidding Documents in the number and for the non-refundable sum, if any, may be obtained from www.demandstar.com as stated in the Advertisement or Invitation.

2.2. Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3. Owner in preparing Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS

3.1. To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit with his/her Bid written evidence of previous experience, references, licensing requirements, and authority to conduct business in the jurisdiction where the project is located, and insurance requirements. Each Bid must contain evidence of the Bidder's qualifications by completion of the Qualification Requirements form in the Front End Documents and Bid Proposal using projects completed by the Bidder that included work meeting the specific description stated on that form as well as evidence of Bidder's qualification to do business in the state where the project is located or convenient to obtain such qualification prior to award of the contract. Bidder shall submit additional information, after the Bid Opening, if requested by Owner, in order for Owner to complete a comprehensive review of the Bid.

3.2. No Bid will be accepted from, nor will any contract be awarded to any person who is in arrears to the Owner, upon any debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to Owner, or any other governmental agency or entity, or who is deemed irresponsible or unreliable by the Owner.

3.3. No Bid will be accepted from, nor will any contract be awarded to any individual, firm, partnership, corporation or association who is currently in litigation with the Owner, or who is providing testimony in current litigation against the Owner or who has a financial interest in any litigation against the Owner.

3.4. Bidders are not required to be a plan holder of record with Demandstar.com; however, bidders are responsible to obtain complete sets of bidding documents in preparation of submitting a bid.

3.5. All bidders must be an Underground Utility and Excavation Contractor licensed in the State of Florida.

3.6. Bidders are required to complete and submit with their Bid the Qualification Requirements included in the Front End Bid Documents. Owner will evaluate experience and conduct reference checks as part of the bid evaluation process to assess whether Bidder is qualified and responsible to perform the work presented in the Bid Documents. Bidder must show that he/she has sufficient manpower and equipment to complete the Work, that previous experience is of the type and magnitude presented in the Bid

Documents for this contract, that past projects of similar type and magnitude have been completed within budget and on schedule, that past projects have been managed professionally and construction quality and field supervision are professional and of best industry practice.

3.7. Any Bidder who does not meet the qualification requirements of the Bid will not be considered for award.

3.8. Owner reserves the right to request additional experience, reference information, financial information and any other information necessary to perform a comprehensive evaluation of the Contractor and his/her major subcontractors.

3.9. The Contractor of Award is required to hold a Town of Jupiter occupational license at the time work commences.

4. EXAMINATION OF BID/CONTRACT DOCUMENTS AND SITE

4.1. Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Bid/Contract Documents.

4.2. Site is accessible to the Bidder to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid. Site Visits may be scheduled with Owner as stated in Article 4.5.

4.3. The lands upon which the Work is to be performed, rights-of-way for access, open space for parking, utility easements for utilities and other lands designated for use by Contractor in performing the Work are identified in the Supplementary Conditions, General Requirements or Drawings.

4.4. The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 4 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

4.5. A site visit may be conducted anytime during the bidding process. Bidders are encouraged to conduct site visits as needed for preparation of bids.

5. DETERMINATION OF ESTIMATED QUANTITIES

5.1. Lump Sum Contracts: The Bidder is responsible for the determination of the quantities for those items constructed within the authorized plan limits or dimensions. The Owner does not assume any responsibility for any incidental information in Bid documents that may be construed as a quantity of work and/or materials.

5.2. Contracts other than Lump Sum: For those items constructed within authorized plan limits or dimensions, use the quantities shown in the plans and in the Bid Form as the basis of the Bid. The Owner will also use these quantities for final payment as limited by the provisions for the field conditions, use and measurement, the quantities shown in the plans and in the proposal form are approximate and provide only a basis for calculating the bid upon which the Owner will award the Contract. Where items are listed for payment as lump sum units, the Bidder is solely responsible for his own estimates of such quantities and of the work to be performed.

5.3. The Owner reserves the right to make, at any time prior to or during the progress of the work, such increases, decreases, or alterations to the estimated quantities of work to be done or materials to be furnished which materially increases or decreases the cost or time of performance. Such increases, decreases, or alterations shall not constitute a breach of contract, shall not invalidate the contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The bidder agrees to perform the work, as altered, the same as if it had been a part of the original Contract.

6. INTERPRETATIONS

6.1. All questions about the meaning or intent of the bid documents shall be submitted to Town of Jupiter Utilities, Attn: Rebecca Wilder, P.E. in writing at 17403 Central Boulevard, Jupiter, FL 33458, telephone 561-741-2635, facsimile 561-747-5634 or by email rebeccaw@jupiter.fl.us. Replies which in the Owner's opinion may affect the scope, price or schedule of the Work, will be issued by Addenda, delivered to all parties recorded by Demandstar.com as having received the bid documents. Questions received less than three days prior to the date for opening of bids will not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7. BID SECURITY

7.1. Bid Security shall be made payable to Owner, in an amount of five percent (5%) of the estimated value of the initial contract term ($1,015,000) in the form of a certified or bank check or a Bid Bond issued by a Surety meeting the requirements of Paragraph 6.01 of the General Conditions.

7.2. The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security within 15 days of the Notice of Intent to Award, Owner may annul the Notice of Intent to Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the "effective date of the contract" (which term is defined in the General Conditions) by Owner to Contractor and the required Contract Security is furnished or the one hundred and twenty first day after the Bid opening. Bid Security of other Bidders will be returned within seven days of the Bid opening.

8. CONTRACT TIME

8.1. The number of days within which, or the date by which, the Work is to be completed (the Contract Time) is set forth in the Bid Form and will be included in the Agreement.

9. LIQUIDATED DAMAGES

9.1. Provisions for liquidated damages, if any, are set forth in the Agreement.

10. SUBSTITUTE MATERIAL AND EQUIPMENT

10.1. The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or equal" item of material or equipment may be furnished or used by Contractor if acceptable to Owner, application for such acceptance will not be considered by Owner until after the "effective date of the Agreement". The procedure for submittal of any such application by Contractor and consideration by Owner is set forth in Article 7 of the General Conditions, which may be supplemented in the General Requirements.

11. SUBCONTRACTORS, ETC.

11.1. If the Front End Documents or the Supplementary Conditions require the identity of certain Subcontractors and other persons and organizations to be submitted to Owner with the Bid or in advance of the Notice of Intent to Award or Notice of Award, the apparent Successful Bidder, and any other Bidder so requested, shall provide such evidence with the Bid, or shall submit to Owner upon request a list of all Subcontractors and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the Work as to which such identification is so required. Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualification for each such Subcontractor, person and organization if requested by Owner. If Owner after due investigation has reasonable objection to any proposed Subcontractor, other person or organization, may before giving the Notice of Intent to Award or Notice of Award request the apparent Successful Bidder to submit an acceptable substitute without an increase in the Bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor, other person or organization so listed and to whom Owner does not make written objection prior to the giving of the Notice of Intent to Award or Notice of Award will be deemed acceptable to Owner.

11.2. In contracts where the Contract Price is on the basis of Cost of the Work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Intent to Award or Notice of Award, shall identify in writing to Owner those portions of the Work that such Bidder proposes to subcontract and after the Notice of Intent to Award or Notice of Award may only subcontract other portions of the Work with Owner's written consent.

11.3. No Contractor shall be required to employ any Subcontractor, other person or organization against whom he has reasonable objection.

11.4. Prime Contractor must perform a minimum of 60% of the work of this contract with his/her own forces.

12. PRICES BID

12.1. Prices shall be shown in Unit Prices written in numerical figures with Extended Values. In the event of discrepancies existing between unit prices and extended values or totals, unit prices shall govern.

12.2. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

12.3. Discounts extended to Owner shall include but not be limited to those discounts normally extended to governmental agencies as well as the private sector.

12.4. Chain discounts are not acceptable and will not be considered in determining an award. Firm prices are to be quoted for the term of the Contract.

12.5. Bidder warrants by virtue of bidding that prices, terms and conditions in the Bid will be firm for acceptance, for a period of one hundred and twenty (120) calendar days from the date of Bid opening unless otherwise stated by the Owner.

12.6. The Bid price shall include all permit fees, royalties, license fees and other costs arising from the use of such design, device or materials in any way involved in the work and all costs of packaging, transporting and delivery to the designed location with the Owner.

12.7. For the purpose of evaluation, the Bidder must indicate any variance or exceptions to the stated specification no matter how slight. Deviations should be explained in detail. Absence of variations and/or corrections will be interpreted to mean that the Bidder meets all the specifications in every respect.

13. BID FORM

13.1. The Bid Form is included herein (see Proposal).

13.2. Bid Forms must be completed in ink or typed. The Unit Price and Extended Value of each Bid Item on the form must be provided in numerals. Contractor must bid on all alternates on the bid form. All bid forms must be filled out in their entirety. Figures must be provided for all unit prices and values. Incomplete bid forms will be considered non-responsive.

13.3. Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

13.4. Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

13.5. All names must be typed or printed below the signature.

13.6. The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

13.7. The address to which communications regarding the Bid are to be directed must be shown.

13.8. If the Bid form contains alternate(s), Bidder must bid on all alternate(s), unless otherwise indicated.

14. SUBMISSION OF BIDS

14.1. Three copies of the Bid (one signed original, one paper copy, and one electronic pdf on compact disc or flash drive) shall be submitted at the time and place indicated in the Advertisement for Bids or Invitation to Bid and shall be included in an opaque sealed envelope, marked with the Project title and name and address of the Bidder and accompanied by the Bid Security and other required documents. The Bid Form/Schedule of Values and Bid Bond should be clearly marked with a tab for easy identification during the bid opening process. If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof, with the Project name on the front.

15. MODIFICATION AND WITHDRAWAL OF BIDS

15.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

15.2. If, within twenty four hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of his Bid, which Bidder may withdraw his Bid and

the Bid Security will be returned. Thereafter, that Bidder may be disqualified from further bidding on the Work. If a notice is filed with Owner after 24 hours then the Contractor will sacrifice his Bid Bond.

16. OPENING OF BIDS

16.1. Bids will be opened publicly.

16.2. When Bids are opened publicly they will be read aloud, and an abstract of the amounts of the base Bids and major alternates (if any) will be posted on Demandstar.com and made available after the opening of Bids.

17. BIDS TO REMAIN OPEN

17.1. All Bids shall remain open for one hundred and twenty (120) calendar days after the day of the Bid opening, but Owner may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

18. AWARD OF CONTRACT

18.1. Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive or conditional Bids. Discrepancies between words and figures, for total bid prices, will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between the indicated value and the correct value as calculated by the product of the unit price and the estimated quantity will be resolved by using the stated unit price.

18.2. In evaluating Bids, the Owner shall consider the qualifications of the Bidders and whether or not the Bids comply with the prescribed requirements, alternates, and unit processes of the Bid Documents.

18.3. Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions and Bid Documents. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by Owner.

18.4. Owner may conduct such investigations as he deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

18.5. Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's satisfaction.

18.6. If the contract is to be awarded, it will be awarded to the lowest, responsive, responsible Bidder, based on the lowest Total Base Bid price, or the lowest Total Bid Price plus any combination of Alternate Bid Item(s), as evaluated by the Owner to be in the best interest of the Owner. All Bid pricing shall be submitted on the Bid Proposal Form (Bid Schedule of Values) included in the Front End Bid Documents.

18.7. If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within one hundred and twenty (120) days after the day of the Bid opening.

18.8. The Successful Bidder may be required to furnish to Owner bid documentation in an accessible format pursuant to Section 508 of the American Rehabilitation Act subsequent to receiving a Notice of Intent to Award.

18.9. More than one Bid received for the same work from an individual, firm, partnership, corporation or association under the same or different names will not be considered. If, in the determination of the Owner, there are reasonable grounds for believing that any Bidder is interested in more than one Bid for the same work, or that any collusion exists among the Bidders, this will result in the rejection of the Bids of those Bidders who participated in those Bids. In either case the Owner may deem those Bidders to be a non-responsible or non-qualified Bidder.

19. PERFORMANCE AND OTHER BONDS

19.1. Article 6.0 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to Performance and Payment Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by the required Contract Security.

20. SIGNING OF AGREEMENT

20.1. When Owner gives a Notice of Award or a Notice of Intent to Award to the Successful Bidder, it will be accompanied by at least two unsigned counterparts of the Agreement and all other Contract Documents. Within fifteen days thereafter Contractor shall sign and deliver at least two counter parts of the Agreement to Owner with all other Contract Documents attached. Within thirty days of the Notice of Award, Owner will deliver all fully signed counterparts to Contractor.

21. PERMITS

21.1. The work associated with this contract is maintenance work and is not subject to Town or County drainage permit requirements. All work must meet federal, county and local safety standards including but not limited to meeting the OSHA Trench Safety, Town of Jupiter's NPDES requirements, applicable maintenance of traffic requirements, hurricane preparedness and other miscellaneous permit requirements. In the event work does require a Town or County Permit, Owner will assist Contractor with preparing and submitting Engineering drawings/plans and permit applications and pay any associated permit fees.

21.2. Miscellaneous permits required to be obtained and paid for by the contractor include: tree removal permits, dewatering permits, NPDES NOI permits, maintenance of traffic approvals. Contractor is responsible to pay for any permits and/or fees associated with any of these types of permits.

22. TAXES

22.1. The successful Bidder shall pay all applicable sales, consumer use and other similar taxes required by law.

22.2. The Contract contains provisions in the Supplemental Conditions for procurement of materials and equipment incorporated into the project under the Sales and Use Tax Exemption program.

23. PLANS AND SPECIFICATIONS

23.1. The apparent silence of the specifications as to any detail, or the apparent omission from the Specifications of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of the specifications shall be made on the basis of this statement.

23.2. For the purpose of evaluation, the Bidder must indicate any variance or exceptions to the stated specifications no matter how slight. Deviations should be explained in detail. Absence of variations

and/or corrections will be interpreted to mean that the Bidder meets all the specifications in every respect.

23.3. A Contract, if awarded, will be on the basis of material and equipment described in the plans and the technical specifications without consideration of possible substitute or an "or equal" item. Whenever it is indicated that a substitute or an "or equal" item of material or equipment may be furnished or used by the Bidder if acceptable to the Owner, application for such acceptance will not be considered by the Owner until after the date of execution of the Contract. In all cases, the low Bidder shall be determined on the basis of the base bid which shall reflect the costs for the materials and equipment specified. Bidders unable to provide the specified materials and equipment shall be determined unresponsive.

24. EQUAL OPPORTUNITY

24.1. The Town of Jupiter recognizes fair and open competition as a basic tenet of public procurement. Contractors doing business with the Owner are prohibited from discriminating on the basis of race, color, creed, national origin, handicap, age or sex.

25. OCCUPATIONAL HEALTH & SAFETY

25.1. In compliance with Chapter 442, Florida Statutes, any toxic substance listed in Section 38F-41.03 of the Florida Administrative Code delivered as a result of this Bid must be accompanied by a Material Safety Data Sheet ("MSDS") which may be obtained from the manufacturer. The MSDS must include the following information:

25.1.1. The chemical name and the common name of the toxic substance.

25.1.2. The hazards or other risks in the use of the toxic substance including: a) The potential for fire, explosion, corrosively and reactivity; b) The known acute and chronic health effects of risk from exposure including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance; and c) The primary routes of entry and symptoms of over exposure.

25.1.3. The proper precautions, handling practices, necessary personal protection equipment and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of exposure.

25.1.4. The emergency procedure for spills, fire, disposal and first aid.

25.1.5. A description in lay terms of the known specific potential health risks posed by the toxic substance intended to alert any person reading this information.

25.1.6. The year and month, if available, that the information was compiled and the name, address, and emergency telephone number of the manufacturer responsible for preparing the information.

25.2. Bidders are required to complete and submit with their bid the Contractor Safety Qualifications Form included in the Front End Documents.

25.3. Contractor of Award and sub-contractors will be required to perform the Work of the Contract in accordance with the Environmental Protection Agency Risk Management Program (40 CRF 68.87) and the Occupational Safety and Health Administration's Process Safety Management Program (29 CRF 1910.119 (h)).

26. AUDIT RIGHTS

26.1. The Owner reserves the right to audit the records of the successful Bidder for the commodities and/or services provided under the Contract at any time during the performance and term of the Contract and for a period of five (5) years after completion and acceptance by the Owner. If required by the Owner, the successful Bidder agrees to submit to an audit by an independent certified public accountant selected by the Owner. The successful Bidder shall allow the Owner to inspect, examine and review the records of the successful Bidder in relation to this Contract at any and all times during normal business hours during the term of the Contract.

26.2. The Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of this Contract and in furtherance thereof may demand and obtain records and testimony from the Contractor and its subcontractors and lower tier subcontractors. The Contractor understands and agrees that in addition to other remedies and consequences provided by law, the failure of the Contractor or its subcontractors or lower tier subcontractors to fully cooperate with the Office of Inspector General of Palm Beach County when requested may be deemed by the municipality to be a material breach of this contract justifying its termination. The Office of Inspector General in Palm Beach County is established by Palm Beach County Code, Section 2-421 - 2-440. Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be in violation of Palm Beach County Code, Section 2-421 – 2-440, and be punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

27. OPEN END CONTRACT

27.1. No guarantee is expressed or implied as to the total quantity of commodities/services to be purchased under any open end Contract. Estimated quantities will be used for Bid comparison purposes only. The Owner reserves the right to issue Work Orders as and when required for proposed work for any or all bid items or any combination thereof. Work under this Contract is subject to fiscal appropriation by the Jupiter Town Council in either or both the Town's Community Investment Program (CIP) and fiscal year operating budgets. Estimated funding budgets anticipated being available for the original two year contract term and subsequent two year and one year renewal terms are provided in the table below.

27.1.1. The Town's fiscal calendar runs from October 1st through September 30th.

27.2. The Owner reserves the right to purchase commodities/services specified herein through contracts established by other governmental agencies or through separate procurement actions due to unique or special needs. If an urgent delivery is required within a short period than the delivery time specified in the Contract, and if the seller is unable to comply therewith, the Owner reserves the right to obtain such delivery from others without penalty or prejudice to the Owner or to the Bidder.

27.3. The Initial term of the Contract will be two years (730 calendar days) from the date of Notice to Proceed. Owner may at Owner's sole discretion renew its Contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years, in accordance with the Town of Jupiter's Purchasing Policy and terms of the original Contract. Renewals will be in writing by change order to the Contract and are subject to the same terms, conditions, and unit pricing set forth in the initial Contract and any written amendments/change orders signed by both parties (Owner and Contractor). No compensation shall be made for costs associated with renewal of the Contract. Renewals are contingent upon satisfactory performance evaluations by the Owner and subject to the availability of fiscal year funding approved by the Jupiter Town Council. Contractor may elect not to extend the Contract with 90 days written notice to Owner. Owner is not obligated to extend the Contract.

Regardless of anything to the contrary, this Contract may be terminated by the Owner at any time and for any reason. Further, the Contractor agrees that it will not be entitled to any claims and/or damages resulting from such termination, including, but not limited to, lost profits, direct or indirect damages, and consequential special or punitive damages.

Anticipated Estimated Annual Funding
Town of Jupiter Utilities
Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

Year	Project Description	Estimated Value	
2020/2021	Stormwater Rehabilitation and Repair (CIP)	$300,000	
	Stormwater Repair and Maintenance (Operating, R&M)	$100,000	
	Unanticipated Emergency Repairs	$100,000	
2021/2022	Miscellaneous Stormwater Repairs (CIP)	$309,000	
	Stormwater Repair and Maintenance (Operating, R&M)	$103,000	
	Unanticipated Emergency Repairs	$103,000	
	Estimated Initial 2 Year Contract Term Total		**$1,015,000**
2022/2023	Stormwater Rehabilitation and Repair (CIP)	$318,000	
	Stormwater Repair and Maintenance (Operating, R&M)	$106,000	
	Unanticipated Emergency Repairs	$106,000	
2023/2024	Miscellaneous Stormwater Repairs (CIP)	$328,000	
	Stormwater Repair and Maintenance (Operating, R&M)	$109,000	
	Unanticipated Emergency Repairs	$109,000	
	Estimated Initial 2 Year Contract Term Total		**$1,076,000**
2024/2025	Stormwater Rehabilitation and Repair (CIP)	$338,000	
	Stormwater Repair and Maintenance (Operating, R&M)	$113,000	
	Unanticipated Emergency Repairs	$113,000	
	Estimated 1 Year Contract Term Extension Total		**$564,000**
	Estimated 5 Year Total		**$2,655,000**

28. CONFLICT OF INTEREST

28.1. The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. Bidders must disclose with their Bid the name of any officer, director, partner, proprietor, associate or agent who is also a public officer or employee of the Owner or any of its agencies. Further, all Bidders must disclose the name of any public officer or employee of the Owner who owns, directly or indirectly, an interest of five percent (5%) or more in the Bidder's firm or any of its branches or affiliate companies.

29. SPECIAL LEGAL REQUIREMENTS

29.1. PUBLIC RECORDS

29.1.1. This Agreement is subject to and governed by the laws of the State of Florida, including without limitation Chapter 119, Florida Statutes, which generally makes public all records or other writings made by or received by the parties. The Contractor acknowledges its legal obligation to comply with § 119.0701, Florida Statutes.

29.1.2. A request to inspect or copy public records relating to a public agency's contract for services must be made directly to the public agency. If the public agency does not possess the requested records, the public agency shall immediately notify the contractor of the request, and the contractor must provide the records to the public agency or allow the records to be inspected or copied within a reasonable time.

29.1.3. If a contractor does not comply with the public agency's request for records, the public agency shall enforce the contract provisions in accordance with the contract.

29.1.4. A contractor who fails to provide the public records to the public agency within a reasonable time may be subject to penalties under s. 119.10.

29.1.5. **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, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 561-741-2270, BRITTANYG@JUPITER.FL.US, OR 210 MILITARY TRAIL, JUPITER, FL 33458.**

29.2. OFFER EXTENDED TO OTHER GOVERNMENTAL ENTITIES

29.2.1. The Town of Jupiter encourages and agrees to the successful bidder extending the pricing, terms and conditions of this solicitation or resultant contract to other governmental entities at the discretion of the successful bidder.

29.3. CONE OF SILENCE, Sec. 2-355. Cone of Silence

29.3.1. Cone of silence means a prohibition on any communication, except for written correspondence, regarding a particular request for proposal, request for qualification, bid, or any other competitive solicitation between:

29.3.1.1. Any person or person's representative seeking an award from such competitive solicitation; and

29.3.1.2. Any county commissioner or commissioner's staff, any member of a local governing body or the member's staff, a mayor or chief executive officer that is not a member of a local governing body or the mayor or chief executive officer's staff, or any employee authorized to act on behalf of the commission or local governing body to award a particular contract.

29.3.2. For the purposes of this section, a person's representative shall include but not be limited to the person's employee, partner, officer, director, consultant, lobbyist, or any actual or potential subcontractor or consultant of the person.

29.3.3. The cone of silence shall be in effect as of the deadline to submit the proposal, bid, or other response to a competitive solicitation. The cone of silence applies to any person or person's representative who responds to a particular request for proposal, request for qualification, bid, or any other competitive solicitation, and shall remain in effect until such response is either rejected by the county or municipality as applicable or withdrawn by the person or person's representative. Each request for proposal, request for qualification, bid or any other competitive solicitation shall provide notice of cone of silence requirements and refer to this article.

29.3.4. The provisions of this article shall not apply to oral communications at any public proceeding, including pre-bid conferences, oral presentations before selection committees, Contract negotiations during any public meeting, presentations made to the board or local municipal governing body as applicable, and protest hearings. Further, the cone of silence shall not apply to contract negotiations between any employee and the intended awardee, any dispute resolution process following the filing of a protest between the person filing the protest and any employee, or any written correspondence at any time with any employee, county commissioner, member of a local municipal governing body, mayor or chief executive officer that is not a member of the local municipal governing body, or advisory board member or selection committee member, unless specifically prohibited by the applicable competitive solicitation process.

29.3.5. The cone of silence shall not apply to any purchases made in an amount less than the competitive bid threshold set forth in the county purchasing ordinance (County Code, chapter 2, article III, division 2, part A, section 2-51 et seq.) or municipal ordinance as applicable.

29.3.6. The cone of silence shall terminate at the time the board, local municipal governing body, or a county or municipal department authorized to act on behalf of the board or local municipal governing body as applicable, awards or approves a contract, rejects all bids or responses, or otherwise takes action which ends the solicitation process.

29.3.7. Any contract entered into in violation of the cone of silence provisions in this section shall render the transaction voidable.

END OF INSTRUCTIONS TO BIDDERS

ORIGINAL

Bid Proposal

Bidding Company Name: Johnson-Davis Incorporated

Town of Jupiter Utilities
210 Military Trail
Jupiter, FL 33458

Gentlemen:

The undersigned, as Bidder, hereby declares that the only Persons, company, or parties interested in the Proposal or the Contract to be entered into, as principals, are named herein; and that this Proposal is made without connection with any other person, company, or parties making a Bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

That the Bidder has carefully and to his full satisfaction examined the attached Instructions to Bidders, General Conditions, Supplementary Conditions, detailed Specifications, and Form of Contract and Bond, together with the accompanying plans, and that Bidder has read all addenda issued prior to the opening of Bids; and that Bidder has fully examined the site and the project documents and hereby agrees to furnish, unless otherwise provided, all implements, machinery, equipment, transportation, tools, materials, supplies, labor and other things necessary to the prosecution and completion of the work, to wit:

> Provide stormwater utility infrastructure repairs, replacements and/or installations on an as needed basis utilizing one or a combination of a number of unit price bid items. These items may include, but are not limited to: bypass pumping; realigning or replacing inlet/manhole castings; sealing and/or grouting storm water pipe joints; installing new manholes/conflict boxes/catch basins; pipe to structure connection repairs; storm water pipe point repairs; slip lining; cured in place lining; canal dredging/cleanout and restoring miscellaneous surface improvements such as asphalt roadway replacement, pavement overlay, concrete sidewalk replacement, concrete curb and gutter replacement, sod replacement, fence replacement and other improvements as described by the Project Documents.

It is proposed that the project herein described shall be constructed for the Lump Sum and Unit Prices as follows, all in accordance with the requirements and provisions of the Contract Documents.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Bid Schedule of Values
Stormwater Utility Infrastructure Repairs Unit Price Contract
(S2029)

The following schedule of bid items has been developed to allow the Town to equitably evaluate bids. Individual bid item unit costs will be used to establish the total cost of each scope of work developed to complete stormwater utility infrastructure repairs, replacements and/or installations; work orders will be issued as authorization to proceed with the various scopes of work to be completed under this Contract. Town does not guarantee that estimated quantities shown will be utilized in full, or at all. The Town may utilize some or all of these bid items for each scope of work, as the Town deems necessary.

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Value
Bid Items:					
1	Indemnification	LS	1	$ 100.00	$ 100.00
2	Bonds and Insurance	LS	1	$ 25.00	$ 25.00
3	4 Man Underground Construction Crew	HR	1	$ 280.00	$ 280.00
4	Overtime for 4 Man Underground Construction Crew	HR	1	$ 10%	$ 28.00
5	Combined Backhoe Loader with Operator	HR	1	$ 80.00	$ 80.00
6	Hydraulic Excavator with Operator	HR	1	$ 150.00	$ 150.00
7	Dump Truck with Operator	HR	1	$ 70.00	$ 70.00
8	Dewatering with 4" Hydraulic Pump	HR	1	$ 40.00	$ 40.00
9	Dewatering with Well Points	DAY	1	$ 272.00	$ 272.00
10	Asphalt Road Repair	SY	1	$ 30.00	$ 30.00
11	Asphalt Driveway Apron	SY	25	$ 25.00	$ 625.00
12	Concrete Driveway Apron	SY	25	$ 40.00	$ 1,000.00
13	Paver Driveway Repair	SF	120	$ 6.00	$ 720.00
14	Concrete Sidewalk	SY	4	$ 40.00	$ 160.00
15	Valley Curb	LF	3	$ 30.00	$ 90.00

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Bid Schedule of Values (Continued)
Stormwater Utility Infrastructure Repairs Unit Price Contract
(S2029)

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Value
16	Type "D" Curb	LF	3	$ 30.00	$ 90.00
17	Bahia Sod	SY	20	$ 4.00	$ 80.00
18	Saint Augustine Sod	SY	20	$ 8.00	$ 160.00

Total Bid Amount: (Item Nos. 1-18) = $ 4,000.00

Total Bid Amount (Item Nos. 1 – 18) in Words: Four Thousand Dollars And Zero Cents

END OF BID SCHEDULE OF VALUES.

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JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

List of Subcontractors/Suppliers

The Bidder shall list below the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the Work or improvement, or a subcontractor licensed by the State who, under subcontract to the prime contractor, specially fabricates and installs a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of two percent (2%) of the prime contractor's total bid. Failure to comply with this requirement may render the Bid non-responsive and may cause its rejection. If Prime Contractor will self-perform any of the work listed below it shall be indicated as self-perform under Subcontractor License Number.

Work to be Performed	Subcontractor License Number	Percent of Total Contract	Subcontractor/Supplier Name & Address
*All work to be self-performed			

Note: Provide licenses, certifications, experience, and qualification forms for those subcontractors listed above. Attach additional pages as needed.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements

(Complete these pages entirety and include with Bid. Attach copies of applicable Licenses)

THE UNDERSIGNED GUARANTEES THE TRUTH AND ACCURANCY OF ALL STATEMENTS AND ANSWERS HEREIN CONTAINED:

A. Any information for which OWNER cannot corroborate is grounds for rejection of Bid. (Use additional sheets as needed to provide the required information.)

B. The individual who holds the General Contractor's License for the firm awarded the Work for this Contract shall be active in the management and ownership of the firm and shall be available to provide expertise on the project during the course of the project as needed. Provide the name and the State of Florida license number of the licensee for this project:

Scott J. Johnson, President , CUC043087

1. State the numbers of years your organization has been doing business in the State of Florida:

42

2. State the number of years Bidding firm has been conducting business as a General Contractor or an Underground Utility Contractor licensed in the State of Florida:

42

3. We typically perform >90 % of the work with our own forces. List trades below for the Work of this Contract for which your organization is qualified to self-perform:

Underground Utilities, Excavation and Plumbing

4. Have you ever failed to complete work awarded to you? No
If so, state where, when and why:

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements (Continued)

5. State the location of the office from which this Contract will be managed.

   604 Hillbrath Drive, Lantana, FL 33462

6. State the number of employees available to complete the work contemplated by this contract.

   We have 159 Employees.

7. Name and experience of Bidder's Project Manager who will be assigned to this Contract. Include number of years in this position and with this company. If less than 3 years with this company provide name and contact information for previous employer. (Attach additional pages as necessary).

   *Please see attached resumes

8. Name and experience of Bidder's Project Superintendent who will be assigned to this Contract. Include number of years in this position and with this company. If less than 3 years with this company provide name and contact information for previous employer. (Attach additional pages as necessary).

   *Please see attached resumes

9. Equipment owned by Bidder to complete the Work identified for this Contract.

   *Please see attached equipment list

10. Equipment to be rented by Bidder to complete the Work of this Contract.

    None

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements (Continued)

11. Only Bidders and Subcontractor(s) who are qualified as outlined on the following pages will be considered for contract award. Failure to provide 4 projects showing the required type and scope of work, or if the Owner does not corroborate the project details, may result in disqualification. Qualified bidders shall have completed at least four (4) similar projects, in scope and magnitude, over the last five (5) years or possess equivalent experience as determined by Owner to be deemed acceptable.

    NOTE: In order to be deemed acceptable for the purpose of determining Bidder Qualification, similar projects shall be listed on the following forms and have all information completed (blanks correctly filled in) including contact names and telephone numbers of both the Owner and Engineer.

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JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements (Continued)

As Bidder, we certify the following:

(1) NAME & LOCATION OF PROJECT: CR A1A from Jupiter Beach Rd. to US Hwy 1, Jupiter, FL

CHECK ONE OF THE FOLLOWING OPTIONS, BIDDER WAS:
[X] PRIME CONTRACTOR [ ] SUBCONTRACTOR

YEAR OF PROJECT: 2014

SCOPE OF WORK: Infrastructure Construction & Reconstruction for SR A1A within City limits of Jupiter, FL

CONTRACT VALUE: $3,699,744.00

TOTAL VALUE OF CHANGE ORDERS: $430,168.12

REASON FOR CHANGE ORDERS: Change in Scope

CONTRACT START AND COMPLETION DATES: 11/2014 - 12/2015

WAS PROJECT COMPLETED ON TIME (IF NOT EXPLAIN THE DELAYS): Yes

OWNER OF PROJECT:
OWNER CONTACT NAME AND PHONE NUMBER: Town of Jupiter, Tom Driscoll, (561) 741-2215

ENGINEERING FIRM (DURING CONSTRUCTION): Calvin Giordano and Associates

ENGINEER CONTACT NAME, PHONE NUMBER, AND ADDRESS:

Patrick A. Figureall P.E.

(561) 684-6161

1800 Eller Dr. #600, Ft. Lauderdale, FL 33316

ADDITIONAL INFORMATION:

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements (Continued)

(2) NAME & LOCATION OF PROJECT: Worth Ave.-Block 400 Improvements, Palm Beach County

CHECK ONE OF THE FOLLOWING OPTIONS, BIDDER WAS:
[X] PRIME CONTRACTOR [ ] SUBCONTRACTOR

YEAR OF PROJECT: 2019

SCOPE OF WORK: WM replacement, Sewer Rehab & Replacement. New Drainage installation

CONTRACT VALUE: $1,330,022.21

TOTAL VALUE OF CHANGE ORDERS: $48,650.00

REASON FOR CHANGE ORDERS: Plan Changes/Revisions

CONTRACT START AND COMPLETION DATES: 8/2019 - 6/2020

WAS PROJECT COMPLETED ON TIME (IF NOT EXPLAIN THE DELAYS): Yes

OWNER OF PROJECT:
OWNER CONTACT NAME AND PHONE NUMBER: Town of Palm Beach, (561) 838-5406

ENGINEERING FIRM (DURING CONSTRUCTION): Chen-Moore & Assoc.

ENGINEER CONTACT NAME, PHONE NUMBER, AND ADDRESS:

Brent Whitfield, PE

(561) 746-6900

500 Australian Ave S., Ste 850 WPB, FL 33401

ADDITIONAL INFORMATION:

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements (Continued)

(3) NAME & LOCATION OF PROJECT: N29A CANAL CONNECTOR PROJECT, Broward County

CHECK ONE OF THE FOLLOWING OPTIONS, BIDDER WAS:
[X] PRIME CONTRACTOR [ ] SUBCONTRACTOR

YEAR OF PROJECT: 2019

SCOPE OF WORK: Construction of a 72" culvert, excavation, grading, geogrid paving, sidewalk

CONTRACT VALUE: $1,145,000.00

TOTAL VALUE OF CHANGE ORDERS: $85.000.00

REASON FOR CHANGE ORDERS: Reduction in scope (sidewalk)

CONTRACT START AND COMPLETION DATES: 1/2019 - 9/2019

WAS PROJECT COMPLETED ON TIME (IF NOT EXPLAIN THE DELAYS): Yes, completed on time

OWNER OF PROJECT:
OWNER CONTACT NAME AND PHONE NUMBER: Central Broward Water Control District, (954) 432-5110

ENGINEERING FIRM (DURING CONSTRUCTION): CRAVEN, THOMPSON & ASSOC., INC.

ENGINEER CONTACT NAME, PHONE NUMBER, AND ADDRESS:

Adolfo A. Gonzalez, PE

(954) 739-6400 Ext. 385

3563 NW 53RD STREET FT LAUDERDALE, FL 33309

ADDITIONAL INFORMATION:

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Qualification Requirements (Continued)

(4) NAME & LOCATION OF PROJECT: Jupiter Unit Price Contract - Stormwater Utility (S1628), Town of Jupiter

CHECK ONE OF THE FOLLOWING OPTIONS, BIDDER WAS:
[X] PRIME CONTRACTOR [ ] SUBCONTRACTOR

YEAR OF PROJECT: 2016

SCOPE OF WORK: Drainage repairs throughout the town

CONTRACT VALUE: $400,000.00

TOTAL VALUE OF CHANGE ORDERS: $400,000.00

REASON FOR CHANGE ORDERS: Town was satisfied with our contractual work so they elected to extend our contract

CONTRACT START AND COMPLETION DATES: 9/2018 - 9/2020

WAS PROJECT COMPLETED ON TIME (IF NOT EXPLAIN THE DELAYS): CURRENT

OWNER OF PROJECT:
OWNER CONTACT NAME AND PHONE NUMBER: Amanda Barnes, P.E., (561) 741-2270

ENGINEERING FIRM (DURING CONSTRUCTION): Town of Jupiter

ENGINEER CONTACT NAME, PHONE NUMBER, AND ADDRESS:

Amanda Barnes, P.E.
(561) 741-2537
210 Military Trail, Jupiter, FL 33458

ADDITIONAL INFORMATION:

JOHNSON-DAVIS INC.

SCOTT J. JOHNSON

EDUCATION: **BS – Civil Engineering**
Bucknell University, Lewisburg, PA

EXPERIENCE:

1992 – Present **Johnson-Davis Inc., Lantana, FL**
President
Underground utility construction contractor specializing in water, sewer, storm drainage systems, as well as highway and road construction.

1981 – 1992 **Johnson-Davis Inc., Lantana, FL**
Project Manager/Estimator

1977 – 1981 **Johnson-Davis Inc., Lantana, FL**
Pipe Foreman

1976 – 1977 **Palm Beach Utilities, Palm Beach Gardens, FL**
Utility Inspector/Land Surveyor

RELATED ACCOMPLISHMENTS:

National Utility Contractors Association of Florida
(member and two-time Past President)

Associated General Contractors
(member and Past President, Florida East Coast Chapter)

Underground Contractors Association of South Florida
(member and three-time Past President)

Certified Underground Utility and Excavation Contractor
State of Florida – License # CUC043087

JOHNSON-DAVIS INC.

WILLIAM CLARK CLIFFORD CRYER

EDUCATION:

BS – Business Administration,
Real Estate and Construction Management Major
University of Denver, Denver, CO

EXPERIENCE:

2018 – Present

Johnson-Davis Inc., Lantana, FL
Estimator
Underground utility construction contractor specializing in water, sewer, storm drainage systems, as well as highway and road construction. Prepare estimates for private and public work as both prime and subcontractor.

2014 – 2018

Johnson-Davis Inc., Lantana, FL
Project Manager
Company representative at pre-construction and project meetings. Ordered materials, billing, and job coordination for private and public utility projects.

2013 – 2014

Johnson-Davis Inc., Lantana, FL
Superintendent
Liaison between Project Manager and Foremen overseeing field operations of storm drainage, sanitary sewer, water, and force main crews.

2012 – 2013

Johnson-Davis Inc., Lantana, FL
Foreman
Field supervisor responsible for 7 to 10 person crew installing storm drainage, sanitary sewer, water, and force mains.

RELATED ACCOMPLISHMENTS:

OSHA 30 hour Construction Health and Safety Course
Florida DOT Maintenance of Traffic Advanced Certification
Certified Underground Utility and Excavation Contractor- State of Florida- License #CUC1225299
FDEP Qualified Stormwater Management Inspector

JOHNSON-DAVIS INC.

WALTER PFAFFENBERGER

EDUCATION:

BBA – Business Administration
Palm Beach Atlantic College, West Palm Beach, FL

EXPERIENCE:

2018 – Present

Johnson-Davis Inc., Lantana, FL
Estimator
Underground utility construction contractor specializing in water, sewer, storm drainage systems, as well as highway and road construction. Prepare estimates for private and public work as both prime and subcontractor.

2003 – 2018

Johnson-Davis Inc., Lantana, FL
Project Manager
Company representative at pre-construction and project meetings. Ordered materials, billing, and job coordination for private and public utility projects.

2002 – 2003

Johnson-Davis Inc., Lantana, FL
Heavy Equipment Operator

1999 – 2002

J.G. Developers Inc., Pearl River, NY
President
Researched and selected subdivision lots for homes. Involved in interim finance acquisition, budgeting, contracting, and architect interface on design for single family dwellings. Schedule, monitor, and inspect work.

1997 – 1999

R.D.&P. Construction Corp., Pearl River, NY
Construction Manager
Estimating, budgeting, and invoicing of commercial and residential site work contracts. Schedule, monitor, and inspect work.

RELATED ACCOMPLISHMENTS:

Class V Fire Sprinkler Contractor
Florida DOT Maintenance of Traffic Advanced Certification

ROBERT UELTSCHI

JOHNSON-DAVIS INC.

EDUCATION:

BS – Civil Engineering Technology
Western Kentucky University, Bowling Green, KY

EXPERIENCE:

2017 – Present

Johnson-Davis Inc., Lantana, FL
Construction Manager
Underground utility construction contractor specializing in DOT projects including water, sewer, storm drainage systems, as well as highway and road construction. Lead and supervise Johnson-Davis project management team and field superintendents.

2001 – 2017

Hubbard Construction Co, Orlando, FL
Construction Manager
Managed multi-phase bridge and highway projects. Responsible for planning, scheduling, and directing all project efforts. Ensured the project is constructed in compliance with contracts, specifications, budgets and schedules. Monitored safety and quality for compliance, manage project resources and pursue alternatives to improve constructability and meet project milestones. Oversight responsibility for purchasing and scheduling project materials, suppliers and subcontractors, project change orders, payment requisitions, monthly job cost/revenue reports, submittals, subcontractor payment requisitions/change orders, permits and tracking project quantities.

RELATED ACCOMPLISHMENTS:

Professional Engineer – Kentucky #26457
Land Surveyor-in-Training - Kentucky #598
National Society of Professional Engineers
Kentucky Society of Professional Engineers
Florida Transportation Builders Association
Experienced with MS Office, AutoCAD, Microsoft Project, Primavera P3 & P6, Construction Arbitration
FDEP Qualified Stormwater Management Inspector

JOHNSON-DAVIS INC.

DOUGLAS IPOLITO

EDUCATION:

AAS – Civil Engineering
Erie Community College, Buffalo, NY
Florida DOT Maintenance of Traffic Advanced Certification

EXPERIENCE:

2008 – Present

Johnson-Davis Inc., Lantana, FL
Project Manager
Underground utility construction contractor specializing in water, sewer, storm drainage systems and dewatering, as well as highway and road construction. Tasks include project takeoffs, material ordering, subcontractor agreements, project meetings, monthly billing, and change orders.

2006 - 2008

Hubbard Construction Company
Project Engineer

2004 – 2006

Subaqueous Services, Inc.
Lake Michigan Contractors
Project and Operations Manager

1988 – 2004

Great Lakes Dredge and Dock Company
Project Manager – 1997 – 2004
Project Engineer – 1993 – 1997
Field Engineer – 1988 – 1993

JOHNSON-DAVIS INC.

EDWIN JACOBS

EDUCATION:

BS – Civil Engineering
University of Central Florida, Orlando, FL

EXPERIENCE:

2018 – Present

Johnson-Davis Inc., Lantana, FL
Project Manager
Underground utility construction contractor specializing in water, sewer, storm drainage systems and dewatering, as well as highway and road construction. Tasks include project takeoffs, material ordering, subcontractor agreements, project meetings, monthly billing, and change orders.

2015 – 2018

Hubbard Construction Co, Ft. Lauderdale, FL
Senior Project Manager
Responsible construction activities, project budget, schedule, crew/resource allocation, material procurement, receiving subcontractor bids, coordinating scheduling, change orders, and job estimates for public construction projects.

2012 – 2015

Prince Contracting, Ft. Lauderdale, FL
Project Manager
Manage I-595 design build segments A and B and SWFIA.

2007 – 2012

Hubbard Construction Co, West Palm Beach, FL
Asphalt Manager
Public and private projects. Manage asphalt plant operations, quality control, and roadway operations.

RELATED ACCOMPLISHMENTS:

Florida DOT Maintenance of Traffic Advanced Certification
Asphalt Paving Technician Levels 1 and 2
FDEP Qualified Stormwater Management Inspector

JOHNSON-DAVIS INC.

LEONARD DENNIS

EDUCATION:

Newcomerstown High, Newcomerstown, OH
Confined Space Entry & Non-Entry Rescue Certification
Trenching & Excavation Competent Person Certification
Florida DOT Maintenance of Traffic Advanced Certification

EXPERIENCE:

1995 – Present

Johnson-Davis Inc., Lantana, FL
Superintendent
Underground utility construction contractor specializing in DOT projects including water, sewer, and storm drainage systems, as well as highway and road construction. Responsible for between 5 and 9 crews in the construction of municipal and private infrastructure improvements. Liaison between Project Manager and Foremen overseeing field operations.

1990 – 1995

Johnson-Davis Inc., Lantana, FL
Foreman
Field supervisor responsible for 7 to 10 person crew installing storm drainage, sanitary sewer, water, and force mains.

RELATED ACCOMPLISHMENTS:

Design/build projects up to 20 miles in length
Jack & Bore – Directional Boring
All phases of construction of Bebo bridges and Conspans
Bridges and Approaches
Banks and Shoreline Stabilization
Laser Profiling
Dewatering
Proficient/knowledgeable of DOT standards and specifications
Plan and review project work, scheduling, project layout, equipment, and manpower utilization
Coordinate, direct, and monitor activities of subcontractors and suppliers
Maintain EEO compliance
Maintain excellent safety and security practices for entire project

JOHNSON-DAVIS INC.

EDRIC MARTIN

EDUCATION:

South Fort High, Stuart, FL
CPR Certified
OSHA Trench Safety Certified
Confined Space Entry & Non-Entry Rescue Certification
Trenching & Excavation Competent Person Certification
Asbestos Awareness
Florida DOT Maintenance of Traffic Advanced Certification

EXPERIENCE:

2007 – Present

Johnson-Davis Inc., Lantana, FL
Superintendent
Underground utility construction contractor specializing in water, sewer, storm drainage systems, as well as highway and road construction. Liaison between Project Manager and Foremen overseeing field operations of storm drainage, sanitary sewer, water, and force main crews.

2002 – 2007

Johnson-Davis Inc., Lantana, FL
Foreman
Field supervisor responsible for 7 to 10 person crew installing storm drainage, sanitary sewer, water, and force mains.

1998 – 2002

Johnson-Davis Inc., Lantana, FL
Heavy Equipment Operator and Operator Trainer
Operate track excavator, rubber tire backhoe, and front-end loader, and train employees on same.

1990 – 1998

Hardy Construction, Davie, FL
Pipelayer/Heavy Equipment Operator
Coordinate the installation of water, sanitary sewer, and storm drainage pipe as well as operate track excavator, rubber tire backhoe, and front-end loader.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Proposal (Continued)

If awarded the Contract, the undersigned agrees to execute the attached Agreement/Contract within fifteen (15) calendar days from the date set forth in the Notice of Award and to fully complete all necessary work within the time limits specified below after date of written Notice to Proceed, with such extensions of time as are provided for in the General Conditions.

Substantial Completion:	730 calendar days from Notice to Proceed
Final Completion:	730 calendar days from Notice to Proceed

The undersigned understands the Contract time starts on the date of Notice to Proceed.

There is enclosed a bid guarantee consisting of five percent (5%) of estimated value for the initial contract term, $1,015,000, or $50,750

The undersigned agrees that all bid documents issued for this project, including addenda, have been reviewed and site visits performed, as necessary to provide a comprehensive bid. The undersigned acknowledges receipt of 1 (insert number) Addenda for this project.

The undersigned furthermore agrees that, in case of failure on undersigned's part to sign said contract and provide required bonds, power of attorney's, and insurance within (15) days after receipt of a Notice of Intent to Award or a Notice of Award, whichever comes first, the check, bond, or other security accompanying undersigned's Bod and the money payable thereon, shall become the property of the Town, by forfeit as agreed and liquidated damages; otherwise the check or bond accompanying undersigned's Bid shall be returned to the undersigned.

The undersigned acknowledges that payments made by the Town of Jupiter will be made via electronic funds transfers (EFT) and vendor will provide the Town of Jupiter with the information required to make EFT payments.

The undersigned, if awarded the contract, agrees to furnish at time of signing the contract, a payment bond and a performance bond, each in the amount of 100% of the contract value as set forth in "Instructions to Bidders".

The undersigned is aware that the Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of this contract and in furtherance thereof may demand and obtain records and testimony from the contractor and its subcontractors and lower tier subcontractors. The contractor understands and agrees that in addition to other remedies and consequences provided by law, the failure of the contractor or its subcontractors or lower tier subcontractors to fully cooperate with the Inspector General when requested may be deemed by the municipality to be a material breach of this contract justifying its termination.

Major Equipment List
All OWNED by Johnson-Davis, Inc.

ID	DESC	VIN#
Category: 10 WELLPOINT PUMPS		
10-0001	10 IN. WELLPOINT PUMP	7105
10-0003	10 IN. WELLPOINT PUMP	7568
10-0011	10 IN. WELLPOINT PUMP	7130
10-0013	WELLPOINT PUMP 6 IN.	NONE
10-0016	WELLPOINT PUMP 10 IN.	8460
10-0019	WELLPOINT PUMP 10 IN.	7505
10-0020	WELLPOINT PUMP 10 IN.	8334
10-0026	HYDRAULIC PUMP 6 IN.	5654
10-0028	JET PUMP , 4 IN. DIESEL	6J66
10-0030	DOUBLE DIAPHRAGM	4DDL335
10-0031	WELLPOINT PUMP 10 IN.	JD946068
10-0033	WELLPOINT PUMP 6 IN.	6951033
10-0035	WELLPOINT PUMP 8 IN.	US97362X
10-0036	HYDRAULIC PUMP 4 IN.	H-25-D-349
10-0038	WELLPOINT PUMP 8 IN.	U640528Y
10-0040	JET PUMP 4 IN.	None
10-0041	WELLPOINT PUMP 8 IN.	H-40WPLR-D-139
10-0043	TEST PUMP	
10-0045	JET PUMP 4 IN.	C.M.E.8291
10-0046	WELLPOINT PUMP 8 IN.	9037
10-0048	6 IN. TRASH PUMP	9065
10-0049	WELLPOINT PUMP 8 IN.	9064
10-0050	HYDRAULIC PUMP 4 IN.	2657
10-0051	JETPUMP ON WHEELS 4 IN.	4219
10-0052	8 IN. WELLPOINT PUMP	9159
10-0054	8 IN. WELLPOINT PUMP	9181
10-0055	12 IN. HYDRAULIC PUMP	D12SG068T1210
10-0056	8 IN. HYDRAULIC PUMP	325
10-0058	10 IN. WELLPOINT PUMP	9293
10-0059	10 IN. WELLPOINT PUMP	
10-0060	4 IN. HYDRAULIC PUMP	U797253C
10-0061	4 IN. HYDRAULIC PUMP	708
10-0062	8 IN. WELLPOINT PUMP	9220
10-0063	8 IN. WELLPOINT PUMP	9239
10-0064	4 IN. HYDRAULIC PUMP	
10-0065	WELLPOINT PUMP 6 IN.	6PW-019
10-0066	10 IN. HYDRAULIC PUMP	
10-0067	4 IN. HYDRAULIC PUMP	LD44369U146539
10-0068	4" HYDRAULIC PUMP ON WHEELS	F.P. 8-20
10-0069	4" HYDRAUIC PUMP ON WHEELS	F.P. 8-19
10-0070	3" HYDRAULIC PUMP	10HPU-58
10-0071	2.5" x 4" JET PUMP ON WHEELS	9500
10-0073	10 inch Roto Flo Wellpoint Pump	26109642 1.1
10-0074	6" Trash Pump	12001
10-0075	8 inch Roto Flo Wellpoint Pump	9010
10-0077	6 INCH HYDRAULIC PUMP POWER UNIT	1318-C
10-0078	8" HYDRAULIC PUMP	142-C
10-0079	8" Wellpoint Pump	14237
10-0080	8" Wellpoint Pump	14238
10-0081	8" Wellpoint Pump	14239
10-0082	8" Wellpoint Pump Quiet Pack	14235
10-0083	10" Wellpoint Pump	14269
10-0084	10" Wellpoint Pump	14270
10-999	Rental Pump	
Category: 11 VACUUM PUMPS		
10-0100	M5 VAC PUMP	
10-0164	M-3 VACUUM PUMP	
11-0005	M-2 VACCUM PUMP	00050
11-0053	M-2 VACUUM PUMP	0053
11-0100	M10 VACUUM PUMP	100
11-0101	VACUUM PUMP	101
11-0102	M10 VACUUM PUMP	VP102
11-0131	M5 VACUUM PUMP FOR 10-76	010131
11-1016	M3 VACUUM PUMP	101689
11-1036	10 INCH VACUUM PUMP	1036
11-1037	C10 VACUUM PUMP	1037
11-1190	M2 VACUUM PUMP	1190
11-1240	M3 VACUUM PUMP	1240
11-1357	M10 VACUUM PUMP	1357
11-1381	M10 VACUUM PUMP	1381
11-1386	VACUUM PUMP	1386
11-1387	M10 VACUUM PUMP	1387
11-1390	M2 VACUUM PUMP	1390
11-1711	M3 VACUUM PUMP	1711
11-1923	M-3 VACUUM PUMP	1923
11-1924	M3 VACUUM PUMP	1924
11-1941	M3 VACUUM PUMP	1941
11-2341	M3 VACUUM PUMP	2341
11-3044	M3 VACUUM PUMP	3044
11-3049	VACUUM PUMP	3049
11-3605	M-10 VACUUM PUM	3605
11-3737	M2 VACUUM PUMP	3737
11-3750	M-2 VACUUM PUMP	3750
11-4268	M3 VACUUM PUMP	4268
11-4297	VACUUM PUMP	4297
11-4371	M-3 VACUUM PUMP	4371
11-4636	VACUUM PUMP	4636
11-4840	M-3 VACUUM PUMP	4840
11-4841	M3 VACUUM PUMP	4841
11-4923	M3 VACUUM PUMP	
11-5445	M5 VACUUM PUMP	544515
11-6917	C 10" VACUUM PUMP	6917
11-9305	M-3 VACUUM PUMP	9305
11-9487	10" VACUUM PUMP	9487
11-9494	M5 VACUUM PUMP	9494
11-9602	M3 VACUUM PUMP	9603
11-9607	M3 VACUUM PUMP	9607
11-9615	M10 VACUUM PUMP	9615
11-9616	C-10 VACUUM PUMP	9616
11-9617	C-10 VACUUM PUMP	9617
11-9716	#10 VACUUM PUMP	9716
Category: 20 BACKHOES		
20-0039	1997 DEWATERING TRENCHER	D97022
20-0040	LIEBHERR BACKHOE	417-4205
20-0044	LIEBHERR BACKHOE	651-8110

ID	DESC	VIN#
20-0050	LIEBHERR BACKHOE	924-13441
20-0056	KOMATSU BACKHOE	30099
20-0059	Caterpillar Crawler Excavator	CAT0328DCGTN
20-0060	Caterpillar Crawler Excavator	CAT0336DEW3K
20-0063	2012 JOHN DEERE RUBBER TIRE	1FF220DWHBD4
20-0068	Komatsu PC390LC-10 Excavator	A30203
20-0069	Komatsu PC240LC-11 EXCAVATOR	95106
20-0070	Komatsu PC390LC-11 Excavator	30425
20-0071	Komatsu PC390LC-11 Excavator	A74180
20-0072	Komatsu PC138USLC-11	50542
20-0073	KOMATSU PC290LC-11 EXCAVATOR	A27538
20-0074	Komatsu PC138USLC-11 Excavator	50845
20-0075	Liebherr A900C	66375
20-0077	Cat 323 Excavator	RAZ00754
20-0078	Cat 325FLCR Excavator	NDJ20187
20-0079	Komatsu PC-238 Excavator	05489
20-0080	Komatsu PC-138 Excavator	52349
20-0081	Cat 307E2 Mini-Excavator	307-KC901075
20-0082	John-Deere 350G Excavator	1FF350GXLHF81
20-999	Rental Backhoe	
WR-BH01	Volvo Backhoe (Wakefield Road Boring)	
Category: 25	**COMBINATIONS**	
25-0051	CAT COMBO BACKHOE	BLN11885
25-0052	CAT COMBO BACKHOE	BML05166
25-0067	2013 CAT COMBINATION BACKHOES 420 F	CAT0420FHJWJ0
Category: 30	**LOADERS**	
30-0032	LIEBER LOADER	443-11966
30-0033	VOLVO LOADER L70E	L70EV60803
30-0038	2009 KOMATSU LOADER	65858
30-0039	2009 KOMATSU LOADER	65939
30-0040	950H CATTERPILLAR LOADER	CAT0950HVK5K0
30-0042	WA320-6 KOMATSU LOADER	A35279
30-0043	WA-380-7 KOMATSU LOADER	A64171
30-0044	WA200PZ-6 KOMATSU RUBBER TIRE LOAD	KMTWA105C010
30-0045	WA-320-7 KOMATSU LOADER	80194
30-0046	938K CATERPILLAR LOADER	SWL01382
30-0047	WA200-7 KOMATSU LOADER	80392
30-0048	WA380-8 KOMATSU LOADER	A74013
30-0049	Komatsu WA-380-8 Wheel Loader	A74180
30-0050	Cat 906M Wheel Loader	CAT906MCH6600
30-0051	Komatsu WA320-8	85209
30-0052	Komatsu WA270-8 Wheel Loader	A28201
30-0053	Cat 930M Wheel Loader	KTG03806
30-0054	Cat 930M Wheel Loader	KTG04062
30-0055	John-Deere 524L Wheel Loader	1DW524LKLZLKF
30-0056	John-Deere 544L	1DW544LZCKF6
30-999	Rental Loader	
Category: 35	**SPECIALIZED EQUIPMENT**	
35-0001	CRAWLER DOZER	T065HX898018
35-0027	2001 LOADER/BOBCAT	514147010
35-0041	T300 BOBCAT	525415212
35-0061	KUBOTA BACKHOE	30767
35-0064	2012 KUBOTA EXCAVATOR W/RUBTKS/4P	41826
35-0066	2013 KUBOTA EXCAVATOR	74888
35-0067	Cat 305E2 Excavator	H5M07145
35-0068	John-Deere 325G Compact Track Loader	1T0325GMJKJ34
35-999	Rental Mini	

ID	DESC	VIN#

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

JOHNINC-02 AMJOHNSO

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/24/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Johnson Insurance Racine 1103 Hunter Dr Ste 100 Mount Pleasant, WI 53406	CONTACT NAME: Amanda Johnson PHONE (A/C, No, Ext): (920) 445-7401 FAX (A/C, No): (877) 254-8586 E-MAIL ADDRESS: ajohnson@johnsonfinancialgroup.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : National Fire Insurance Company of Hartford	20478
INSURED Johnson-Davis, Inc. 604 Hillbrath Drive Lantana, FL 33462	INSURER B : Continental Casualty Company	20443
	INSURER C : Continental Insurance Company	35289
	INSURER D : Valley Forge Insurance Company	20508
	INSURER E : Homeland Insurance Co of NY	34452
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR			6080884045	7/1/2020	7/1/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 300,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO			6080884059	7/1/2020	7/1/2021	BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
C	X UMBRELLA LIAB X OCCUR			6080884076	7/1/2020	7/1/2021	EACH OCCURRENCE	$ 5,000,000
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$ 5,000,000
	DED X RETENTION $ 0							$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N	N/A		6080884062	7/1/2020	7/1/2021	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
C	Equipment Floater			6081007778	7/1/2020	7/1/2021	Leased Rented	300,000
E	Pollution			7930030920005	7/1/2020	7/1/2021	Occ/Aggregate	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Johnson-Davis, Inc.
863 S. Kings Highway
Fort Pierce, FL 34945

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Ruth Voeltz

ACORD 25 (2016/03)

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Detail by Entity Name

Florida Profit Corporation
JOHNSON - DAVIS INCORPORATED

Filing Information

Document Number	538772
FEI/EIN Number	59-1753888
Date Filed	07/06/1977
State	FL
Status	ACTIVE

Principal Address

604 HILLBRATH DRIVE
LANTANA, FL 33462

Changed: 04/01/1986

Mailing Address

604 HILLBRATH DRIVE
LANTANA, FL 33462

Changed: 04/01/1986

Registered Agent Name & Address

JOHNSON, SCOTT J
604 HILLBRATH DRIVE
LANTANA, FL 33462

Name Changed: 03/20/1996

Address Changed: 12/18/2009

Officer/Director Detail

Name & Address

Title P

JOHNSON, SCOTT J.
18843 SE JUPITER RIVER DR
JUPITER, FL 33458

Title TS

JOHNSON, CHRISTOPHER

7541 BRIAR CLIFF CIR
LAKE WORTH, FL 33467

Title VP

HOPLER, ROBERT A
11370 TWELVE OAKS WAY
NORTH PALM BEACH, FL 33408

Title ESTIMATING MANAGER

CRYER, WILLIAM
170 RIVER DRIVE
TEQUESTA, FL 33469

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Annual Reports

Report Year	Filed Date
2019	01/02/2019
2020	01/07/2020
2020	03/25/2020

Document Images

03/25/2020 -- AMENDED ANNUAL REPORT	View image in PDF format
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01/25/2001 -- ANNUAL REPORT	View image in PDF format
04/03/2000 -- ANNUAL REPORT	View image in PDF format
03/24/1999 -- ANNUAL REPORT	View image in PDF format
01/29/1998 -- ANNUAL REPORT	View image in PDF format
01/28/1997 -- ANNUAL REPORT	View image in PDF format

JOHNSON-DAVIS, INC
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ADDENDUM NO. 1
TO
CONTRACT DOCUMENTS

June 15, 2020

PROJECT TITLE: TOWN OF JUPITER
STORMWATER UTILITY INFRASTRUCTURE REPAIRS
UNIT PRICE CONTRACT (S2029)

TO: All Plan Holders of Record

This addendum forms a part of the Contract Documents and modifies the original Project Documents as noted below. **Acknowledge receipt of this Addendum in the space provided on the Bid Proposal form.**

GENERAL

PRE-BID MEETING

A non-mandatory, pre-bid meeting for this project was held virtually on June 10th, 2020; the meeting minutes and attendance list from that meeting are included as part of this addendum.

IN THE FRONT ENDS

INSTRUCTIONS TO BIDDERS

27. OPEN END CONTRACT

DELETE Paragraph 27.3 in its entirety and **REPLACE** it with the revised Paragraph 27.3 as included in this addendum.

27.3 The Initial term of the Contract will be two years (730 calendar days) from the date of Notice to Proceed. Owner may at Owner's sole discretion renew its Contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years, in accordance with the Town of Jupiter's Purchasing Policy and terms of the original Contract. Renewals will be in writing by change order to the Contract and are subject to the same terms, conditions, and

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604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

unit pricing set forth in the initial Contract and any written amendments/change orders signed by both parties (Owner and Contractor). No compensation shall be made for costs associated with renewal of the Contract. Renewals are contingent upon satisfactory performance evaluations by the Owner and subject to the availability of fiscal year funding approved by the Jupiter Town Council. Contractor may elect not to extend the Contract with 90 days written notice to Owner. Owner is not obligated to extend the Contract. Regardless of anything to the contrary, this Contract may be terminated by the Owner at any time and for any reason. Further, the Contractor agrees that it will not be entitled to any claims and/or damages resulting from such termination, including, but not limited to, lost profits, direct or indirect damages, and consequential special or punitive damages.

AGREEMENT (CONTRACT) BETWEEN OWNER AND CONTRACTOR

ARTICLE 3. CONTRACT TIME

DELETE Paragraph 3.3 in its entirety and **REPLACE** it with the revised Paragraph 3.3 as included in this addendum.

3.3 The Initial term of the Contract will be two years (730 calendar days) from the date of Notice to Proceed. Owner may at Owner's sole discretion renew its Contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years, in accordance with the Town of Jupiter's Purchasing Policy and terms of the original Contract. Renewals will be in writing by change order to the Contract and are subject to the same terms, conditions, and unit pricing set forth in the initial Contract and any written amendments/change orders signed by both parties (Owner and Contractor). No compensation shall be made for costs associated with renewal of the Contract. Renewals are contingent upon satisfactory performance evaluations by the Owner and subject to the availability of fiscal year funding approved by the Jupiter Town Council. Contractor may elect not to extend the Contract with 90 days written notice to Owner. Owner is not obligated to extend the Contract. Regardless of anything to the contrary, this Contract may be terminated by the Owner at any time and for any reason. Further, the Contractor agrees that it will not be entitled to any claims and/or damages resulting from such termination, including, but not limited to, lost profits, direct or indirect damages, and consequential special or punitive damages.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

IN THE TECHNICAL SPECIFICATIONS

SECTION 01010 SUMMARY OF WORK

DELETE Section 01010 in its entirety and **REPLACE** with revised Section 01010 included in this addendum.

SECTION 01030 HURRICANE PREPAREDNESS

DELETE Section 01030 in its entirety and **REPLACE** with revised Section 01030 included in this addendum.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

Pre-Bid Meeting Agenda
June 10, 2020 11:00 AM

Stormwater Utility Infrastructure Repairs
Unit Price Contract (S2029)

Location: Virtual Pre-Bid Meeting on zoom.us
Zoom Meeting ID: 521 761 2434
Zoom Meeting PW: S2029

I. Meeting Attendance

Attendance at the virtual meeting was documented based on participants logged into the Zoom meeting. Additionally, the Town conducted a roll call. Meeting attendees were recorded on the sign-in sheet. A copy of the sign-in sheet will be included with the meeting minutes posted to Demand Star.

II. Introductions

Rebecca Wilder – Town of Jupiter Utilities Senior Engineer
David Rotar – Town of Jupiter Utility Services Manager
Other Attendees

III. DemandStar

The Town reviewed the process for obtaining bid documents for the project by reading the following:

Bid documents are available through Demandstar.com. Instructions for obtaining plans and specifications from www.demandstar.com are provided in the Invitation to Bid and the Instructions to Bidders in the Front End Bid Documents for the project. All addenda to the Bid Documents will also be posted to Demandstar.com

Bidders do not need to be a member of demandstar.com to obtain bid documents. Documents can be downloaded for $5.00 from Demandstar by signing up for a free agency subscription for the Town of Jupiter at www.demandstar.com. Hard copies of bid documents may also be purchased from Demandstar by visiting www.demandstar.com or email demandstar@onvia.com. Payment for Bid Documents is non-refundable.

Bidders are responsible to use complete sets of Bid Documents including Addenda for preparing Bids. The Town is not responsible for any errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

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IV. Bid Opening

Sealed bids must be delivered to the Town of Jupiter at the office of the **Town Clerk**, 210 Military Trail by 2:00 pm on Tuesday, June 30, 2020. Bids received after this time will not be accepted. Bids will be publicly opened and read aloud in the Town Council Chambers.

V. Questions Concerning the Bid

Questions concerning the bid will be answered by addendum through Demandstar.com. All questions shall be directed to Rebecca Wilder in writing by fax (561) 747-5634 or email rebeccaw@jupiter.fl.us (with Project Name in the subject of the email). Emails should be delivered with a Read Receipt requested to confirm successful receipt by the Town. Oral and other interpretations or clarifications will be without legal effect.

If questions are emailed and you do not receive a response to your question within 24 hours, please call Rebecca at 561-741-2635 as there is a chance that your email was held up in the Town's spam filter.

VI. Bid Security

Bid Security in the amount of five percent (5%) of the value of the initial contract term ($1,015,000) must accompany each bid in accordance with the Instructions to Bidders.

VII. Contractor Qualifications

- **The successful bidder must be a licensed General Contractor or a licensed Underground Utility and Excavation Contractor in the State of Florida.**
- The successful bidder must hold a Town of Jupiter occupational license at the time of contract award.
- The successful bidder must have completed and submitted both the Safety Qualification Form and the Bidder's Qualification Form with their bid.
- Contractor must perform a minimum of 60% of the work of this contract with his/her own forces.
- If the Bidder proposes to utilize a Subcontractor(s) for any components of work under this contract they shall provide the name, address, qualifications and license of their proposed Subcontractor(s) on separate sheets.
- The successful bidder must have past projects of similar type and magnitude that have been completed within budget and on schedule, he/she has sufficient manpower and equipment to complete the Work, that past projects have been managed professionally and construction quality and field supervision are professional and of best industry practice.

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- The Town will evaluate experience and conduct reference checks as part of the bid evaluation process to assess whether Bidder is qualified

VIII. Contract Duration

The contract duration is as follows:
Substantial completion is **730** calendar days beginning on the date of Notice to Proceed and for final completion is **730** calendar days beginning on the date of Notice to Proceed.

The Contract does contain provisions to renew the contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years.

IX. Permits

The work associated with this contract is maintenance work and is not subject to Town or County drainage permit requirements. All work must meet federal, county and local safety standards including but not limited to meeting the OSHA Trench Safety, Town of Jupiter's NPDES requirements, applicable maintenance of traffic requirements, hurricane preparedness and other miscellaneous permit requirements. In the event work does require a Town or County Permit, Owner will assist Contractor with preparing and submitting Engineering drawings/plans and permit applications and pay any associated permit fees.

Miscellaneous permits required to be obtained and paid for by the contractor include: tree removal permits, dewatering permits, NPDES NOI permits, maintenance of traffic approvals. Contractor is responsible to pay for any permits and/or fees associated with any of these types of permits.

X. Project Description

Provide stormwater utility infrastructure repairs, replacements and/or installations on an as needed basis utilizing one or a combination of a number of unit price bid items. These items may include, but are not limited to: bypass pumping; realigning or replacing inlet/manhole castings; sealing and/or grouting storm water pipe joints; installing new manholes/conflict boxes/catch basins; pipe to structure connection repairs; storm water pipe point repairs; slip lining; cured in place lining; canal dredging/cleanout and restoring miscellaneous surface improvements such as asphalt roadway replacement, pavement overlay, concrete sidewalk replacement, concrete curb and gutter replacement, sod replacement, fence replacement and other improvements as described by the Bid Documents.

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The Bid Schedule of Values is inclusive of the various tasks expected to be implemented under this Contract, and represents a "menu" of options from which the Town may select to complete various maintenance, repair and/or replacement of Stormwater system components. Quantities provided for each Bid Item in the Bid Schedule of Values are not necessarily the quantities that will be completed during the contract but instead are provided as a means for evaluating bids and obtaining balanced bids.

The Bid Documents provide a table of estimated funding for each year of the contract, which is based on the projected budgets for stormwater rehabilitation and maintenance in those respective years. However, the amount of work authorized under this contract is dependent upon fiscal year funding.

The Town will notify the Contractor when Stormwater utility infrastructure repair needs are required. The Contractor is expected to submit a proposed scope of work to the Town for review and approval. The scope of work must include a detailed description of work to be performed corresponding to items listed by Task in the Bid Schedule of Values. Upon receipt and approval, the Owner will issue a work authorization to Contractor to begin work. If deviations from this scope of work must occur, the Contractor shall submit a revised proposal with changes clearly outlined prior to the commencement of additional work

For non-emergency work orders, the Contractor shall provide the Town with a detailed scope of work and proposal with supporting documentation within ten (10) days. The Town will provide comments or approval of the proposal within five (5) days. The Town will provide the Contractor with a Work Order Authorization within ten (10) days of the Town's approval.

For emergency work orders, the Contractor shall respond and be actively working on the site within 24-hours. The Contractor will be required to submit an estimated cost for labor and materials for which the Town will issue an emergency purchase order.

XI. Contract Administration

1. The Town of Jupiter will be performing the contract administration and field observation services on this project.

2. Progress Meetings: upon contract execution, the Town will schedule a pre-work meeting with the Contractor to discuss items including contract administration, upcoming work projects, process for issuance of work orders and application for payments, shop drawings and submittals, and other appropriate matters. Throughout the Contract duration, the Contractor shall be prepared to conduct a site visit with the Town upon the Town's request for a proposal to complete

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maintenance work. The purpose of the site visit meeting will be to discuss and determine the detailed scope of work including MOT, existing conditions, restoration needs and any other factors that may determine or affect the scope of work. Prior to commencement of a Work Order Project, a pre-construction conference will be held a mutually agreed time and place and shall be attended by the Contractor, Superintendent and any subcontractors as appropriate. Additional progress meetings may be scheduled by the Town, as required, and shall be attended by the Contractor or Contractor's representative; other attendees such as subcontractors may attend as well. The Contractor's representative at the meeting musts have authority to make decisions on behalf of the Contractor.

3. Storage and Laydown Area: The Contractor may use TOJ Right-of-Way for staging, storage and laydown areas; these areas must be kept out of vehicular clear zones and not impede any sight visibility triangles.

4. Safety: During construction, trench safety must carefully be monitored during all phases of the project. The Bidder will be required to complete and submit all the required forms concerning trench safety and include them with their bid. For any work completed at the Town's Water Plant, the Contractor and workers will be required to attend a Safety Orientation Meeting prior to commencement of the project.

5. Water for Construction Purposes: There will be no charge to the Contractor for water usage associated with this Contract unless it is determined by the Owner that the Contractor is being wasteful with the water. It is the Contractor's responsibility to purchase and obtain a temporary hydrant meter from the Jupiter Utilities Department.

6. Measurement and Payment: Bidder should closely review Section 01025, Measurement and Payment in preparing a bid. This section provides guidance and clarification to the costs that are to be included in the various bid items. Bidders are responsible to notify the Owner of any items not specifically called out in Section 01025 for which they feel there should be a bid item. Any cost that Bidder believes to be necessary to fulfill the Contract requirements but is not specifically identified in Section 01025 should be included in the Bid Item that Bidder deems to be most appropriate. Bidders are advised that payment for Bid Items paid for on an hourly basis will be paid for actual hours worked. Detailed work logs, invoices, vendor receipts, etc. are required to be maintained and submitted with each pay application as backup for requested pay items and associated quantities where applicable.

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XI. Other Items Discussed

- Miscellaneous materials, equipment and services may be required to complete a requested project that are not already included in the Bid Schedule of Values. The Contractor shall detail these items in the proposed Scope of Work and include the appropriate mark-up as detailed in the General Conditions of the Contract: 15% for materials and equipment and 5% for subcontracted services (i.e., MOT). The Contractor may be required to obtain prices from up to three (3) vendors for the Town's review. The Town may direct purchase the materials or equipment as detailed in the Supplementary Conditions of the Contract. In either situation, it will be the Contractor's responsibility to provide material quantities, take receipt of delivery, schedule and coordinate with the vendor.

- Contractors shall provide adequate notice prior to starting work

- There were no questions by attendees during the pre-bid meeting

Meeting ended at: 11:30am

cc: Demandstar
Amanda Barnes/S2029 Meeting Minutes File
Meeting Attendees

Non-Mandatory Pre-Bid Meeting Attendance Sheet
Town of Jupiter Utilities
Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

June 10, 2020
11:00 AM

	Name	Company Name	Phone Number	Email Address
1	Rebecca Wilder	Town of Jupiter	561-741-2635	RebeccaW@jupiter.fl.us
2	David Rotar	Town of Jupiter	561-741-2701	DavidR@jupiter.fl.us
3	James Donaldson	Nu Pipe	843-764-7223	jamie@nupipeus.com
4	Tom Pearse	Ferreira Construction	772-286-5123	tpearse@ferrreiraconstruction.com
5	Van Williams	Deevan	561-844-5518	vwilliams@deevaninc.com
6	Clark Cryer	Johnson Davis	561-718-4531	ccryer@johnsondavis.com
7	Ron Rossi	DS Eakins	561-842-0001	ron@dseakins.com

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SECTION 01010 (REVISED ADDENDUM 1)

SUMMARY OF WORK

PART 1 – GENERAL

1.01 GENERAL

A. The purpose and intent of this Contract is to establish an hourly priced contract for the provision of crews with equipment to be used by Town of Jupiter Utilities Department to perform miscellaneous stormwater utility infrastructure maintenance, repairs, and or improvements through the issuance of individual Work Orders. Crews and equipment shall be available on an "as needed" basis with no guarantee by the Town of the amount of usage. Contractor shall be prepared to provide crews and equipment to respond to non-emergency and emergency work as well as hurricane and natural disaster related events.

B. For all non-emergency work orders, the Contractor will be required to submit a materials list with quantities, including restoration, with pricing from at least two different vendors for those items not included in the Bid Schedule of Values for the Town's consideration. The Town may direct purchase the materials under the Sales Tax and Use Program (described in the Supplemental Conditions) or ask the Contractor to purchase materials allowing a fifteen percent (15%) mark up on material pricing. Contractor shall also provide pricing for any subcontracted work as required to complete the Work. The allowable mark up on sub-contractor pricing will be five percent (5%). If Town is to direct purchase materials under the Sales Tax and Use Program, Contractor shall provide the Town with the materials list and quantities, coordinate with vendor for ordering, and delivery of materials, and haul the materials as needed to the job site.

C. For emergency work orders the Contractor will be required to submit an estimated material list with quantities and pricing, to the extent practical, including restoration for the Town's for approval. The Contractor will be responsible for the purchase of the materials, material delivery, schedule and all coordination with the vendor in emergency repair situations. Allowable Contractor mark up on materials is fifteen percent (15%) and on subcontracted work is five percent (5%).

D. For hurricane or natural disaster related response, the Contractor will be required to submit a Letter of Commitment (LOC) to the Town within fourteen (14) days of the date of the Notice to Proceed. The LOC shall detail the Contractor's ability to be available on an as-needed, on-call basis for hurricane or natural disaster events along with emergency labor and equipment rates. The LOC and emergency response activities shall

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be for work related to hurricane or natural disaster preparations prior to the event and/or recovery activities immediately following the event that are outside of and in addition to Contract Work. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response and will be paid at the labor and equipment rates provided in the LOC.

E. Normal work hours under this Contract are Monday-Friday, 7:00am - 5:00pm. Work requiring inspection by Town representatives shall be scheduled to occur between 8:00am – 4:00pm, Monday-Friday. No work will be permitted on weekends, Town observed holidays, or outside of normal work hours without written approval by the Town. Contractor must request in writing, from the Town, permission to work outside of normal work hours at least one week in advance.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Furnish all labor, equipment, and materials (if applicable) to perform miscellaneous stormwater utility infrastructure maintenance, repairs, and/or improvements at the direction of the Town.

B. Prior to construction, the Contractor shall identify existing utilities. The Contractor will be responsible for the coordination of his work with the associated utility owners and permitting agencies having jurisdiction over the specific locations to be verified.

C. The Work may include providing temporary storm water facilities, bypass pumping or plugging, dewatering, and other appurtenant and miscellaneous items and work for a completed project. Sound attenuation shall be provided by Contractor for dewatering and by-pass pumps as needed to comply with the Town of Jupiter Noise Ordinance. Town will review each project with Contractor before asking Contractor to provide a proposal for the Town's review. Upon acceptance, the Town will provide a notice to proceed through issuance of a work order for the project.

D. Work shall be performed to minimize, to the greatest extent practical, traffic disruption and/or storm sewer downtime. Work must be coordinated, in advance, with utility personnel, affected residents, public and private entities, and/or regulatory agencies.

E. Acceptable Maintenance of Traffic (MOT) is the responsibility of the Contractor. Contractor shall submit MOT plans for approval to the Town and appropriate regulatory agencies before work begins with the cost of MOT included in the proposal for Work Order.

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F. Contractor's Duties:

1. Contractor shall be a Florida licensed underground contractor. Equipment operators must be fully licensed, as applicable, and competent in the use of the assigned equipment. Failure to comply with any of these requirements is sufficient cause to terminate contract because of default by the Contractor.

2. The Contractor will be responsible for repairs and maintenance of its equipment. The equipment will be operated by the Contractor and kept in good working condition, including all grease, oil, parts and fuel as necessary.

3. Contractor's equipment deemed defective by the Town of Jupiter representative shall be promptly removed from the site. Personnel employed either directly or indirectly by the Contractor, who are deemed to be incompetent, inept or unfit to perform the work in the opinion of the Town of Jupiter Project representative, shall be promptly removed from the project under this Contract, and such personnel shall not again be employed to work on the project. Failure of the Successful Bidder to remove defective equipment or incompetent personnel may result in the termination of this Contract.

4. Subcontractors (when used) shall work directly for the Contractor and Contractor shall have a representative on site when sub-contractor is working.

5. Contractor is responsible to schedule and coordinate field materials testing services (i.e., density testing, concrete cylinders, etc.) with the Town's contracted geotechnical testing lab assigned to this contract. Contractor shall keep Town's Field Representative informed of scheduled testing services and Town's Field Representative must be present while field testing services are being performed. Town will pay for field testing services unless Town was not informed of scheduled testing and therefore not present or test results are unacceptable.

6. In the event of a hurricane or natural disaster, the Town will advise the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Town in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Town's facilities prior to an event and respond to the Town's facilities immediately following an event.

7. Review and incorporate Town-reviewed shop drawings, product data, and samples into the construction of the project.

8. Demolish, haul and dispose of, in a legal manner, all materials scheduled for demolition.

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9. Receive and unload products at site; inspect for completeness or damage jointly with Town.

10. Repair or replace items damaged after receipt.

11. Arrange for product delivery to site.

12. Handle, store, protect and install all delivered products.

13. Submit claims for transportation damage and replace damaged, defective, or deficient items.

14. Arrange for manufacturers' warranties, inspections, and service.

15. Provide the Town with a one-year warranty on all equipment and workmanship from the date of substantial completion of each work order.

G. No guarantee is expressed or implied as to the total range and/or quantity of bid items to be issued in Work Orders under this contract. Estimated quantities on the Bid Schedule of Values are for Bid comparison purposes only. The Town reserves the right to issue Work Orders as and when required for proposed work for any, all, or any combination of bid items thereof. Town does not guarantee any value of work to be performed under this Contract.

H. Specific work orders for stormwater facilities and collection system rehabilitation, repair, improvement, construction will be developed between the Contractor and Town based on Contract Unit pricing, material pricing, and technology and remedial construction services as needed to complete the Work contemplated. Town reserves the right to select the technology for the scope of work contemplated.

I. Materials supplied and construction performed under this Contract shall comply with the latest version of Town of Jupiter Water and Stormwater Guide for Development, Design and Construction Standards and Engineering and Public Work Construction Standards, available on the Town of Jupiter website, www.jupiter.fl.us. Work performed in FDOT or Palm Beach County right of ways must comply with those agencies standards.

1.03 WORK BY OTHERS

A. The Contractor's attention is directed to the fact that work may be conducted at the sites by other contractors during the performance of the Work under this Contract. The Contractor shall conduct its operations so as to minimize interference, to the greatest extent practical, with the Work of other contractors, and shall cooperate fully with such

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contractors to provide continued safe access to their respective portions of the sites, as required to perform their respective contracts.

B. The Contractor shall cooperate fully with all utility forces of the Town or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the Work, and shall schedule the Work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.04 SCHEDULE AND COORDINATION

A. The Town will notify the Contractor when maintenance, repair or improvements to Stormwater Utility infrastructure are required. The Contractor shall be prepared to conduct a site visit to be familiarized with existing conditions, prepare and submit a detailed scope of work, provide adequate notice prior to scheduling the work and mobilize to the site to complete work according to the time frames provided below.

B. For non-emergency work orders, the Contractor shall meet with the Town or visit the work site within five (5) working days of receiving a request from the Town. The purpose of this meeting will be to discuss and determine the scope of work, existing conditions that should be considered during construction and restoration, and any other factors that may determine or affect the scope of work. Within ten (10) working days of the meeting, Contractor shall provide Owner with a detailed scope of work, detailed cost estimate (including labor, equipment and materials) with supporting documentation, and a schedule for the work. Owner will provide comments or approval for the proposal within five (5) working days of receipt from Contractor. Owner will provide Contractor with a Work Order Authorization and associated purchase order within ten (10) working days of Town's approval of proposal. The Contractor shall notify the Town at least five (5) working days prior to mobilizing to the site to complete the work. Upon mobilization, the Contractor shall diligently work to complete Stormwater Utility Infrastructure repairs or improvements as detailed in their scope of work and schedule. Delays shall be communicated in advance and work scope and schedule revised as needed and approved by the Town.

C. For emergency work orders, the Contractor shall meet with the Town the same day that they are notified of an emergency repair. Within twenty-four (24) hours, the Contractor shall provide an estimated labor, materials and equipment list for the Town's approval. The Town will issue an emergency Work Order authorization and purchase order. Upon the Town's approval, the Contractor shall mobilize to the site within twenty-four (24) hours or to the extent practical to begin repair activities. As the emergency work progresses, the Contractor shall revise and update the scope of work, as needed, for the Town's review and approval.

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D. For hurricane and natural disaster related events, the Town will notify the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Town in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Owner's facilities prior to an event and respond to the Owner's facilities immediately following an event. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response not related to Contract Work and will be paid at the labor and equipment rates provided in the LOC.

1.05 FIELD LAYOUT OF WORK

A. All work under this Contract shall be constructed in accordance with the information stipulated by the Contract and provided by the Owner, on drawings, sketches, photographs, and in other written documentation for each Work Order or as modified by the Owner. Elevations of existing ground, structures and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the Owner for interpretation or correction.

B. All survey work and materials for construction control purposes and record drawings shall be made by the Contractor at his expense and shall be included in the proposal for work order. The Contractor shall establish all base lines for the location of the principal component parts of the work together with bench marks and batter boards adjacent to the work. Based upon the information provided by the sketches and/or drawings, the Contractor shall develop and make all detail surveys necessary for construction. If necessary, the Owner will assist with furnishing information and locations for existing bench marks.

C. The Contractor shall have the responsibility to carefully preserve the bench marks, reference points and stakes. In case of destruction thereof by the Contractor or resulting from his negligence, he shall be held liable for any expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.

D. Existing or new control points, property markers, and monuments that will be established or are destroyed during the normal causes of construction shall be re-established by the Contractor; and all reference ties recorded therefore shall be furnished to the Owner. All computations necessary to establish the exact position of the work shall be made and preserved by the Contractor. Contractor shall review field layout and staking with Owner prior to proceeding with work.

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E. Specific Staking Requirements: When performing construction as part of this contract, the Contractor shall set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work no greater than 50 feet on tangents and 25 feet on curves, or as needed for Town's Field Representative to evaluate the proposed improvements.

F. Personnel, Equipment, and Record Requirements: The Contractor shall employ only competent personnel and use only suitable equipment in performing layout work. The Contractor shall not engage the services of any person or persons in the employ of the Owner for performance of layout work. The Contractor shall keep adequate field notes and records while performing layout work. The Contractor shall make these field notes and records available for the Owner's review as the work progresses, and furnish copies to the Owner at the time of completion of the project. The Owner's inspection, checking, or acceptance of the Contractor's field notes or layout work does not relieve the Contractor of his responsibility to achieve the lines, grades, and dimensions necessary to complete the work properly. Prior to final acceptance of the project, the Contractor shall re-establish in a permanent manner on the surface of the completed work, all existing and new control points, property markers, and monuments.

G. The Owner may check all or any portion of the work including but not limited to sidewalks, curb, subgrade, base, pavement elevations, pipe inverts, basin elevations, and any other areas or items, and the Contractor shall afford all necessary assistance to the Owner in carrying out such checks. Any necessary corrections to the work shall be performed immediately by the Contractor.

1.06 CONTRACTOR USE OF PROJECT SITE

A. The Contractor's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices. Off-site storage of materials will be arranged for by the Contractor and a copy of an agreement for use of other property shall be furnished to the Owner.

1.07 PARTIAL UTILIZATION OF THE WORK BY OWNER

A. The Contractor is hereby advised that the Owner may accept the responsibility for the maintenance and protection of a specific portion of the project if utilized prior to completion. However, the Contractor shall retain full responsibility for satisfactory operation of the total project.

1.08 SITE CONDITIONS

A. The Contractor acknowledges that conditions affecting the work vary, including but not restricted to those bearing upon transportation, disposal, handling and storage of

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materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides, water tables or similar physical conditions at the site, the conditions of the ground, fill, existing improvements, the character of equipment and facilities needed preliminary to and during prosecution of the Work. The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Owner.

B. Contractor is responsible to familiarize himself with each project site and the associated site conditions before submitting a proposal for work order for Owner's consideration. Any conditions that affect Contractor's ability to perform the work in accordance with Town of Jupiter Utilities and Engineering/Public Works construction standards and details (available on the Town's website www.jupiter.fl.us) shall be included in the proposal for work order.

PART 2 -- PRODUCTS - (Not Used)

PART 3 -- EXECUTION - (Not Used)

– END OF SECTION –

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SECTION 01030 (REVISED ADDENDUM 1)

HURRICANE PREPAREDNESS

PART 1 – GENERAL

1.01 GENERAL

A. The Contractor's attention is drawn to the possibility of hurricane or severe storm conditions occurring at the site of work during the course of Contract Work.

B. Within fourteen (14) days of the date of the Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan specific to this project. The plan should outline the necessary measures which the Contractor proposes to perform related to Contract Work at no additional cost to the Owner in case of a hurricane or severe weather warning.

C. The Contractor shall also include a Letter of Commitment (LOC) with the Hurricane Preparedness Plan. The LOC shall detail the Contractor's ability to be available on an as-needed, on-call basis for hurricane or natural disaster events along with emergency labor and equipment rates. The LOC and emergency response activities shall be for work related to hurricane or natural disaster preparations prior to the event and/or recovery activities immediately following the event that are outside of and in addition to Contract Work.

D. In the event of inclement weather, or whenever the Owner shall direct, the Contractor shall, and will, cause Subcontractors to protect carefully the Work and all materials and equipment from experiencing damage or causing injury by extreme weather. Work and materials damaged shall be removed and replaced at the expense of the Contractor.

1. Hurricane Watch: Upon designation of a hurricane watch, the Contractor shall be responsible for removing all loose supplies and equipment from the job site that may pose a danger. Contractor may provide the Owner with alternatives to removing the equipment and materials from the site, provided that the methods are reasonable considering the impending threat of storm. The Owner does not need to approve the alternative method should he feel it is not in the best interest of the Town. In addition, the Contractor shall remove all bulkheads and plugs in pipelines that would impede drainage in the case of flooding. Structures that may be in danger of floatation shall be flooded. The Contractor shall also cooperate with the Owner in protecting any other structures at the site from receiving poor quality runoff resulting from activities.

2. Hurricane Warning: No mobile "temporary facility" shall be staffed during a hurricane warning. Contractor facilities meeting these criteria shall be evacuated. Reasonable steps shall be taken to protect all such facilities and their

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contents from damage and to avoid the facility from causing damage to the surroundings.

E. The Contractor may be required to backfill excavations depending on the severity of the approaching storm or the expected amount of rainfall. Additionally, erosion protection and inlet protection will be required depending on the site conditions at the time of the Hurricane Watch.

F. Contractor shall be responsible to securely tie down large items and remove small lighter items from the job site upon notification to do so by the Owner. Equipment with booms or high rise pieces shall be lowered and secured.

G. In the event of a hurricane or natural disaster, the Owner will notify the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Owner in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Owner's facilities prior to an event and respond to the Owner's facilities immediately following an event. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response not related to Contract Work and will be paid at the labor and equipment rates provided in the LOC.

- END OF SECTION -

The undersigned states that this bid proposal is the only proposal for this project in which he is interested and certifies that all of the information provided in this bid proposal is true and correct.

SUBMITTAL DATE 6/30/2020

FIRM NAME Johnson-Davis Incorporated

FEDERAL EMPLOYER IDENTIFICATION NUMBER (FEIN) 59-1753888
(if the entity has no FEIN, include the Social Security Number of the individual signing this Proposal _____.)

BUSINESS ADDRESS 604 Hillbrath Drive, Lantana, FL 33462

BUSINESS TELEPHONE (561) 588-1170

PRINT NAME AND TITLE OF RESPONSIBLE OFFICIAL Wm. Clark C. Cryer, Estimating Manager

EMAIL ADDRESS OF RESPONSIBLE OFFICIAL ccryer@johnsondavis.com

SIGNATURE OF RESPONSIBLE OFFICIAL _____

STATE OF INCORPORATION FLORIDA

FULL NAMES AND ADDRESSES OF PERSONS OR PARTIES INTERESTED IN THE FOREGOING BID, AS PRINCIPALS:

Scott J. Johnson - President - 604 Hillbrath Drive, Lantana, FL 33462, Robert A. Hopler - Vice President - 604 Hillbrath - 604 Hillbrath Drive, Lantana, FL 33462, Christopher Johnson - Secretary/Treasurer - 604 Hillbrath Drive, Lantana, FL 33462

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JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
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Contractor Safety Qualifications/Requirements

1. APPLICABILITY

Any contractors performing maintenance, repair, turnaround, major renovations, or specialty work on or adjacent to the hazardous chemical process at the Jupiter Water Treatment plant is subject to the contractor safety requirements of the Environmental Protection Agency Risk Management Program (40 CRF 68.87) and the Occupational Safety and Health Administration's Process Safety Management Program (29 CRF 1910.119(h)).

CONTRACTOR SHALL SUBMIT A COMPLETED COPY OF THE ATTACHED "CONTRACTOR SAFETY QUALIFICATION FORM" WITH THEIR BID. FAILURE TO INCLUDE THIS FORM WITH THE BID IS GROUNDS FOR DISQUALIFICATION.

2. OWNER RESPONSIBILITY

(A) Selecting a Contractor:

1. When selecting a contractor, obtain and evaluate information regarding the contractor's safety program.

(B) Informing a Contractor:

1. Inform the contractor of the known potential fire, explosion, or toxic release hazards related to the contractor's work and regulated process.

2. Explain to the contractor the applicable provisions of the facilities emergency response program (i.e. alarms, evacuation routes, etc.)

3. Inform the contractor of the facility's safe work practices of operations such as:
   - Confined space entry
   - Equipment/line opening
   - Lockout/tagout Program
   - Control over entry into regulated (i.e. hazardous) process areas
   - Hot Work Permit

(C) Evaluating a Contractor's Performance

1. Evaluate the contractor's performance in fulfilling their requirements under this regulation.

3. CONTRACTOR RESPOSIBILITY

(A) Assure that each of the contractor's employees are trained in the work practices to safely perform his/her job, and to document that each employee understood the training. This documentation will include the name of employee, date of the training, and means used to verify that the employee understood the training.

(B) Assure that each of the contractor's employees are instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the process, and the applicable provisions of the emergency response plan.

(C) Assure that Contractor's employees and subcontractor's/laborers attend the WTP safety orientation and follow the facility's safety rules including safe work practices such as control over entry into hazardous chemical process areas, lockout/tagout, equipment/line opening, confined space safety, and hot work permit.

(D) Advise the facility owner of any unique hazard presented by the contractor's work, or of any hazards found by the contractor.

(E) Obtain and evaluate information pertaining to subcontractor's safety programs.

(F) Assure that subcontractor's and laborers are trained in their work practice to safety perform their jobs.

4. CONTRACTOR SUBMITTALS

(A). Training Certification

Prior to the commencement the contractor shall certify in writing to the Owner that those employees involved in work on or around the hazardous chemical process at the Jupiter Water Treatment Plant have successfully completed training in accordance with 40 CFR 68.87(c) and 29 CFR 1910.119(h)(3).

(B). Records Maintenance

The Contractor shall maintain a record of those employees who successfully completed the above training. These records must include the following information:

- Name of the employee
- Contents of training
- Date of training
- Means used to verify that the employee understood the training

(C). Additional Responsibilities

1. Contractor must immediately inform the Owner of all contract employee injuries or illness resulting from work performed on or around and hazardous chemical process.

2. Contractor must immediately inform the Owner of any injuries resulting from any work at the facility.

3. Contractor employees, subcontractors, and laborers must participate in a mandatory on-site safety orientation conducted by the Owner before work begins. It is the Contractor's responsibility to schedule these meetings with the Owner, and it is the Contractor's responsibility to ensure <u>all</u> persons working on the Water Treatment Plant site under this contract have attended the mandatory on-site safety orientation. Failure to do so will result in removal of those persons who have not received the training from the job site until such time as the training is obtained.

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Contractor Safety Qualification Form

SECTION 1: COMPANY INFORMATION	
Company Name:	Johnson-Davis Incorporated
Address 1:	604 Hillbrath Drive
Address 2:	
City, State, Zip:	Lantana, FL 33462
Telephone No.:	(561) 588-1170
Fax No.:	(561) 585-5252
SECTION 2: NAME(S) AND RELATIONSHIPS OF PARENT COMPANY, AFFILIATES, SUBSIDIARIES, PARTNERS	
Company Name:	N/A
Address:	
City, State, Zip:	
Relationship:	
Company Name:	
Address:	
City, State, Zip:	
Relationship:	

SECTION 3: INSURANCE COVERAGE

3.1 Please attach certificates showing the extent of coverage, exclusions and deductibles for the following:

- General Business Liability Insurance
- Professional Liability Insurance
- Contractors Pollution Liability Insurance
- Workman's Compensation Insurance

3.2 How long have you been covered by your current provider of Workman's Compensation Insurance?

Zurich, 7/1/2019 - 6/30/2020

3.3 List the Experience Modification Ratio (EMR) that has been applied to your company's workman's compensation insurance policy for the past five years:

Year	Intrastate EMR	Interstate EMR	Comments
2020-2021	.85	N/A	
2019-2020	.77	N/A	
2018-2019	.88	N/A	
2017-2018	.93	N/A	
2016-2017	.98	N/A	

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Contractor Safety Qualification Form (Continued)

3.4 List the contact information for an insurance broker who can verify your EMR's:

Name: Sharon Majeski
Address 1: Johnson Financial Group
Address 2: 318 S. Washington St.
City, State, Zip: Green Bay, WI
Telephone No.: (920) 453-7107

If you do not have an EMR, please explain:

SECTION 4: INJURY AND FATALITY INFORMATION

4.1 Please transfer the numbers and rates of injuries and illnesses from your firm's OSHA No. 200 Logs to the table below:

Statistic	Year: 2019		Year: 2018		Year: 2017	
	No.	Rate	No.	Rate	No.	Rate
Lost Workday Cases	2	1.03	7	3.52	0	0
Restricted Workday Cases	4	2.06	6	3.02	5	2.71
Medical Treatment (not First Aid) Cases	3	1.54	15	7.54	5	2.71
Total Illness Cases	9	4.63	15	7.54	5	2.71
Total Recordable Cases	9	4.63	15	7.54	5	2.71
Fatalities	0	0	0	0	0	0

4.2 If your company has had fatalities in the past three years include location, cause and corrective actions in the space below:

N/A

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Contractor Safety Qualification Form (Continued)

SECTION 5: SAFETY MEETINGS

5.1 Do you require that *documented* safety meetings be held for:

- Field Supervisors? X Yes __ No Frequency: 1 / WK
- Employees? X Yes __ No Frequency: 1 / DAY
- New Hires? X Yes __ No Frequency: Orient. 1 / DAY
- Subcontractors? X Yes __ No Frequency: 1 / WK

SECTION 6: SAFETY AUDITS

6.1 Will a representative of your company audit safety practices on this job?

X Yes __ No

Name: Andy Thomson Title: Director of Safety, Health & Risk Management

How frequently will the representative visit the project site? 2 / Month

SECTION 7: HEALTH AND SAFETY PROGRAM

7.1 Does the company have a health and safety program? If yes, please give details below. (The contractor is encouraged to attach a copy of the program to satisfy this requirement).

The JD Safety program addresses all items relevant to our work and working in Florida as well as Emergency planning, Covid-19 precautionary measures and compliance, and business continuity planning. *Please refer to the attachments

7.2 Please give the name and telephone number of your company's health and safety officer, if any:

Name: Andy Thomson Title: Director of Safety, Health & Risk Management

Telephone No.: (561) 588-1170

SECTION 8: HEALTH AND SAFETY CITATIONS

8.1 Attach a list of any State or Federal Health and Safety citations received during the past three years.

N/A

SECTION 9: SIGNATURE OF COMPANY OFFICER

I certify that to the best of my knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Name (print): Wm. Clark C. Cryer Title: Estimating Manager

Signature: _____ Date: 6/30/2020

Johnson-Davis, Inc.

Memo

Re: **Notice of Random Drug Screening**

In compliance with the Johnson-Davis, Inc. Drug-Free Workplace Policy, each employee, as a condition of continued employment, is subject to medical or physical examination or tests, including urine drug screen. An employee, who refuses to submit to drug testing, as provided for in this Policy, will be asked to leave the office or project site immediately and the employee will be discharged.

Please complete and sign the attached acknowledgement and authorization form and return to your foreman and/or superintendent. You must proceed to a LabCorp testing center in your local area upon receipt of this notice. (See superintendent for LabCorp locations).

A copy of the Johnson-Davis, Inc. Drug-Free Workplace Policy is also attached for your information and reference. Please keep a copy of this policy along with your employee handbook.

Thank you for your cooperation.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

WHAT TO DO ABOUT HARASSING CONDUCT . . .

An employee who believes he or another Company employee has been subjected to harassing conduct should immediately contact the Human Resources Director. A prompt investigation will be conducted of each and every complaint and appropriate action will be taken. Employees are required to participate in all J-D investigations.

Complaints will be handled confidentially, to the extent possible. The Human Resources Director has the responsibility for investigating and resolving complaints of harassment. In the event of a complaint involving the Human Resources Director, J-D's President should be notified and he will fulfill the investigatory role in this process.

No Retaliation or Reprisals

Employees have a duty to report any harassment they either experience or observe, regardless of whether the alleged harassment is being perpetrated by a J-D employee or any other third party. Under no circumstances will a person be retaliated against because of a bona fide report of harassing conduct.

Drug-Free Workplace

J-D is committed to protecting the safety, health, and well-being of its employees and all individuals who come into contact with its workplace and property, and/or use its products and services. As part of this mission, J-D is committed to maintaining a Drug-Free Workplace.

Substance abuse, which includes the possession, use or sale of illegal drugs or the unlawful use or misuse of lawful substances, including alcohol and prescription drugs, will not be tolerated. J-D also prohibits the illicit use, possession, sale, attempted sale, purchase, attempted purchase, conveyance, distribution, cultivation or manufacture of illegal drugs, intoxicants, or controlled substances in any amount or in any manner. It is a condition of employment at J-D to refrain from using illegal drugs and unlawfully using lawful substances, including alcohol and prescription medicines, and to abide by the guidelines of the Company's Drug-Free Workplace Policy.

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Certain employees of J-D, who operate commercial motor vehicles, and must be subjected to enhanced drug testing standards pursuant to the regulations of the Federal Motor Carrier Safety Administration contained in 49 C.F.R. Parts 40 and 382. J-D will provide these employees with a copy of J-D's Commercial Driver's License Drug Testing Policy and are expected to comply with the Policy's enhanced requirements in all respects.

JOHNSON-DAVIS INC.

"Construct With Confidence"

CORPORATE SAFETY MANUAL

Rev 5, 2/4/2019

• *Heavy Construction* • *Underground Utilities* •

Health & Safety Program Outline – Johnson – Davis Inc.

Introduction: "Management Commitment and Expectations"----------6

1. Safety Program – General Overview ----------7
   - 1.1. Duty to Become Familiar with the Program----------7
   - 1.2. Compliance with Safety Rules----------7
   - 1.3. Disciplinary Policy Related to Safety----------7
   - 1.4. "Timeline" of Safety Activities----------9
   - 1.5. Daily Pre-job Safety Meetings----------10
   - 1.6. Weekly Safety Talks----------10
   - 1.7. Safety Committees----------11
   - 1.8. Annual Refresher Training----------12
   - 1.9. Job Site Safety Audits----------12
   - 1.10. Site Specific Health and Safety Plans(SSHASP)----------12
   - 1.11. The "Activity Hazard Analysis" (AHA)----------13
   - 1.12. Training Requirements by Employee Level of Responsibility----------13
   - 1.13. New Employee Orientation----------14
   - 1.14. Subcontractors----------14
   - 1.15. Substance Abuse Program----------15
   - 1.16. OSHA's Focus Four – Rules to "Live" by ----------15
2. Roles and Responsibilities – General Overview----------16
   - 2.1. Conduct----------16
   - 2.2. Personal Responsibility and Accountability "Duty to Ourselves and Others"----------16
   - 2.3. Foremen----------16
   - 2.4. Superintendents----------17
   - 2.5. Safety Director/Safety Personnel----------18
   - 2.6. Emergency Planning----------19
   - 2.7. Weather----------19
   - 2.8. Incident Analysis and Reporting----------19
   - 2.9. Extended Work Hours----------23
3. Personal Protective Equipment (PPE) – General Overview----------24
   - 3.1. General----------24
   - 3.2. Clothing and Wearing of Apparel----------24
   - 3.3. Eye and Face Protection----------25
   - 3.4. Lasers----------26
   - 3.5. Head Protection----------26
   - 3.6. Hand Protection----------26
   - 3.7. Foot Protection----------27
   - 3.8. Hearing Protection----------27
   - 3.9. Respiratory Protection----------28
   - 3.10. Work Zone High Visibility Vests----------29

4. Hazardous Substances and Environments – General Overview----30
4.1. Hazard Communication Program/Globally Harmonized Standard----30
4.2. Asbestos----32
4.3. Lead in Construction----33
4.4. Silica----35
4.5. Raw Sewage----37
4.6. Heavy Equipment on Job Sites----37
4.7. Loading/Unloading Heavy Equipment----39
5. Trenching and Excavating – General Overview----40
5.1. Definitions----40
5.2. Pre-operation procedures----42
5.3. Soil Classification----42
5.4. Frequency of Soil Classification and Inspection----44
5.5. Access and Egress----45
5.6. Vehicular Traffic Exposure----45
5.7. Falling Loads----45
5.8. Warning Systems for Mobile Equipment----46
5.9. Hazardous Atmospheres----46
5.10. Excavating Equipment----46
5.11. Factors Affecting Trench Safety----47
5.12. Protective Systems----47
5.13. Benching----48
5.14. Shoring Regulations----49
5.15. Emergencies----52
5.16. Responsibilities----53
6. Fire Prevention and Protection – General Overview----54
6.1. Guidelines----54
6.2. Housekeeping----54
6.3. Smoking----55
6.4. Fire Protection----56
6.5. Fire Extinguisher Classifications----56
6.6. P.A.S.S. Method----57
7. Tools – Hand and Power – General Overview----58
7.1. General Requirements----58
7.2. Portable Electric Tools----59
7.3. Fixed Electric Tools----60
7.4. Pneumatic and Hydraulic Tools----60
7.5. Powder Actuated Tools----61
7.6. Portable Gas Powered Tools----61
8. Materials Handling – General Overview----63
8.1. Hazards----63
8.2. Controls for Protection Against Injury----63

8.3. Precautions for Safely Lifting and Handling Materials----64
8.4. Safe Lifting Practices----65
8.5. Pre-lift Inspection and Considerations----65
8.6. Mechanical Lifting Devices----66
8.7. Powered Lifting Devices – Forklift Operations----67
8.8. Handling Hazardous Materials and Storage----69
9. Ladders, Scaffolding and Aerial Lifts - General Overview----71
9.1. General Requirements for Ladders----71
9.2. Use of Ladders----72
9.3. General Requirements for Scaffolds----72
9.4. Aerial Lifts and Mobile Scaffolds----74
9.5. Bucket Trucks----75
9.6. Boom and Scissor Lifts----77
10. Confined Space Entry – General Overview----79
10.1. Definitions----79
10.2. Responsibilities----85
10.3. Confined Space Determination----89
10.4. Confined Space Classification----90
10.5. Alternate Procedure Entry spaces----91
10.6. Entry Permits----92
10.7. Hazard Evaluation----93
10.8. Confined Space Atmospheric Testing----93
10.9. Entry Procedures----97
10.10. Confined Space Entry Procedure Flowchart----98
10.11. Rescue and Emergency Services----99
10.12. Emergency Response----100
10.13. Breathing Equipment----101
10.14. Warning Signs and Symbols----101
10.15. Subcontractors----102
10.16. Stored Energy Isolation and Lock-out Tag-out----103
10.17. Personal Protective Equipment----103
10.18. Training----104
10.19. Documentation----105
11. Electrical Safety – General Overview----106
11.1. General Requirements----106
11.2. Lock – Out, Tag – Out Procedures----107
11.3. Lock – Out, Tag – Out Termination----108
11.4. Working Near Energized Facilities----109
12. Fall Protection – General Overview----110
12.1. Definitions----110
12.2. Fall Protection Systems Criteria and Practices----114
12.3. Personal Fall Arrest Systems----115

12.4. Positioning Device Systems----117
12.5. Safety Monitoring Systems----117
12.6. Warning Line Systems----117
12.7. Covers----118
12.8. Protection from Falling Objects----118
12.9. Canopies----118
12.10. Toe Boards----118
13. First Aid and CPR – General Overview----120
13.1. First Aid Familiarity----120
13.2. Bites and Stings----124
13.3. Cardiopulmonary Resuscitation (CPR)----127
14. Blood borne Pathogen Control – General Overview----129
14.1. Exposure Control Plan----129
14.2. Definitions----129
14.3. Responsibilities----130
14.4. Exposure Determination----131
14.5. Procedures----131
14.6. Post Exposure Procedures----133
14.7. Post Exposure Evaluations----134
14.8. Labels & Signs----135
14.9. Housekeeping----135
14.10. Training and Information----136
14.11. Documentation----136
15. Facility and General Yard Safety – General Overview----141
15.1. General Office Safe Work Practices----141
15.2. Workstations----142
15.3. Shop/Yard Safe Work Practices----143
15.4. Storage----144
15.5. Temporary Facilities----145
15.6. Classrooms/Conference Rooms----146
16. Environmental Considerations and Guidelines – General Overview----148
16.1. Immediate Action to be Taken if a Spill Should Occur----148
16.2. Florida State Environmental Law----148
16.3. Notification Requirements----148
16.4. Cleanup Requirements----149
16.5. Source Removal Report----154
16.6. Job Site Bulk Diesel Tanks----155
17. Hurricane Preparedness & Response – General Overview----156
17.1. Introduction----156
17.2. Your Safety----156
17.3. Think Before You Act----156
17.4. Stop – Think – Act model----157

17.5. How to Prepare for Major Emergencies----157
17.6. The Incident Command Procedure----158
17.7. First Line Supervisors----160
17.8. Fire or Explosion – 604 Hillbrath Drive, Lantana----161
17.9. Hurricane Preparedness – All Work Areas----162
17.10. Medical Emergencies----164
17.11. Utility Failures----165
17.12. Other Major Disasters or Explosions----165
17.13. Terrorist Acts----168
17.14. Emergency Basics: Fire----171
17.15. Emergency Basics: Bomb Threat----172
17.16. Chain of Command----175
17.17. Incident Command System----176
17.18. Communications----177
17.19. Outside Agency Contact List----178
17.20. Hurricane Preparedness----180
17.21. Business Continuity Planning----186
17.22. Field Operations Business Continuity Planning----188
17.23. Hospitals by County----196
18. Motor Vehicles – General Overview----208
18.1. Safe Driving Rules----208
18.2. Basic Safety Rules----209
18.3. Accident and Incident Reporting----210
18.4. CDL Drivers----210
19. Work Zone Traffic Control – General Overview----212
19.1. General Requirements----212
19.2. Traffic Control Plans----214
20. Working Under or Near Overhead Electric Lines----217
21. Appendices----219
21.1. Johnson – Davis Weekly Safety Meeting----219
21.2. Johnson – Davis Pre-job Safety Meeting Form----220
21.3. Site Specific Health & Safety Plan Template (SSHASP)----222
21.4. Johnson – Davis Activity Hazard Analysis (AHA)----236
21.5. Johnson – Davis Subcontractor Safety Pre-qualification----237
21.6. Johnson – Davis Site Safety Audit/Evaluation Form----245
21.7. Johnson – Davis Vehicle Visor Card----247
21.8. Johnson – Davis Equipment Safety Checklist----248
21.9. Johnson – Davis Shoring Tabulated Data (SAMPLE)----250
21.10. Johnson – Davis Confined Space Entry Permit----251
21.11. Johnson – Davis Confined Space Entry Procedure Flow Chart----252
21.12. Johnson – Davis Hazardous Spill Report----253
21.13. Johnson – Davis Alternate Procedure Entry Determination form----254

22. Silica Exposure Control Plan----------255
22.1. Appendix 14 – Johnson -Davis Silica ECP Site Template----------278
23. Revision History----------279

Introduction

"Management Commitment and Expectations"

When developing this manual there was only one clear intention, one purpose meant to guide all of our employees – "The most important part of everyday work at Johnson – Davis is ensuring that we all get to come back again tomorrow in the same or better condition than when we started today." To that end, this manual was created to guide us in the following ways;

1. Recognizing the hazards that we face in our work, some clear and some hidden,
2. Telling us what established rules govern how employers and employees lessen or eliminate these hazards, and
3. What we may need to do in order to come up with creative solutions to achieve sustainable compliance with local, state, and federal regulations

Regulations were developed with employee safety in mind; therefore if we achieve compliance, we achieve a safe work atmosphere for all employees. It is a condition of employment with our company that all employees learn, ask questions and apply the company safety program to all work activities.

Management's commitment is that every reasonable effort will be made to provide, maintain and sustain a safe and healthy workplace for all employees of Johnson – Davis Inc. We will provide advanced training to applicable job classifications. We will also insist on safe methods and work practices from all employees, sub-contractors and delivery vendors at all times. Where we encounter a situation that challenges our understanding or compliance with rules to live by, any and all feasible solutions will be sought to ensure the safety of our employees, sub-contractors and the general public.

Additionally we will;

1. Adhere to all federal, state and local laws and regulations in regard to safety and health in the construction industry
2. Conduct all operations with good sense and safe work practices commensurate with varied conditions, locations and circumstances of our job sites
3. Exercise good judgment in the application of our program guidelines
4. Protect members of the public to the best of our ability

Other parties activities on multiple trade construction sites can and do often pose a safety risk to our employees. We will make every effort to ensure that our presence or the presence of other contractors and their work do not pose conflicting safety risks to one another. It is the duty of any employee to report any concern of this nature to their immediate Supervisor so that action can be taken to correct the problem before an injury occurs. All supervisory personnel have the full support of management to ensure adherence to our safety program guidelines.

Work Safely - Live Safely!

OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

Year 2017

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	5	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0	196
(K)	(L)

Injury and Illness Types

Total number of...	(M)		(M)
(1) Injury	5	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: Johnson-Davis, Inc.

Street: 604 Hillbrath Drive

City: Lantana State: Florida Zip: 33462

Industry description (e.g., Manufacture of motor truck trailers)
WATER, SEWER & COMMUNICATIONS & POWER LINE CONSTRUCTION

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1623

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees: 158

Total hours worked by all employees last year: 359,542

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

VP
Title

(561) 588 - 1170
Phone

01/31/18
Date

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 2018

U.S. Department of Labor
Occupational Safety and Health Administration
Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	7	6	2
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
178	490
(K)	(L)

Injury and Illness Types

Total number of...	(M)		
(1) Injury	12	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	3

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave. NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: Johnson-Davis, Inc.

Street: 604 Hillbrath Drive

City: Lantana State: Florida Zip: 33462

Industry description (e.g., Manufacture of motor truck trailers)
WATER, SEWER & COMMUNICATIONS & POWER LINE CONSTRUCTION

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1623

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees: 167

Total hours worked by all employees last year: 397,948

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

Pres
Title

(561) 588 - 1170
Phone

1/31/19
Date

OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

Year 2019

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the log. If you had no cases write "0."

Employees former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR 1904.35, in OSHA's Recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	2	4	3
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
4	137
(K)	(L)

Injury and Illness Types

Total number of...	(M)		(M)
(1) Injury	7	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	0	(6) All Other Illnesses	2

Establishment information

Your establishment name: Johnson-Davis, Inc.

Street: 604 Hillbrath Drive

City: Lantana State: Florida Zip: 33462

Industry description (e.g., Manufacture of motor truck trailers)
WATER, SEWER & COMMUNICATIONS & POWER LINE CONSTRUCTION

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1623

OR North American Industrial Classification (NAICS), if known (e.g., 336212)

Employment information

Annual average number of employees: 172

Total hours worked by all employees last year: 388,851

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

President & CEO
Title

(561) 588 - 1170
Phone

1/21/20
Date

Post this Summary page from February 1 to April 30 of the year following the year covered by the form

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instruction, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Ave, NW, Washington, DC 20210. Do not send the completed forms to this office.

JOHNSON INSURANCE®

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

January 17, 2020

Johnson-Davis, Inc.
604 Hillbrath Dr.
Lantana, FL 33462

RE: Experience Modification Factor

To Whom it May Concern:

The current and historical EMR is as follows:

2020-21	.85
2019-20	.77
2018-19	.88
2017-18	.93
2016-17	.98

Please let me know if you have any questions.

Sincerely,

Johnson Financial Group

Sharon Majeski

Sharon Majeski
Account Manager

Sworn Statement

PURSUANT TO SECTION 287.133(3)(a),FLORIDA STATUES,
ON PUBLIC ENTITY CRIMES

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

1. This sworn statement is submitted to Town of Jupiter
[print name of the public entity]

by Wm. Clark C. Cryer, Estimating Manager
[print individual's name and title]

for Johnson-Davis Incorporated
[print name of entity submitting sworn statement]

whose business address is 604 Hillbrath Drive, Lantana, FL 33462

and (if applicable) its Federal Employer Identification Number (FEIN) is: 59-1753888
(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn Statement: _____.)

2. 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.

3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), **Florida Statutes**, means a finding or 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, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. 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.

5. 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.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **[indicate which statement applies.]**

   X Neither the entity submitting this sworn statement, nor any 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 public interest to place the entity submitting this sworn statement on the convicted vendor list.
   [attach a copy of the final order]

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

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] Wm. Clark C. Cryer
Estimating Manager

Sworn to and subscribed before me this 30 day of June, 2020

Personally known William Clark C Cryer

OR Produced identification _____ Notary Public – State of Florida

My commission expires November 14, 2021

Dawn M Celona / Dawn M Celona
(Printed typed or stamped commissioned name notary public)

DAWN M. CELONA
Commission # GG 155920
Expires November 14, 2021
Bonded Thru Troy Fain Insurance 800-385-7019

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
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Lantana, FL 33462
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Trench Safety

Bidder acknowledges that included in the various items of the proposal and in the Total Bid Price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Fla.) effective October 1, 1990. The bidder further identifies the costs to be summarized below.

TRENCH SAFETY MEASURE EXTENDED (DESCRIPTION)	UNITS OF MEASURE (LF, SY)	UNIT (QUANTITY)	UNIT COST	EXTENDED COST
A. Trench Excavation	LF			
B. Shoring	SF			
C. Trench Box				
D. Other: LSV Slope/Shoring			$500-	$500-

Failure to complete the above may result in a non-responsive bid.

Work will vary by separate Authorization, therefore measures will also vary. WCC

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PROCEED TO NEXT PAGE

JOHNSON-DAVIS INC.

"Construct with Confidence"

EXECUTIVE SUMMARY

Johnson-Davis Inc. is a full-service underground utility contractor specializing in projects such as water, sewer, and storm drainage systems, as well as highway and road construction usually associated with the utility construction. Our work expertise also includes installation of steel sheeting and dewatering systems.

There is no other company in the south and central Florida region that can boast our experience and proficiency in this area. We are able to maintain long-term relationships with prime contractors, governmental agencies, consulting engineers, customers, and suppliers because we are dependable and strive to deliver superior customer service. Johnson-Davis believes that maintaining our credibility and integrity within the industry is our main concern.

Johnson-Davis was founded in 1977 when Herb Johnson envisioned the need in Florida for a reputable specialty contractor. Herb and his sons, Scott and Chris, worked only in Palm Beach County, were based in Herb's garage, and had only three leased pieces of heavy equipment to their name. Based in Palm Beach County for more than 40 years, Johnson-Davis has worked continuously and successfully with County Governments and Utility Authorities. More than 40 years later, the Johnson-Davis name is now synonymous with quality work as well as tremendous experience, resources, and knowledge.

The company has since transitioned to Scott and Chris Johnson. The corporate headquarters is in Lantana and covers more than four acres of land, and we have a small office in Fort Pierce. Our project teams are located in these two offices. Johnson-Davis has more than 15 crews and owns the equipment that supports these crews. Johnson-Davis is privately-held, owned by Scott Johnson, Chris Johnson, and Jeanne (Johnson) Cummings.

Scott Johnson, President, and Bob Hopler, Vice President, both earned their Bachelor of Science degrees in Civil Engineering from Bucknell University in 1976. As engineers, they enjoy projects that are technically challenging. They are both involved in projects at the executive level.

Our Construction Manager, Robert Ueltschi, has 40 years of construction experience. He earned his Bachelor of Science in Civil Engineering Technology from Western Kentucky University. His extensive experience and knowledge support the Superintendents and Project Managers, and ensures crews are optimally scheduled and properly performing their duties, all while ensuring the highest levels of quality, safety, and customer satisfaction.

JOHNSON-DAVIS INC.

"Construct with Confidence"

Our Superintendents oversee multiple crews and have been involved in utility construction for a combined total of 152 years. Having worked with the local utility authorities for many years, they are aware of the daily challenges faced by the crews. Senior Superintendent Leonard Dennis and Superintendents Robert Earnest, Richard Heller III, Thomas Linsley, Edric Martin, and J.R. Martin ensure their crews have the resources necessary to maintain their schedules. They are also tasked with ensuring the quality of the work meets or exceeds expectations.

Our Project Managers hold an impressive 133 years of experience amongst them. They act as the main interface between the customer and Johnson-Davis. Chuck Cameron, Matt Crist, Rich Heller Jr, Doug Ipolito, and Edwin Jacobs have the primary responsibility to ensure projects are completed on time and within the budget.

Andy Thomson, Safety Director, has 34 years of safety and operations and previously served as a Health and Safety Director and Operations Manager. He holds many certifications including OSHA 500 authorized and 10 & 30 hours construction safety trainer under OSHA. His knowledge and experience help Johnson-Davis Inc. maintain a safety culture that makes safety the responsibility of every employee.

Ilene Passler, Human Resources Director, has worked in construction for 21 years, and the majority of her experience is with federal and municipal contractors. She holds her Master of Business Administration from Wake Forest University and SHRM-Senior Certified Professional and Senior Professional in Human Resources certifications.

Our Estimating Team's focus on customer service and detail helps limit the need for change orders by addressing potential issues during the bidding process. Secretary/Treasurer Chris Johnson, Jim Amsler, Clark Cryer, and Walter Pfaffenberger have over 81 years of experience, and Scott Johnson is also actively involved in the Estimating process.

We enjoy an excellent relationship with our bonding company, Liberty Mutual Insurance Co., with a single project capacity of $35,000,000 and an aggregate capacity in excess of $80,000,000. Our financial strength, technical expertise, and history of success in working with the FDOT have earned us a capacity rating in excess of $80,000,000 for underground utility work. We have also been listed in Engineer New Record's Top 600 Specialty Contractors nationwide for many years.

It is clear that Johnson-Davis has both the experience and the key personnel necessary to successfully perform underground utility projects of all sizes and difficulty.

Bid Bond

Bidder	**Surety**
Name: Johnson-Davis Incorporated	Name: Liberty Mutual Insurance Company
Phone: 561-588-1170	Phone: 610-832-8240
Address *(principal place of business)*: 604 Hillbrath Drive Lantana, FL 33462	Address *(principal place of business)*: 175 Berkeley Street Boston, MA 02116
Owner	**Bid**
Name: Town of Jupiter	Project *(name and location)*: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029) 17403 Central Blvd., Jupiter, Florida
Phone: 561-746-5134	
Address *(principal place of business)*: Town Hall, 210 Military Trail, Jupiter, FL 33458 / Water Treatment Plant, 17403 Central Blvd., Jupiter, FL 33458	Bid Due Date: June 30, 2020 at 2:00pm

Bond Number: N/A

Penal Sum: 5% Initial Term Funding

Date of Bond: June 23, 2020

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative. Surety affirms it is authorized to do business in the State of Florida, and the Town of Jupiter, and as having an Agent resident therein.

Bidder	Surety
Johnson-Davis Incorporated *(Full formal name of Bidder)*	Liberty Mutual Insurance Company *(Full formal name of Surety) (corporate seal)*
By: *(Signature)*	By: Elizabeth K. Sterling *(Signature) (Attach Power of Attorney)*
Name: Wm. Clark C. Cryer *(Printed or typed)*	Name: Elizabeth K. Sterling *(Printed or typed)*
Title: Estimating Manager	Title: Attorney-in-Fact
Attest: *(Signature)*	Attest: Megan Douaire *(Signature)*
Name: Christopher Johnson *(Printed or typed)*	Name: Megan Douaire *(Printed or typed)*
Title: Secretary/Treasurer	Title: Witness

Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds, Power of Attorney(s), and Certificate(s) of Insurance required by the Bidding Documents.
3. This obligation will be null and void if:
   3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds, Power of Attorney(s), and Certificate(s) of Insurance required by the Bidding Documents, or
   3.2. All Bids are rejected by Owner, or
   3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

JOHNSON-DAVIS, INC
604 Hillbrath Drive
Lantana, FL 33462
Phone (561)588-1170
Fax (561)585-5252

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8195687- 016072

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Maria Signorile; Benjamin A. Stahl; Elizabeth K. Sterling; Wesley P. Williams

all of the city of Atlanta state of GA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of September, 2018.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 7th day of September, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 23 day of June, 2020.

By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE UNDERGROUND UTILITY & EXCAVATION CO HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

JOHNSON, SCOTT JAMES

JOHNSON - DAVIS INCORPORATED
604 HILLBRATH DRIVE
LANTANA FL 33462

LICENSE NUMBER: CUC043087

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE UNDERGROUND UTILITY & EXCAVATION CO HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CRYER, WILLIAM CLARK CLIFFORD

JOHNSON - DAVIS INCORPORATED
604 HILLBRATH DRIVE
LANTANA FL 33462

LICENSE NUMBER: CUC1225299

EXPIRATION DATE: AUGUST 31, 2020

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Ron DeSantis, Governor

Halsey Beshears, Secretary

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE PLUMBING CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

CRYER, WILLIAM CLARK CLIFFORD

JOHNSON - DAVIS INCORPORATED
604 HILLBRATH DRIVE
LANTANA FL 33462

LICENSE NUMBER: CFC1430348

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

ANNE M. GANNON
CONSTITUTIONAL TAX COLLECTOR
Serving Palm Beach County
Serving *you.*

P.O. Box 3353, West Palm Beach, FL 33402-3353
www.pbctax.com Tel: (561) 355-2264

LOCATED AT
604 HILLBRATH DRIVE
LANTANA, FL 33462-1656

TYPE OF BUSINESS	OWNER	CERTIFICATION #	RECEIPT #/DATE PAID	AMT PAID	BILL #
23-0097 UNDERGROUND UTILITY & EXCAVATION	JOHNSON SCOTT J	CUC043087	U19.576611 - 07/11/19	$99.00	B40136088

This document is valid only when receipted by the Tax Collector's Office.

B3 - 225

JOHNSON DAVIS INC
JOHNSON DAVIS INC
604 HILLBRATH DR
LANTANA, FL 33462-1656

STATE OF FLORIDA
PALM BEACH COUNTY
2019/2020 LOCAL BUSINESS TAX RECEIPT

LBTR Number: 199306319
EXPIRES: SEPTEMBER 30, 2020

This receipt grants the privilege of engaging in or managing any business profession or occupation within its jurisdiction and MUST be conspicuously displayed at the place of business and in such a manner as to be open to the view of the public.

ANNE M. GANNON
CONSTITUTIONAL TAX COLLECTOR
Serving Palm Beach County
Serving *you.*

P.O. Box 3353, West Palm Beach, FL 33402-3353
www.pbctax.com Tel: (561) 355-2264

LOCATED AT
604 HILLBRATH DRIVE
LANTANA, FL 33462-1656

TYPE OF BUSINESS	OWNER	CERTIFICATION #	RECEIPT #/DATE PAID	AMT PAID	BILL #
23-0137 CW UNDERGROUND UTILITY &	JOHNSON SCOTT J	CUC043087	U19.576611 - 07/11/19	$185.85	B40136089

This document is valid only when receipted by the Tax Collector's Office.

B2 - 225

JOHNSON DAVIS INC
JOHNSON DAVIS INC
604 HILLBRATH DR
LANTANA, FL 33462-1656

STATE OF FLORIDA
PALM BEACH COUNTY
2019/2020 LOCAL BUSINESS TAX RECEIPT

LBTR Number: 199306318
EXPIRES: SEPTEMBER 30, 2020

This receipt grants the privilege of engaging in or managing any business profession or occupation within its jurisdiction and MUST be conspicuously displayed at the place of business and in such a manner as to be open to the view of the public.

Notice of Intent to Award

DATE: July 6, 2020

TO: Johnson-Davis, Inc.
604 Hillbrath Drive
Lantana, FL 33462

ATT: Mr. Wm. Clark C. Cryer, Estimating Manager

Project: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

Gentlemen:

This is to advise that on July 21, 2020, a recommendation for award of the above referenced Contract will be made to the Jupiter Town Council as a result of your Unit Price bid submitted to the Town of Jupiter (Owner) on June 30, 2020.

Two (2) sets of the Project Manual for this project are attached. Each set contains an unexecuted agreement. Please sign both sets of the Agreement and include the following additional documentation necessary for execution of the Agreement/Contract. DO NOT DATE ANY OF THE DOCUMENTS. They will be dated upon execution by the Town.

- Two original signed and notarized Payment Bonds (on Bond form included with each project manual).
- Two original signed and notarized Performance Bonds (on Bond form included with each project manual).
- Four original Power of Attorneys; one each to accompany each Payment and Performance bond.
- Two current Certificates of Insurance naming the Town of Jupiter as an additional insured per the requirements of the contract.

Please return both signed Project Manuals with supporting documentation to our office for final signatures.

Your attention is invited to the provision whereby your proposal guarantee may be forfeited in the event the Agreement with satisfactory bonds, insurance, and power of attorneys is not executed and delivered to the Owner within fifteen (15) consecutive calendar days from July 9, 2020.

One fully executed original and one copy of the executed Agreement/Contract will be provided to you on or before the Pre-Construction meeting.

Sincerely,

Rebecca Wilder, P.E.
Town of Jupiter
Senior Engineer

Notice of Award

DATE: July 22, 2020

TO: Johnson-Davis, Inc.
604 Hillbrath Drive
Lantana, FL 33462

ATT: Mr. Wm. Clark C. Cryer, Estimating Manager

Project: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

Gentlemen:

This is to advise you that on July 21, 2020, the Jupiter Town Council approved award of a construction contract to your firm, for the above referenced project as a result of your Unit Price bid on June 30, 2020.

One fully executed original and one copy of the executed Agreement/Contract will be provided to you on or before the date of the Pre-Construction meeting. A Notice to Proceed will be issued for commencement of the Contract Time.

We look forward to working with you on this project.

Sincerely,

Rebecca Wilder, P.E.
Town of Jupiter
Senior Engineer

Agreement (Contract) Between Owner and Contractor

This Agreement (Contract) made this 13 (date) day of August (month), 2020 (year) by and between the Town of Jupiter, a public agency of the State of Florida hereinafter designated as the "the TOWN" and "OWNER", and Johnson-Davis, Inc., 604 Hillbrath Drive, Lantana, FL 33462, a Corporation, 59-1753888 (FEID number) hereinafter designated as "the CONTRACTOR", in consideration of the mutual covenants hereinafter set forth agree as follows:

ARTICLE 1. WORK.

1.1 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: This scope includes subaqueous water main crossings in two locations as follows:

Provide stormwater utility infrastructure repairs, replacements and/or installations on an as needed basis utilizing one or a combination of a number of unit price bid items. These items may include, but are not limited to: bypass pumping; realigning or replacing inlet/manhole castings; sealing and/or grouting storm water pipe joints; installing new manholes/conflict boxes/catch basins; pipe to structure connection repairs; storm water pipe point repairs; slip lining; cured in place lining; and restoring miscellaneous surface improvements such as asphalt roadway replacement, pavement overlay, concrete sidewalk replacement, concrete curb and gutter replacement, sod replacement, fence replacement and other improvements as described by the Project Documents.

1.2 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows: **STORMWATER UTILITY INFRASTRUCTURE REPAIRS UNIT PRICE CONTRACT (S2029) FOR THE TOWN OF JUPITER UTILITIES, JUPITER, FLORIDA**

ARTICLE 2. ENGINEER.

2.1 The Project has been designed by the following: Town of Jupiter Utilities Department, 210 Military Trail, Jupiter, FL 33458.

2.2 The Town of Jupiter will administer the contract during the construction phase.

ARTICLE 3. CONTRACT TIME.

3.1 The Work will have a substantial completion date and a final completion date after the date when the Contract Time commences to run as provided in Article 4 of the General Conditions, and as outlined below. The work will be completed and ready for substantial and final payments in accordance with Article 15 of the General Conditions and as outlined below:

3.1(a)	Substantial Completion:	730 days from Notice to Proceed
3.1(b)	Final Completion:	730 days from Notice to Proceed

3.2 Unless extended or terminate, the period of performance of this CONTRACT shall commence upon the effective date of execution by the OWNER and continue for a period of 2 years or seven hundred and thirty calendar days (730 days). Written Notice to Proceed and Work Order duration will be mutually agreed upon by both the CONTRACTOR and OWNER and provided in Work Orders outlining work. The CONTRACTOR shall not proceed with work under this CONTRACT until a Work Order with written Notice to Proceed is received from the OWNER.

3.3 The initial term of the Contract will be two years (730 calendar days) from the date of Notice to Proceed. Owner may at Owner's sole discretion renew this Contract for one (1) additional two (2) year term and one (1) additional (1) year term for a total Contract period of five (5) years, in accordance with the Town of Jupiter's Purchasing Policy and terms of the original Contract. Renewals will be in writing by change order to the Contract and are subject to the same terms, conditions, and unit pricing set forth in the initial Contract and any written amendments/change orders signed by both parties (Owner and Contractor). No compensation shall be made for costs associated with renewal of the Contract. Renewals are contingent upon satisfactory performance evaluations by the Owner and subject to the availability of fiscal year funding approved by the Jupiter Town Council. Contractor may elect not to extend the Contract with 90 days written notice to Owner. Owner is not obligated to extend the Contract. Regardless of anything to the contrary, this Contract may be terminated by the Owner at any time and for any reason. Further, the Contractor agrees that it will not be entitled to any claims and/or damages resulting from such termination, including, but not limited to, lost profits, direct or indirect damages, and consequential special or punitive damages.

3.4 The parties agree that the TIME IS OF THE ESSENCE, in the performance of each and every obligation under this CONTRACT. The CONTRACT may be changed only by a change order to the CONTRACT Work Order amendments to individual Work Orders must be completed in writing and signed and dated by Contractor and Owner.

3.5 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 11 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration preceding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (But not as a penalty) CONTRACTOR shall pay OWNER Seven Hundred and Fifty 00/100 dollars ($750.00) for each day that expires after the time specified in Paragraph 3.1 for substantial completion until the Work is substantially complete, and Five Hundred 00/100 dollars ($500.00) for each day that expires after the time specified in Paragraph 3.1 from the date of final completion until the work has reached final completion. Final completion includes demobilization from the site. Owner may withhold payment to compensate for liquidated damages either by increasing the amount of money being held in retainage or deduct the amount due in Liquidated Damages from the final payment application. Liquidated damages under this Contract apply to each the substantial completion date and the final completion date.

3.6 This provision of Liquidated Damages for delay shall in no manner affect the TOWN's right to terminate the CONTRACT. The OWNER's exercise of the right to terminate shall not release the CONTRACTOR from his obligation to pay Liquidated Damages. It is further agreed that the OWNER may deduct from the balance of the CONTRACT sum held by the OWNER the Liquidated Damages stipulated herein or such portions as said balance will cover.

ARTICLE 4. CONTRACT PRICE.

4.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds according to the Contract Unit Prices.

4.2 No guarantee is expressed or implied as to the total quantity of commodities/services to be purchased under any open end Contract. Estimated quantities will be used for Bid comparison purposes only. The Owner reserves the right to issue Work Orders as and when required for proposed work for any or all bid items or any combination thereof. Work under this Contract is subject to fiscal appropriation by the Jupiter Town Council in either or both the Town's Community Investment Program (CIP) and fiscal year operating

budgets. Estimated funding budgets anticipated being available for the original two year contract term and subsequent two year and one year renewal terms are provided in the table below.

4.3 The Owner reserves the right to purchase commodities/services specified herein through contracts established by other governmental agencies or through separate procurement actions due to unique or special needs. If an urgent delivery is required within a short period than the delivery time specified in the Contract, and if the seller is unable to comply therewith, the Owner reserves the right to obtain such delivery from others without penalty or prejudice to the Owner or to the Bidder.

Anticipated Estimated Annual Funding
Town of Jupiter Utilities
Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

Year	Project Description	Estimated Value
2020/2021	Stormwater Rehabilitation and Repair (CIP)	$300,000
	Stormwater Repair and Maintenance (Operating, R&M)	$100,000
	Unanticipated Emergency Repairs	$100,000
2021/2022	Miscellaneous Stormwater Repairs	$309,000
	Stormwater Repair and Maintenance (Operating, R&M)	$103,000
	Unanticipated Emergency Repairs	$103,000
	Estimated Initial 2 Year Contract Term Total	**$1,015,000**
2022/2023	Stormwater Rehabilitation and Repair (CIP)	$318,000
	Stormwater Repair and Maintenance (Operating, R&M)	$106,000
	Unanticipated Emergency Repairs	$106,000
2023/2024	Miscellaneous Stormwater Repairs	$328,000
	Stormwater Repair and Maintenance (Operating, R&M)	$109,000
	Unanticipated Emergency Repairs	$109,000
	Estimated 2 Year Contract Term Extension Total	**$1,076,000**
2024/2025	Stormwater Rehabilitation and Repair (CIP)	$338,000
	Stormwater Repair and Maintenance (Operating, R&M)	$113,000
	Unanticipated Emergency Repairs	$113,000
	Estimated 1 Year Contract Term Extension Total	**$564,000**
	Estimated 5 Year Total	**$2,655,000**

ARTICLE 5. PAYMENT PROCEDURES.

5.1 Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for payment will be processed by OWNER as provided in the General Conditions.

5.2 The undersigned, acknowledges that payments made by the Town of Jupiter will be made via electronic funds transfer (EFT) and vendor will provide the Town of Jupiter with the information required to make EFT payments.

5.3 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment within 30 days of receipt of each monthly approved application for payment during construction as provided below. All progress payments will be on the basis of the

progress of the Work measured by the agreed upon schedule of values provided for in Articles 2 and 15 of the General Conditions.

5.4 Prior to 50% Completion of the work, progress payments will be made in an amount equal to: 90% of the Work completed, and 90% of materials and equipment not incorporated in the Work but delivered and suitably stored, less in each case the aggregate of payments previously made.

5.5 Upon 50% completion of work, OWNER, will pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the work completed. Owner may elect to withhold a greater percentage if work is determined, by Owner, to be insufficient or incomplete until Final Completion.

5.6 Upon achievement of Substantial Completion CONTRACTOR may request, in writing, that total payments be increased to 98% of the contract price. OWNER may or may not approve this request at its own discretion.

5.7 Final Payment. Upon final completion and acceptance of the Work in accordance with Article 15 of the General Conditions, OWNER shall pay the remainder of the Contract Price as provided in said Article 15 of the General Conditions unless liquidated damages are due.

ARTICLE 6. INTEREST. Not applicable.

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS. In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

7.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

7.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.

7.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in Article 7.2 (above) as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

7.5 CONTRACTOR has given OWNER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof is acceptable to CONTRACTOR.

ARTICLE 8. CONTRACT DOCUMENTS.

8.1 The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consists of the following:

8.1(a) Index

8.1(b) Table of Contents-Specifications & Appendices
8.1(c) Advertisement for Bids
8.1(d) Instructions to Bidders
8.1(e) Proposal (Including List of Subcontractors and Qualification Requirements)
8.1(f) Contractor Safety Qualifications/Requirements (Including Contractor Safety Qualification Form)
8.1(g) Sworn Statement
8.1(h) Trench Safety
8.1(i) Bid Bond
8.1(j) Notice of Intent to Award
8.1(k) Notice of Award
8.1(l) Agreement (Contract) between OWNER and CONTRACTOR
8.1(m) Payment Bond
8.1(n) Performance Bond
8.1(o) Opinion of Town Attorney
8.1(p) Notice to Proceed
8.1(q) General Conditions (EJCDC Standard General Conditions (2018 Edition), inclusive)
8.1(r) Supplementary Conditions
8.1(s) Any Modifications, including Change Orders, duly delivered after execution of Agreement.
8.1(t) Technical Specifications including Appendices bearing the title: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)

8.2 There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be altered, amended or repealed by a modification described in Section 1 of the General Conditions of the Contract.

ARTICLE 9. MISCELLANEOUS.

9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

9.4 The Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of this Contract and in furtherance thereof may demand and obtain records and testimony from the Contractor and its subcontractors and lower tier subcontractors. The Contractor understands and agrees that in addition to other remedies and consequences provided by law, the failure of the Contractor or its subcontractors or lower tier subcontractors to fully cooperate with the Office of Inspector General of Palm Beach County when requested may be deemed by the municipality to be a material breach of this contract justifying its termination. The Office of Inspector General in Palm Beach County is established by Palm Beach County Code, Section 2-421 - 2-440. Failure to cooperate with the Inspector General or interfering with or impeding any investigation shall be in violation of Palm Beach

County Code, Section 2-421 – 2-440, and be punished pursuant to Section 125.69, Florida Statutes, in the same manner as a second degree misdemeanor.

9.5 This Agreement is subject to and governed by the laws of the State of Florida, including without limitation Chapter 119, Florida Statutes, which generally makes public all records or other writings made by or received by the parties. The Contractor acknowledges its legal obligation to comply with § 119.0701, Florida Statutes.

9.5(a) A request to inspect or copy public records relating to a public agency's contract for services must be made directly to the public agency. If the public agency does not possess the requested records, the public agency shall immediately notify the contractor of the request, and the contractor must provide the records to the public agency or allow the records to be inspected or copied within a reasonable time.

9.5(b) If a contractor does not comply with the public agency's request for records, the public agency shallenforce the contract provisions in accordance with the contract.

9.5(c) A contractor who fails to provide the public records to the public agency within a reasonable time may be subject to penalties under s. 119.10.

9.5(d) **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, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 561-741-2270, BRITTANYG@JUPITER.FL.US, OR 210 MILITARY TRAIL, JUPITER, FL 33458.**

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Proceed to next page.

IN WITNESS WHEREOF, the parties hereto have signed two (2) copies of this Agreement. At least one counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR.

OWNER

Town of Jupiter
210 Military Trail
Jupiter, FL 33458

By: _____

Todd R. Wodraska, Mayor

(TOWN SEAL)

ATTEST

_____

Sally Boylan, Town Clerk

CONTRACTOR

Johnson-Davis, Inc.
604 Hillbrath Drive
Lantana, FL 33462

_____

Wm. Clark C. Cryer, Estimating Manager

(CORPORATE SEAL)

ATTEST

_____

PRINT NAME AND POSITION

CHRIS JOHNSON, SECY/TREAS.

Payment Bond

Contractor	Surety
Name: Johnson-Davis, Inc. Phone: 561-588-1170 Address *(principal place of business)*: 604 Hillbrath Drive Lantana, FL 33462	LIBERTY MUTUAL INSURANCE COMPANY Address *(principal place of business)*: 175 BERKELEY STREET BOSTON, MA 02116
Owner	**Contract**
Name: Town of Jupiter Phone: 561-746-5134 Mailing address *(principal place of business)*: Town Hall, 210 Military Trail, Jupiter, FL 33458 Water Treatment Plant, 17403 Central Blvd., Jupiter, FL 33458	Description *(name and location)*: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029), Jupiter, Florida Contract Price: $1,015,000.00 Effective Date of Contract: August 13, 2020

Bond Number: 016228422

Bond Amount: One Million Fifteen Thousand & 00/100 ($1,015,000.00)

Date of Bond: August 13, 2020

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☒ See Paragraph 19

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

Contractor as Principal	Surety
JOHNSON-DAVIS, INC. *(Full formal name of Contractor)*	LIBERTY MUTUAL INSURANCE COMPANY *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature)(Attach Power of Attorney)*
Name: Scott Johnson *(Printed or typed)*	Name: ELIZABETH K. STERLING *(Printed or typed)*
Title: President	Title: ATTORNEY-IN-FACT
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: Chris Johnson *(Printed or typed)*	Name: CHRISTINE McCARTHY *(Printed or typed)*
Title: Secretary / Treasurer	Title: SURETY WITNESS

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond will arise after the following:

    5.1. Claimants who do not have a direct contract with the Contractor

        5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

        5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).

    5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

    7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

    7.2. Pay or arrange for payment of any undisputed amounts.

    7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

15. This bond is issued in compliance with Section 255.05, Florida Statutes (1987), as may be amended. A claimant, except a laborer, who is not in privity with the contractor and who has not received payment for his labor, materials, or supplies shall, within 45 days after beginning to furnish labor, materials, or supplies for the prosecution of the work, furnish the contractor with a notice that he intends to look to the bond for protection. A claimant who is not in privity with the contractor and who has not received payment for his labor, materials, or supplies shall, within 90 days after performance of the labor or after complete delivery of the materials or supplies, deliver to the contractor and to the surety written notice of the performance of the labor or delivery of the materials or supplies and of the nonpayment. No action for the labor, materials, or supplies may be instituted against the contractor or the surety unless both notices have been given. No action shall be instituted against the contractor or the surety on the bond after 1 year from the performance of the labor or completion of delivery of the materials or supplies.

16. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

17. Definitions

    17.1. *Claim*—A written statement by the Claimant including at a minimum:

        17.1.1. The name of the Claimant;

        17.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

17.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

17.1.4. A brief description of the labor, materials, or equipment furnished;

17.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

17.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

17.1.7. The total amount of previous payments received by the Claimant; and

17.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

17.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

17.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

17.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

17.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

18. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

19. Modifications to this Bond are as follows: Request for assigned bond number and for phone numbers of each party listed on the bond (Contractor, Surety, and Owner). Addition of Paragraph 15 and renumbering of the paragraphs thereafter.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8195687- 016072**

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Maria Signorile; Benjamin A. Stahl; Elizabeth K. Sterling; Wesley P. Williams

all of the city of Atlanta state of GA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of September, 2018.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 7th day of September, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13 day of August 2020.

By: _____
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

Performance Bond

Contractor	Surety
Name: Johnson-Davis, Inc. Phone: 561-588-1170 Address *(principal place of business)*: 604 Hillbrath Drive Lantana, FL 33462	Name: LIBERTY MUTUAL INSURANCE COMPANY Phone: 610-832-8240
Owner	**Contract**
Name: Town of Jupiter Phone: 561-746-5134 Mailing address *(principal place of business)*: Town Hall 210 Military Trail Jupiter, FL 33458 Water Treatment Plant 17403 Central Blvd. Jupiter, FL 33458	Description *(name and location)*: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029), Jupiter, Florida Contract Price: $1,015,000.00 Effective Date of Contract: August 13, 2020

Bond Number 016228422

Bond Amount: One Million Fifteen Thousand & 00/100 ($1,015,000.00)

Date of Bond: August 13, 2020

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☒ See Paragraph 17

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

Contractor as Principal	Surety
JOHNSON-DAVIS, INC. *(Full formal name of Contractor)*	LIBERTY MUTUAL INSURANCE COMPANY *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: Elizabeth K. Sterling *(Signature)(Attach Power of Attorney)*
Name: SCOTT JOHNSON *(Printed or typed)*	Name: ELIZABETH K. STERLING *(Printed or typed)*
Title: PRESIDENT	Title: ATTORNEY-IN-FACT
Attest: _____ *(Signature)*	Attest: Christine McCarthy *(Signature)*
Name: CHRIS JOHNSON *(Printed or typed)*	Name: CHRISTINE McCARTHY *(Printed or typed)*
Title: SECRETARY / TREASURER	Title: WITNESS TO SURETY

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

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

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:

   3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;

   3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

   3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

   5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

   5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

   5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

   5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

      5.4.1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

      5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner

to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

   7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

   7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

   7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. This bond is issued in compliance with Section 255.05, Florida Statutes (1987), as may be amended, which statute supersedes this bond to the extent of any conflict, and to the extent the Public Construction Bond coverage provided in such statute may be broader than this bond. A claimant, except a laborer, who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 45 days after beginning to furnish labor, materials, or supplies for the prosecution of the Work, furnish the Contractor with a notice that he intends to look to the bond for protection. A claimant who is not in privity with the Contractor and who has not received payment for his labor, materials, or supplies shall, within 90 days after performance of the labor or after complete delivery of the materials or supplies, deliver to the Contractor and to the surety written notice of the performance of the labor or delivery of the materials or

supplies and of the nonpayment. No action for the labor, materials, or supplies may be instituted against the Contractor or the surety unless both notices have been given. No action shall be instituted against the Contractor or the surety on the bond after 1 year from the performance of the labor or completion of delivery of the materials or supplies.

15. Definitions

    15.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

    15.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

    15.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

    15.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

    15.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

16. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

17. Modifications to this Bond are as follows: Request for assigned bond number and for phone numbers of each party listed on the bond (Contractor, Surety, and Owner). Addition of Paragraph 14 and renumbering of the paragraphs thereafter.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

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The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8195687- 016072**

POWER OF ATTORNEY

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all of the city of Atlanta state of GA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of September, 2018.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 7th day of September, 2018 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

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I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13 day of August, 2020.

By: _____
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

Liberty Mutual

July 13, 2020

Town of Jupiter
210 Military Trail
Jupiter, FL 33458

Re: Bond #016228422– Johnson-Davis, Inc.

As the Surety Company for Johnson-Davis, Inc., permission is hereby granted for Town of Jupiter to add the contract date to the referenced Bond (s) & Powers of Attorney after executing the contract when the contract date is known.

If you have any questions, please contact me at (404) 261-3400

Sincerely,

Liberty Mutual Insurance Company

Elizabeth K. Sterling, Attorney-in-Fact

Liberty Mutual SURETY

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

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The Ohio Casualty Insurance Company
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LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS
THE OHIO CASUALTY INSURANCE COMPANY INCORPORATED 1919 NEW HAMPSHIRE
WEST AMERICAN INSURANCE COMPANY INCORPORATED 1991 INDIANA

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
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David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

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TERESA PASTELLA COMMONWEALTH OF PENNSYLVANIA NOTARY PUBLIC

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
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My Commission Expires March 28, 2021
Member, Pennsylvania Association of Notaries

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I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 13 day of July, 2020.

LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS
THE OHIO CASUALTY INSURANCE COMPANY INCORPORATED 1919 NEW HAMPSHIRE
WEST AMERICAN INSURANCE COMPANY INCORPORATED 1991 INDIANA

By: _____
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

Opinion of Town Attorney

This is to certify that I have examined the attached Contract Documents, that after such examination, I am of the opinion that such documents conform to the laws of the State of Florida, that the execution of the Contract and the Contract Bonds is in due and proper form, that the representative of the respective Contracting Parties have full power and authority to execute such Contract and Contract Bond on behalf of the respective Contracting Parties and that the foregoing agreements constitute valid and binding obligations on such parties.

Thomas J. Baird, Esquire
Attorney for Town of Jupiter

This the 24th day of July, 2020.

Notice to Proceed (NTP)

DATE: August 13, 2020

TO: Johnson-Davis, Inc.
604 Hillbrath Drive
Lantana, FL 33462

ATT: Mr. Wm. Clark C. Cryer, Estimating Manager

PROJECT: Stormwater Utility Infrastructure Repairs Unit Price Contract (S2029)
Town of Jupiter Utilities
Jupiter, Florida

Gentlemen:

One fully executed copy of your Contract is enclosed. The commencement date for the initial two year (730 calendar days) term of this Contract is August 13, ~~2022~~ 2020. The OWNER reserves the right to extend the Contract for additional terms as described in the Contract Documents.

Under this Contract, the Town will issue work orders to the Contractor for each project/repair/scope of work to be performed under this Contract on an as needed basis. The work orders will be agreed to between the Owner and the Contractor in writing with a detailed listing of the appropriate pay items identified in the Bid/Contract Schedule of Values as well as materials necessary to complete the work and a schedule for the work before a purchase order is issued. A preconstruction meeting will be scheduled on or before the date of Notice to Proceed.

Your attention is invited to the provision whereby you shall start to perform your obligations under this Contract on the Commencement date, which shall begin the Contract Time. Town of Jupiter Utilities will monitor the progress of the work and conformance with the Contract. The Contractor shall be responsible to record a Notice of Commencement with Palm Beach County and provide the Owner with a copy of the recorded document before the work begins.

We look forward to working with you on this project.

Sincerely,

Rebecca Wilder, P.E.
Town of Jupiter
Senior Engineer

SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

Page

Article 1— Definitions and Terminology 2

Article 2— Preliminary Matters 2

Article 3— Contract Documents: Intent, Requirements, Reuse 3

Article 4— Commencement and Progress of the Work 3

Article 5— Site, Subsurface and Physical Conditions, Hazardous Environmental COnditions 4

Article 6— Bonds and Insurance 5

Article 7— Contractor's Responsibilities 10

Article 8— Other Work at the Site 15

Article 9— Owner's Responsibilities 15

Article 10— Engineer's Status During Construction 15

Article 11— Changes to the Contract 17

Article 12— Claims 17

Article 13— Cost of Work; Allowances, Unit Price Work 17

Article 14— Tests and Inspections; Correction, Removal, or Acceptance of Defective Work 18

Article 15— Payments to Contractor, Set Offs; Completions; Correction Period 18

Article 16— Suspension of Work and Termination 19

Article 17— Final Resolutions of Disputes 19

Article 18— Miscellaneous 19

Exhibit A— Forms associated with sales and use tax exemption program for procurement of materials, by owner, to be incorporated into this project 20

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SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC-4.05."

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

SC - 1.01.A.22 Add the following language to the definition of Engineer. The additional language should be added immediately after the end of the first sentence of Item 1.01.A.22.

The term Engineer in this Contract refers to either or all of the following: the Design Engineer, the Owner's Engineer serving as Owner's project manager and Engineer during construction, another Engineer from whom Owner seeks expertise or guidance during construction of the Work. Engineer may be employed directly by Owner, or be a consultant of Owner.

SC - 1.01.A.30 Add the following language to the definition of Owner. The additional language should be added immediately after the end of the first sentence of Item 1.01.A.30, as follows:

Owner will administer the Contract during construction.

SC - 1.01.A.33 Add the following language to the definition of Resident Project Representative immediately after the 2nd sentence of Item 1.01.A.33.

Owner will provide the RPR. RPR may be an employee of Owner or a consultant of Owner.

ARTICLE 2—PRELIMINARY MATTERS

2.02 *Copies of Documents*

SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:

A. Owner shall furnish to Contractor two printed copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction. In addition, Owner shall furnish to Contractor two full size (24"x36") sets

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of Conformed Construction Drawings, two reduced size (11"x17") sets of Conformed Construction Drawings, and one electronic copy of Conformed Construction Drawings in PDF and AutoCAD formats. AutoCAD format is provided solely for Contractor's use in preparing and providing Owner with Record Drawings.

SC-2.05A Delete the Paragraph 2.05A in its entirety and insert the following new paragraph in its place. Paragraphs 2.05A.1, 2.05.A.2, 2.05.A.3 and 2.05.A.4 shall remain as written.

A. At least 10 days before submission of the first Application for Payment, Contractor shall submit to Owner, a draft Application for Payment based on the schedule of values accepted by Owner in response to the Contractor's schedule of values submitted in accordance with Paragraph 2.03.A.3. No progress payment will be made to Contractor until acceptable schedules are submitted to Owner.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

SC-3.01.E Delete Paragraph 3.01.E in its entirety and insert the following new paragraph:

E. Owner or Engineer may issue clarifications and interpretations of the Contract Documents as provided herein.

SC-3.02.A.2 Amend the language of the first sentence in Paragraph 3.02.A.2 to read as follows:

No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Owner.

SC-3.03.A.1 Amend the language of the second sentence in Paragraph 3.03.A.1 to read as follows:

Contractor shall promptly report in writing to Owner ~~Engineer~~ any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Owner or Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

SC-3.04.A Add the following sentence immediately after the last sentence in Paragraph 3.04.A.

Owner may choose to request the interpretation of the Design Engineer or another Engineer, at Owner's sole discretion.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.05 *Delays in Contractor's Progress*

SC-4.05.C.1 Amend Paragraph 4.05.C.1 to include hurricanes.

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SC-4.05.C.2 Add the following sentence to the end of Item 4.05.C.2

Abnormal weather conditions shall apply to excessive rainfall that exceeds the historical three (3) year average for the specific month in which Contractor claims the weather delays interrupted the critical path towards completing the Work. Rainfall measurements shall be as reported by the Owner's weather station, located at the Owner's water treatment plant, or a South Florida Water Management District (SFWMD) weather station located near the Site. Actual rainfall that exceeds the historical three year average for the specified month will justify an abnormal weather condition for which Contractor may request a change in Contract Time.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

Report Title	Date of Report	Technical Data
None for this project		

F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
None for this project		

G. Contractor may examine copies of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents at **the Jupiter Water Treatment Plant located at 17403 Central Boulevard, Jupiter, FL 33458** during regular business hours, or may request copies from Owner.

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5.06 *Hazardous Environmental Conditions*

SC-5.06 Add the following new paragraphs immediately after Paragraph 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

Report Title	Date of Report	Technical Data
None for this project		

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:

Drawings Title	Date of Drawings	Technical Data
None for this project		

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* Shall be in the Form provided in the Front Ends of the Contract Documents.
2. *Required Payment Bond Form:* Shall be in the Form provided in the Front Ends of the Contract Documents.

SC-6.01 Supplement Paragraph 6.01 with the following provisions after Paragraph 6.01.C:

1. *Required Performance Bond Form:* Shall be written by a surety with no less than an "A" rating by a national rating agency. All sureties must be on the U.S. Department of Treasury's listing of Approved Sureties and bonds must be written within the treasury's underwriting limitation.
2. *Required Payment Bond Form:* Shall be written by a surety with no less than an "A" rating by a national rating agency. All sureties must be on the U.S. Department of Treasury's listing of Approved Sureties and bonds must be written within the treasury's underwriting limitation.

6.02 *Insurance–General Provisions*

SC-6.02 Add the following language to the end of the last sentence in Paragraph 6.02.B:

"and Financial Stability: B+ to A+."

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6.03 *Contractor's Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds Owner, Engineer, and other entities as follows:

The following language shall appear on the Certificate of Insurance:

"The Town of Jupiter, Florida it's employees, agents, contractors, is hereby named Additional Insured under the terms of this policy and shall be provided any Notice of Cancellation of any of the required policies." The Certificate of Insurance shall be issued to Town of Jupiter, Attn: Amanda Z. Barnes, P.E., 17403 Central Boulevard, Jupiter, FL 33458.

A thirty (30) day Notice of Cancellation is required and must be stated on the Certificate of Insurance.

Certificates of Insurance (COI) shall be maintained current for the duration of the Contract. Contractor is responsible to provide Owner with updated COIs during the course of the Contract.

E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance. F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:

1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
2. damages insured by reasonably available personal injury liability coverage, and
3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage.
    a. Such insurance must be maintained for three years after final payment.
    b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
4. Underground, explosion, and collapse coverage.

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5. Personal injury coverage, with employment exclusion deleted.

6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.

7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).

2. Any exclusion for water intrusion or water damage.

3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.

4. Any exclusion of coverage relating to earth subsidence or movement.

5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).

6. Any limitation or exclusion based on the nature of Contractor's work.

7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	$1,000,000
Products—Completed Operations Aggregate	$1,000,000
Personal and Advertising Injury	$1,000,000
Bodily Injury and Property Damage—Each Occurrence	$1,000,000

J. *Automobile Liability:* Contractor shall purchase and maintain automobile liability insurance 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. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	$1,000,000
Each Accident	$1,000,000

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Automobile Liability	Policy limits of not less than:
Property Damage	
Each Accident	$1,000,000
[or]	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	$N/A

K. *Contractor's Pollution Liability Insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

Contractor's Pollution Liability	Policy limits of not less than:
Each Occurrence/Claim	$1,000,000
General Aggregate	$1,000,000

SC-6.04. Add the following sentence immediately before Paragraph 6.0.A

If there is a Bid Item or Pay Item in the Bid Schedule of Values for Builder's Risk Insurance, then Contractor shall provide Builder's Risk Insurance as required by Article 6.04 of the General Conditions. If a Bid Item or Pay Item is not provided for in the Bid Schedule of Values (or addenda during Bidding) then Contractor is not required to provide Builder's Risk Insurance for this Contract.

SC-6.04 Supplement Paragraph 6.04 of the General Conditions with the following provisions:

F. *Builder's Risk Requirements:* The builder's risk insurance must:

1. be written on a builder's risk "all risk" policy form that at a minimum includes insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment stored and in transit, and must not exclude the coverage of the following risks: fire; windstorm; hail; flood; earthquake, volcanic activity, and other earth movement; lightning; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; and water damage (other than that caused by flood).

    a. Such policy will include an exception that results in coverage for ensuing losses from physical damage or loss with respect to any defective workmanship, methods, design, or materials exclusions.

    b. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake, volcanic activity, and other earth

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movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance will be provided through other insurance policies acceptable to Owner and Contractor.

2. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

3. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of contractors, engineers, and architects).

4. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).

5. extend to cover damage or loss to insured property while in transit.

6. allow for the waiver of the insurer's subrogation rights, as set forth in this Contract.

7. allow for partial occupancy or use by Owner by endorsement, and without cancellation or lapse of coverage.

8. include performance/hot testing and start-up, if applicable.

9. be maintained in effect until the Work is complete, as set forth in Paragraph 15.06.D of the General Conditions, or until written confirmation of Owner's procurement of property insurance following Substantial Completion, whichever occurs first.

10 include as named insureds the Owner, Contractor, Subcontractors (of every tier), and any other individuals or entities required by this Contract to be insured under such builder's risk policy. For purposes of Paragraphs 6.04, 6.05, and 6.06 of the General Conditions, and this and all other corresponding Supplementary Conditions, the parties required to be insured will be referred to collectively as "insureds." In addition to Owner, Contractor, and Subcontractors of every tier, include as insureds the following:

    a. No others for this Contract.

11. include, in addition to the Contract Price amount, the value of the following equipment and materials to be installed by the Contractor but furnished by the Owner or third parties:

    a. None for this Contract.

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SC-6.04 Supplement Paragraph 6.04 of the General Conditions with the following provisions:

H. *Builder's Risk and Other Property Insurance Deductibles:* The purchaser of any required builder's risk, installation floater, or other property insurance will be responsible for costs not covered because of the application of a policy deductible.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.03 *Labor; Working Hours*

SC-7.03.C Amend the first and second sentences of Paragraph 7.03.C to state "...all Work at the Site must be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday."

SC-7.03.C Delete the third sentence in its entirety and insert the following sentences in its place.

Contractor may request in writing, to Owner, to perform Work outside of regular working hours. Owner is not obligated to consent to Work occurring outside of regular working hours, if it is not in Owner's best interest.

SC-7.03.C Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be Monday through Friday, 7:30am – 4:30pm. Work requiring inspection shall be scheduled to occur Monday through Friday, between the hours of 8:00am – 3:30 pm.

2. Owner's legal holidays for the year 2020 are as follows:

Wednesday, Jan. 1, 2020	New Year's Day
Monday, Jan. 20, 2020	Martin Luther King Jr. Day
Monday, Feb. 17, 2020	President's Day
Monday, May 25, 2020	Memorial Day
Friday, July 3, 2020	Independence Day (Observed)
Saturday, July 4, 2020	Independence Day
Monday, Sept. 7, 2020	Labor Day
Wednesday, Nov. 11, 2020	Veteran's Day
Thursday, Nov. 26, 2020	Thanksgiving Day
Friday, Nov. 27, 2020	Thanksgiving holiday
Thursday, Dec. 24, 2020	Christmas Eve Day
Friday, Dec. 25, 2020	Christmas Day

If the Contract Work is anticipated to go beyond 2020, Contractor shall anticipate observance of the same holidays (not the same dates) for future years.

SC-7.03.D Add the following new paragraph immediately after Paragraph 7.03.C:

D. Contractor shall be responsible for the cost of any overtime pay or other expense incurred by the Owner for Engineering services (including those of the Resident Project Representative, and geotechnical testing if any), Owner's representative, and construction observation services, occasioned by the performance of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day. Contractor shall execute a deductive change order with Owner to reduce the Contract Value by the cost of the expenses incurred by Owner for overtime pay and Work outside of regular work

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hours. If Contractor does not sign such change order, or if the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

7.10 *Taxes*

SC-7.10.B Add a new paragraph immediately after Paragraph 7.10.A:

B. Owner is exempt from payment of sales and compensating use taxes of the State of Florida and of cities and counties thereof on all materials to be incorporated into the Work. Owner may exercise its rights to purchase materials to be incorporated into the Work of this Contract under the provisions governing the State of Florida's Sales and Use Tax Exemption for Owner furnished materials as follows:

1. Sales and Use Taxes. Owner is exempt from paying sales and use taxes on materials and equipment purchased for, and incorporated into this Public Works Contract (hereinafter the "Project") in accordance with Florida Statute 12A-1.094. The Owner shall make direct purchases of all materials and equipment purchased for, or to be incorporated into the Project, as agreed upon between the Contractor and the Owner. All direct purchases of materials and equipment shall be made by the Owner with funds specifically allocated for construction of the Project. Contractor shall provide Owner with a proposed deductive change order no later than 10 calendar days after request by Owner for materials and equipment to be purchased by the Owner for the Project. The proposed deductive change order shall include the costs of the materials to be purchased by the Owner including sales tax. The Town of Jupiter Purchase Order Standard Terms and Conditions, Certificate of Entitlement and Construction Contract Documents (plans and specifications) and requirements shall apply to work performed under this program. Each vendor/supplier of equipment under this Sales Tax Recovery Program shall be obligated to meet the requirements of the Town of Jupiter Construction Contract Documents and State Law (F.S. 12A-1.094).

2. The Contractor shall: (a) compile Contractor's and any Subcontractors' itemized requirement for materials and equipment, including quantities, unit costs, manufacturers' or vendors' catalogue or order numbers, delivery instructions, and other specific information that is required to order the specific materials and equipment, and terms and conditions to be imposed on suppliers regarding delivery and submittal time requirements, and quantities thereof required by Contractor or Subcontractors in accordance with the applicable requirements of the Construction Contract, from time to time, during the construction of the Project, as materials and equipment need to be ordered for the Project, and submit such compilation to the Owner's designated representative: (b) prepare a requisition for such materials and equipment and (c) deliver any such requisition to the owner's designated representative no less than thirty (30) days prior to the date the manufacturer or vendor of the materials or equipment, as the case may be, requires orders for such materials or equipment to be placed to assure delivery of such materials or equipment to the Site in accordance with the Project Schedule (the "Order Date"). The requisitions shall identify the Order Date. Upon receipt of any such requisition the Owner's designated representative shall forward same to the Owner. The Owner shall issue a Purchase Order directly to the vendor of the materials or

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equipment, prior to the Owner Date (a Purchase Owner). The Owner shall include with any such Purchase Order, a copy of the owner's sales and use tax exemption certificate, a Certificate of Entitlement and the order requisition prepared by the Contractor. The Owner shall also provide the Contractor with a Certificate of Entitlement for each vendor from which materials or equipment is purchased under this program. The vendor shall issue the invoice directly to the Owner. The owner shall make direct payment to the vendor.

3. The Contractor, upon the delivery of any such materials or equipment, shall verify the conformity of such materials or equipment with the terms of the Purchase Order and the Contract Documents. If the Contractor determines that the materials and equipment are conforming, the Owner shall take title and possession of such material and equipment before such materials and equipment are incorporated into the Project. If the Contractor determines that the materials and equipment are non-conforming, the Contractor shall immediately notify the Owner in writing and the Owner shall reject such material and equipment.

4. The Owner shall assume all risk of loss on all materials and equipment purchased pursuant to its sales and use tax exemption.

5. To the extent that materials and equipment are purchased pursuant to the Owner's sales and use tax exemption, the Contractor shall reduce the Contractor Amount and the penal sum of its public construction bond by 1.06, or the applicable sales and use tax at the time, times the cost of the materials and equipment purchased directly by the Owner.

6. The Contractor shall be fully responsible for all matters relating to the receipt of materials and equipment furnished by the Owner in accordance with this Special Condition, including, but not limited to, the responsibility for verifying correct quantities, verifying documents or orders in a timely manner, coordinating purchases, providing and obtaining all warranties and guarantees required by the Contract Documents, inspection and acceptance of the materials and equipment at the time of delivery, and loss or damage to materials and equipment following acceptance of items due to the negligence of such Contractor or any Subcontractors. The Contractor shall coordinate delivery schedules, sequence of delivery, loading orientation, and other arrangements normally required by such Contractor for the particular materials furnished. The Contractor shall provide or arrange for all services required for the unloading, handling and storage of such materials and equipment through installation.

7. The Contractor shall visually inspect all shipments from material and equipment vendors purchased directly by the Owner in accordance with this Special Condition (the "Owner Furnished Materials") and approve the vendors' invoices for materials or equipment delivered, as Owner-Furnished Materials are furnished to the Site in accordance with this Special Condition. The Contractor shall assure that each delivery of Owner Furnished Materials is accomplished by documentation adequate to identify the Purchase Order against which the purchase is made. This documentation may consist of a delivery ticket and an invoice from the vendor conforming to the Purchase Order, together with such additional information as the Owner may require. The Contractor shall deliver to the Owner's designated

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representative all invoices for materials and equipment upon verification by such Contractor that the materials and equipment conform exactly to the Contract Documents and the Purchase Order. Upon receipt of any invoice for Owner Furnished Materials, the Owner's designated representative shall deliver such invoice to the Owner for payment directly to the Vendor.

8. The Contractor shall inspect all Owner Furnished Materials to determine that such Owner Furnished Materials conform to the Contract Documents, including the Drawings and the Specifications, and to determine prior to incorporation into the work whether such Owner Furnished Materials are patently defective, and whether such Owner Furnished Materials are identical to the materials ordered and match the description of the bill of lading and the Purchase Order. If Contractor discovers defective or non-conforming Owner Furnished Materials upon such visual inspection, Contractor shall: (a) not recommend acceptance of such non-conforming materials and equipment, (b) not utilize such non-conforming or defective materials in the work: (c) not allow Subcontractor to utilize such non-conforming or defective materials in the work; and (d) promptly notify the Owner's designated representative, in writing, of the defective or non-conforming condition so that repair or replacement of those Owner Furnished Materials can occur without any undue delay or interruption to the Project. In the event that such Contractor fails to perform such inspection or otherwise incorporates into the work such defective or non-conforming materials, the Contractor shall be responsible for the repair and replacement of defective or non-conforming materials, at its sole cost and expense.

9. The Contractor shall maintain records of all Owner Furnished Materials incorporated into the work from the stock of Owner Furnished Materials. The Contractor shall account monthly to the Owner's designated representative and Owner for any Owner Furnished Materials delivered to the site, indicating which Owner Furnished Materials have been incorporated into the work.

10. The Contractor shall be responsible for obtaining and managing all warranties and guarantees for all Owner Furnished Materials. All repair, maintenance or damage-repair calls shall be forwarded by the Owner to the Contractor for resolution with the appropriate vendor or Subcontractor through the warranty period.

11. After the Owner takes possession of the Owner Furnished Materials at the site, possession of the Owner shall immediately and automatically transfer to the Contractor without notice. The transfer of possession of Owner Furnished Materials from the Owner to the Contractor shall constitute a bailment for the mutual benefit of the Owner and such Contractor. The Owner shall be considered the bailor and the Contractor the bailee of the Owner Furnished materials. Owner Furnished Materials shall be considered returned to the Owner for purposes of their bailment at such time as they are incorporated into the Project or consumed in the process of completing the Project.

12. The Contractor shall purchase and maintain builder's risk insurance, naming the Owner as an additional insured, sufficient to protect against loss of or damage to Owner Furnished Materials. Such insurance shall be in the amount stated elsewhere in the Contract and shall cover the full value of any Owner Furnished

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Materials between the time the Owner first takes title to and possession of any of such Owner Furnished Materials until final completion of the work."

13. The Owner shall not be liable for any interruption or delay damages in the project by virtue of ordering the Owner Furnished Materials, for any defects or other problems with the project by virtue of ordering the Owner Furnished Materials, or for any extra costs resulting from any delay in the delivery of, or defects in, the Owner Furnished Materials.

14. The Contractor, on a monthly basis, shall review invoices submitted by all vendors of Owner Furnished Materials delivered to the site during the prior month and either concur or object to the Owner's Issuance of payment to the vendors, based upon such Contractor's records of materials delivered to the site and whether any of the Owner Furnished Materials for which payment has not been made were either non-conforming or defective.

15. In order to arrange for the prompt payment to the vendor, the Contractor shall provide to the Owner's designated representative a list of the acceptance of the goods or materials within fifteen (15) days of receipt of said goods or materials. Accompanying the list shall be a copy of the applicable purchase order, invoices, delivery tickets, written acceptance of the delivered items, and such other documentation as may be reasonably required by the Owner. Upon receipt of the appropriate documentation, the Owner shall process vendor's invoice for payment directly to vendor by electronic funds transfer (EFT) based upon the receipt of data provided. The Contractor shall assist the Owner to immediately obtain partial or final release of waivers as appropriate. The Owner shall not make any payment without the appropriate Contractor's concurrence and approval. Owner shall hold up to 10% retention on Owner Furnished Materials against the Vendor, for equipment requiring operational and start-up testing. Owner shall release retention upon successful start-up and operational testing of the equipment as agreed to between the Owner, Contractor and Vendor. Owner may hold up to 2% retention until vendor record drawings and operation and maintenance manuals are accepted by the Contractor and Owner.

16. The Contractor may, in its reasonable discretion, require certain material and equipment vendors to provide a supply bond in the amount of one-hundred percent (100%) of the purchase order price. The supply bond, if required, shall be issued by a qualified surety company authorized to do business in the State of Florida and acceptable to the Owner. If the supply bond is required, the costs thereof will be added to the amount of the purchase order. The Contractor shall verify that a vendor can furnish a supply bond. All bonds will name the Owner and the Contractor as additional obliges. To the extent that materials and equipment are purchased pursuant to the Owner's sales and use tax exemption, the Contractor shall reduce the Contract Amount and the penal sum of its public construction bond by 1.06, or the applicable sales and use tax at the time, times the cost of the materials and equipment purchased directly by the Owner.

17. The Contractor is advised that the following list of equipment may be included under the sales and use tax exemption program for Owner furnished equipment. This list is provided to the Contractor for informational purposes only. The Owner

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reserves the right to revise the quantity of Owner furnished equipment by deleting equipment listed or including equipment not listed herein. Contractor may make suggestions to Owner as to other components of the project that may be Owner purchased under this program for this project.

Purchase Order Standard Terms and Conditions and a Certificate of Entitlement are provided as Exhibit A in at the end of these Supplemental Conditions. Both of these documents will be issued to the Vendor for procurement of materials and supplies to be incorporated into this Contract under the Sales and Use Tax Exemption Program. Contractor will also receive copies of the Certificate of Entitlement, and purchase order to vendor with purchase order standard terms and conditions.

ARTICLE 8—OTHER WORK AT THE SITE

No changes are made to the General Conditions for this Article.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.13 *Owner's Site Representative*

SC-9.13 Add the following new paragraph immediately after Paragraph 9.12 of the General Conditions:

9.13 *Owner's Administration of Contract and Site Representative*

A. Owner will administer the Contract during construction. Owner will furnish an Engineer to manage the Contract and certify construction completion for close out of regulatory permits. Owner's Engineer is an employee of the Owner, not an Engineering consultant, or agent. Owner may at Owner's discretion refer to the Design Engineer for interpretation, input, and review of components during administration of the Contract.

B. Owner will furnish the "Owner's Site Representative" to represent Owner at the Site and assist Owner in observing the progress and quality of the Work. The Owner's Site Representative will be an employee of Owner. Owner may at Owner's discretion request from Design Engineer assistance with furnishing a Site Representative to assist with construction observation and inspection.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.03 *Resident Project Representative*

SC10.01.A.1 Add the following new subparagraph immediately after Paragraph 10.01.A:

1. On this Project, by agreement with the Owner, the Design Engineer will not serve as the Engineer during construction. Owner will furnish a project manager who will serve as the Engineer during construction. Owner's Engineer will have all authority as described in Article 10.04 of the General Conditions. Owner's Engineer may request assistance from the Design Engineer with items such as shop drawing reviews, interpretations and clarifications during construction, and to provide other input as requested by Owner at Owner's discretion.

SC-10.03.A Add the following new subparagraph immediately after Paragraph 10.03.A:

1. On this Project, by agreement with the Owner, the Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing

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the progress and quality of the Work. Owner will furnish the Resident Project Representative for this project.

SC-10.03.C Add the following new paragraphs immediately after Paragraph 10.03.B:

C. The Resident Project Representative (RPR) will be Owner's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with the Owner's Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:

1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.

2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.

3. *Liaison*

   a. Serve as Owner's liaison with Contractor. Working principally through Contractor's authorized representative or designee; assist in providing information regarding the provisions and intent of the Contract Documents.

   b. Serve as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.

   c. Assist in obtaining from Owner additional details or information, when required for Contractor's proper execution of the Work.

4. *Review of Work; Defective Work*

   a. Conduct on-Site observations of the Work to assist Owner's Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.

   b. Observe whether any Work in place appears to be defective.

   c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.

5. *Inspections and Tests*

   a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.

   b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.

6. *Payment Requests:* Review Applications for Payment with Contractor.

7. *Completion*

   a. Participate in Owner Engineer's visits regarding Substantial Completion.

   b. Assist in the preparation of a punch list of items to be completed or corrected.

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c. Participate in Owner Engineer's visit to the Site in the company of Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.

d. Observe whether items on the final punch list have been completed or corrected.

D. The RPR will not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.

3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.

5 Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.

6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Owner's Engineer.

7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

No changes are made to the General Conditions for this Article.

ARTICLE 12—CLAIMS

No changes are made to the General Conditions for this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.01 *Cost of the Work*

SC-13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental rate book that governs the included costs for the rental of machinery and equipment owned by Contractor (or a related entity) under the Cost of the Work provisions of this Contract is the most current edition of Rental Rate Blue Book for Construction Equipment.

SC-13.01 Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:

a. For purposes of this paragraph, "small tools and hand tools" means any tool or equipment whose current price if it were purchased new at retail would be less than $500.

13.03 *Unit Price Work*

SC-13.03 Delete Paragraph 13.03.E in its entirety and insert the following in its place:

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E. *Adjustments in Unit Price*

1. Unit prices shall remain firm for the duration of the Contract. No changes in unit price shall be permitted.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.05.B Delete Paragraph 14.05.B in its entirety and insert the following in its place:

B. If any Work is covered contrary to the written request of Engineer, or requirements of the Contract Documents, including Drawings and Specifications, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at the Contractor's expense.

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

15.01 *Progress Payments*

SC-15.01 Add the following sentences immediately before Paragraph 15.01 as follows:

All references to the term Engineer in Article 15 shall refer to Owner's Engineer, who is administering the Contract, serving as Owner's project manager, and serving as Engineer during construction.

SC-15.01.C.1 Amend the language of Paragraph 15.01.C.1 to read as follows:

1. Owner will, within 14 days, after receipt of each Application for Payment from Contractor, including each resubmittal, either indicate in writing to Contractor that Owner agrees with the recommendation for payment and payment will be made, or return the Application to Contractor indicating in writing the reasons for Owner's refusal to recommend payment. In the latter case, Contractor shall make the necessary corrections and resubmit the Application.

SC-15.01.D.1 Amend the language of Paragraph 15.01.D.1 to read as follows:

1. Thirty (30) days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set offs) will become due, and when due will be paid by Owner to Contractor.

15.03 *Substantial Completion*

SC-15.03 Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.

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ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No changes are made to the General Conditions for this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

No changes are made to the General Conditions for this Article.

ARTICLE 18—MISCELLANEOUS

No changes are made to the General Conditions for this Article.

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PURCHASE ORDER STANDARD TERMS AND CONDITIONS

FOR

TOWN OF JUPITER UTILITIES

1) Purchase Order number must show on all invoices, shipments, correspondence, and any other documents related to the purchase order.

2) Invoices shall be submitted in triplicate. If a partial shipment is made, so state this on the invoice. Also state whether the invoice is final or complete.

3) This purchase order is subject to the approval of 6 copies of submitted data prior to fabrication and shipment.

4) Vendor's final invoice will not be honored until receipt of 3 final copies of operation and maintenance instructions, the Contract Documents, spare parts lists, and record drawings, if applicable.

5) All material and equipment furnished hereunder shall be in strict compliance with plans, specifications, and general conditions of the Contract between _____ (Contractor) and (Purchaser) the Town of Jupiter Utilities (Owner) entitled "_____" (name of contractor) and / or with any other contractor, in connection with the job for which these items are furnished, and vendor shall be bound thereby in the performance of this contract. Vendor expressly warrants that all material and equipment covered by this purchase order shall produce capacities or meet design specifications and function as called for in the applicable plans and specifications, or as set forth in the text of this order.

6) All material and equipment contemplated under this order shall be subject to the approval of the Purchaser and the Owner, and / or his Architects, Engineers, or other parties designated by the Owner. All materials and equipment, actually furnished under this order, shall be subject to Purchaser's inspection and testing to determine compliance with the requirements of this order. Vendor shall furnish the indicated number of submittal data or samples for said approval.

7) Owner shall issue to Vendor and Contractor with this purchase order a completed and signed Certificate of Entitlement. A copy of Owner's Florida Consumer's Certificate of Exemption shall accompany the purchase order issued directly to the Vendor.

8) Vendor guarantees against defects in material or workmanship all items covered by this purchase order and will repair or replace, freight prepaid to jobsite without cost to purchaser or Owner, any part found to be defective in material or workmanship within that time provided by the Contract Documents as indicated, or one year from date of initial operation or 18 months from date of shipment, whichever is longer. On any part found to be defective at jobsite prior to initial startup seller shall make repairs or replacement with his own forces, or reimburse Contractor for necessary labor. Defective parts will be returned freight collect only upon written request and instructions from the vendor. In the event more than one person or entity is listed on the front side of this purchase order as Vendor or is identified as an agent, that person or entity shall also be fully liable on and responsible for the performance of all of the Vendor's obligations under this purchase order. Initial Operation shall be when the materials or equipment are placed into service for use by Owner.

9) Notice to Purchaser of all shipments of equipment and / or materials shall be given immediately, noting date, routing, order number, description, and copy of bill of lading. Ultimate delivery of equipment requiring rigging shall be made by suitable vehicle. Equipment and / or materials in transit shall be adequately protected from the elements. The materials and equipment covered by this order shall remain the property of the Vendor until actually received at the destination by the Purchaser and Owner. Payment for goods damaged in transit, regardless of how shipped, will be withheld until repairs or replacement are made and claim against transportation company is resolved.

10) Cancellation of all or any part of this order to be effected at no cost to Contractor or Owner for failure of the Vendor to:

a) Secure written approval of submittal data by approving authority or purchaser.

b) Furnish any portion of this order within specified time limits.

11) In the event the contract price or prices and terms set forth herein, including any changes that may be made therein, violate an applicable schedule, regulation or order here before or hereafter issued by an approved Government Agency, the contract price or prices shall be the maximum prices permitted by, and the terms shall be in accordance with such schedule, regulations or order. All prices listed on the front side of this order are firm for duration of the project and no escalation will be allowed. Vendor shall not assign this purchase order without the written consent of Purchaser and Owner; except however, Vendor assigns to Purchaser all of Vendor's right and interest in any payments due or to become due to Vendor under this purchase order as security for the payment and satisfaction of any sums due Purchaser or to become due to Purchaser under this or any other purchase order, contract or agreement between Vendor and Purchaser or debt due Purchaser for which Vendor may be liable to Purchaser.

12) The Vendor hereby agrees to indemnify, defend and hold harmless the Purchaser and Owner, and their officers, agents, employees and designees from and against all claims, liability, damages, losses, costs, or expenses whatsoever (including without limitation all attorney's fee, cost and expenses) arising out of or in connection with this Purchase Order and the materials, goods, or services provided by Vendor including without limitation those attributable to bodily injury or death, property damage or destruction, or by reason of any action or alleged infringement or letters patent or any litigation based thereon covering any article purchased hereunder. Such indemnification shall not include claims of, or damages resulting from, gross negligence, or willful, wanton or intentional misconduct of the parties indemnified hereunder. Vendor's indemnification is limited to the extent of insurance coverage maintained by Vendor, or One Million Dollars ($1,000,000), whichever is greater. [NOTE: If this Purchase Order is in connection with a public agency's project, then Vendor's indemnity obligations are limited to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Vendor and persons employed or utilized by Vendor in the performance of the Purchase Order.]

13) Vendor shall furnish all necessary releases, lien waivers, affidavits, or other documents, all as required by the Contract Documents and / or to keep the Owner's premises free from liens or claims arising out of the furnishing of materials or equipment herein, as payments are made from time to time under this order.

14) Any acceptance in a manner or on terms and conditions different from those contained in this order shall not operate as an acceptance. This order, when accepted by the Vendor, shall constitute a valid and binding contract which shall be governed by and construed according to the laws of the State of Florida. All prior options, conversations, or preliminary negotiations shall be deemed to be merged in this order.

15) The above conditions and conditions printed or typed on front of side of this order, can only be changed by written authorization of the Contractor and the Owner, and are not to be abridged by any terms or conditions of sale printed on Vendor's quotation, acknowledgement, invoice, or other like form.

The terms and conditions contained in this order shall be binding upon Vendor unless it objects in writing within 10 days of receipt this order.

16) All purchases are F.O.B. destination, freight prepaid by Seller unless otherwise stated on the Purchase Order. Collect shipments will not be accepted.

17) Calculations for invoice payment will be calculated from date Town receives the invoice.

18) Title of goods shall pass to Buyer upon acceptance.

19) Seller shall comply with the Fair Labor Standards Act and Equal Employment Opportunity Provisions of Executive Orders.

20) Seller is expressly prohibited from delegating its duties and obligations or transferring or assigning its rights hereunder without the prior written approval of Buyer.

21) If items purchased are classified as toxic or hazardous substances under Chapter 403, Florida Statutes, Seller must submit copies of the Material Safety Data Sheet IMSOSI for each substance to the Town of Jupiter's Risk Management Coordinator, 210 Military Trail, Jupiter, Florida 33458 and to the delivery location at time of shipment. Products must be identified and labeled in accordance with OSHA standards. Failure to comply with these requirements will result in delay of payment until compliance is affected.

22) This purchase Order shall be governed and construed according to the laws of the State of Florida.

23) EXCISE AND SALES TAXES: The prices herein should not include any Federal excise taxes or sales taxes imposed by any State or Municipal Government. Such taxes, if included, must be deducted by the vendor when submitting claim for payment.

24) Non-Appropriation of Funds: It is understood that Town funds are contingent upon the availability of lawful appropriations by the Town Council. Subject to the applicable provisions of the Town Charter, the Town represents: that it has adequate funds to meet its obligations under this order for the full price set forth herein; and that it has no reason to believe that it will not have sufficient funds to enable it to make all payments due hereunder during such contract period. However, if the Town Council fails at any time during such contract period(s) to continue funding for any purchase order awarded, the Towns obligations under such contract(s) are terminated as of the date that the funding expires without further obligation to the Town.

CERTIFICATE OF ENTITLEMENT

The undersigned authorized representative of_____ (hereinafter "Governmental Entity"), Florida Consumer's Certificate of Exemption Number_____, affirms that the tangible personal property purchased pursuant to Purchase Order Number_____ from _____ (Vendor) on or after _____ (date) will be incorporated into or become a part of a public facility as part of a public works contract pursuant to contract # _____ with _____ (Name of Contractor) for the construction of _____.

Governmental Entity affirms that the purchase of the tangible personal property contained in the attached Purchase Order meets the following exemption requirements contained in Section 212.08(6), F.S., and Rule 12A-1.094, F.A.C.:

You must initial each of the following requirements.

____ 1. The attached Purchase Order is issued directly to the vendor supplying the tangible personal property the Contractor will use in the identified public works.

____ 2. The vendor's invoice will be issued directly to Governmental Entity.

____ 3. Payment of the vendor's invoice will be made directly by Governmental Entity to the vendor from public funds.

____ 4. Governmental Entity will take title to the tangible personal property from the vendor at the time of purchase or of delivery by the vendor.

____ 5. Governmental Entity assumes the risk of damage or loss at the time of purchase or delivery by the vendor.

Governmental Entity affirms that if the tangible personal property identified in the attached Purchase Order does not qualify for the exemption provided in Section 212.08(6), F.S., and Rule 12A-1.094, F.A.C., Governmental Entity will be subject to the tax, interest, and penalties due on the tangible personal property purchased. If the Florida Department of Revenue determines that the tangible personal property purchased tax-exempt by issuing this Certificate does not qualify for the exemption, Governmental Entity will be liable for any tax, penalty, and interest determined to be due.

I understand that if I fraudulently issue this certificate to evade the payment of sales tax I will be liable for payment of the sales tax plus a penalty of 200% of the tax and may be subject to conviction of a third degree felony.

Under the penalties of perjury, I declare that I have read the foregoing Certificate of Entitlement and the facts stated in it are true.

_____ _____

Signature of Authorized Representative Title

_____ _____

Purchaser's Name (Print or Type) Date

Federal Employer Identification Number: _____

Telephone Number: _____

You must attach a copy of the Purchase Order to this Certificate of Entitlement.

Do not send to the Florida Department of Revenue. This Certificate of Entitlement must be retained in the vendor's and the contractor's books and records.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

Page

Article 1—Definitions and Terminology 1
1.01 Defined Terms 1
1.02 Terminology 6
Article 2—Preliminary Matters 7
2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance 7
2.02 Copies of Documents 7
2.03 Before Starting Construction 7
2.04 Preconstruction Conference; Designation of Authorized Representatives 8
2.05 Acceptance of Schedules 8
2.06 Electronic Transmittals 8
Article 3—Contract Documents: Intent, Requirements, Reuse 9
3.01 Intent 9
3.02 Reference Standards 9
3.03 Reporting and Resolving Discrepancies 10
3.04 Requirements of the Contract Documents 10
3.05 Reuse of Documents 11
Article 4—Commencement and Progress of the Work 11
4.01 Commencement of Contract Times; Notice to Proceed 11
4.02 Starting the Work 11
4.03 Reference Points 11
4.04 Progress Schedule 12
4.05 Delays in Contractor's Progress 12
Article 5—Site; Subsurface and Physical Conditions; Hazardous Environmental Conditions 13
5.01 Availability of Lands 13
5.02 Use of Site and Other Areas 14
5.03 Subsurface and Physical Conditions 15
5.04 Differing Subsurface or Physical Conditions 16

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5.05 Underground Facilities 17
5.06 Hazardous Environmental Conditions at Site 19
Article 6—Bonds and Insurance 21
6.01 Performance, Payment, and Other Bonds 21
6.02 Insurance—General Provisions 22
6.03 Contractor's Insurance 24
6.04 Builder's Risk and Other Property Insurance 25
6.05 Property Losses; Subrogation 25
6.06 Receipt and Application of Property Insurance Proceeds 27
Article 7—Contractor's Responsibilities 27
7.01 Contractor's Means and Methods of Construction 27
7.02 Supervision and Superintendence 27
7.03 Labor; Working Hours 27
7.04 Services, Materials, and Equipment 28
7.05 "Or Equals" 28
7.06 Substitutes 29
7.07 Concerning Subcontractors and Suppliers 31
7.08 Patent Fees and Royalties 32
7.09 Permits 33
7.10 Taxes 33
7.11 Laws and Regulations 33
7.12 Record Documents 33
7.13 Safety and Protection 34
7.14 Hazard Communication Programs 35
7.15 Emergencies 35
7.16 Submittals 35
7.17 Contractor's General Warranty and Guarantee 38
7.18 Indemnification 39
7.19 Delegation of Professional Design Services 39
Article 8—Other Work at the Site 40
8.01 Other Work 40
8.02 Coordination 41
8.03 Legal Relationships 41

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Article 9—Owner's Responsibilities 42
9.01 Communications to Contractor 42
9.02 Replacement of Engineer 42
9.03 Furnish Data 42
9.04 Pay When Due 42
9.05 Lands and Easements; Reports, Tests, and Drawings 43
9.06 Insurance 43
9.07 Change Orders 43
9.08 Inspections, Tests, and Approvals 43
9.09 Limitations on Owner's Responsibilities 43
9.10 Undisclosed Hazardous Environmental Condition 43
9.11 Evidence of Financial Arrangements 43
9.12 Safety Programs 43
Article 10—Engineer's Status During Construction 44
10.01 Owner's Representative 44
10.02 Visits to Site 44
10.03 Resident Project Representative 44
10.04 Engineer's Authority 44
10.05 Determinations for Unit Price Work 45
10.06 Decisions on Requirements of Contract Documents and Acceptability of Work 45
10.07 Limitations on Engineer's Authority and Responsibilities 45
10.08 Compliance with Safety Program 45
Article 11—Changes to the Contract 46
11.01 Amending and Supplementing the Contract 46
11.02 Change Orders 46
11.03 Work Change Directives 46
11.04 Field Orders 47
11.05 Owner-Authorized Changes in the Work 47
11.06 Unauthorized Changes in the Work 47
11.07 Change of Contract Price 47
11.08 Change of Contract Times 49
11.09 Change Proposals 49
11.10 Notification to Surety 50

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Article 12—Claims 50
12.01 Claims 50
Article 13—Cost of the Work; Allowances; Unit Price Work 51
13.01 Cost of the Work 51
13.02 Allowances 55
13.03 Unit Price Work 55
Article 14—Tests and Inspections; Correction, Removal, or Acceptance of Defective Work 56
14.01 Access to Work 56
14.02 Tests, Inspections, and Approvals 56
14.03 Defective Work 57
14.04 Acceptance of Defective Work 58
14.05 Uncovering Work 58
14.06 Owner May Stop the Work 58
14.07 Owner May Correct Defective Work 59
Article 15—Payments to Contractor; Set-Offs; Completion; Correction Period 59
15.01 Progress Payments 59
15.02 Contractor's Warranty of Title 62
15.03 Substantial Completion 62
15.04 Partial Use or Occupancy 63
15.05 Final Inspection 64
15.06 Final Payment 64
15.07 Waiver of Claims 65
15.08 Correction Period 66
Article 16—Suspension of Work and Termination 67
16.01 Owner May Suspend Work 67
16.02 Owner May Terminate for Cause 67
16.03 Owner May Terminate for Convenience 68
16.04 Contractor May Stop Work or Terminate 68
Article 17—Final Resolution of Disputes 69
17.01 Methods and Procedures 69
Article 18—Miscellaneous 69
18.01 Giving Notice 69
18.02 Computation of Times 69

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18.03 Cumulative Remedies 70
18.04 Limitation of Damages 70
18.05 No Waiver 70
18.06 Survival of Obligations 70
18.07 Controlling Law 70
18.08 Assignment of Contract 70
18.09 Successors and Assigns 70
18.10 Headings 70

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*

a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

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requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.

c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.

d. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.

20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

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recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.

23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

    a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.

    b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.

    c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.

28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.

32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

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33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.

34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.

36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.

39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

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43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.

44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

46. *Technical Data*

    a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.

    b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.

    c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.

47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

48. *Unit Price Work*—Work to be paid for on the basis of unit prices.

49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

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1.02 *Terminology*

A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*: The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*: The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*: The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

1. does not conform to the Contract Documents;

2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

3. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).

E. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

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F. *Contract Price or Contract Times*: References to a change in "Contract Price or Contract Times" or "Contract Times or Contract Price" or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term "or both" is not expressed.

G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).

B. *Evidence of Contractor's Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.

C. *Evidence of Owner's Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

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into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.

B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

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ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

G. Nothing in the Contract Documents creates:

1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

A. *Standards Specifications, Codes, Laws and Regulations*

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

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inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

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B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

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established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. Abnormal weather conditions;

3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and

4. Acts of war or terrorism.

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D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.

2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;

2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;

3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;

4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and

5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.

G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

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B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

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and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;

2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and

3. Technical Data contained in such reports and drawings.

B. *Underground Facilities*: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. *Reliance by Contractor on Technical Data*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

D. *Limitations of Other Data and Documents*: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

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5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
2. is of such a nature as to require a change in the Drawings or Specifications;
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

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Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;

b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. *Underground Facilities; Hazardous Environmental Conditions*: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

2. complying with applicable state and local utility damage prevention Laws and Regulations;

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3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;

4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.

C. *Engineer's Review*: Engineer will:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;

2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;

3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and

4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Early Resumption of Work*: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. *Possible Price and Times Adjustments*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

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or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and

c. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

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of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.

H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

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conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.

B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.

C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

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Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.

E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.

F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.

H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.

D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

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Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

H. Contractor shall require:

1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.

I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.

K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

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L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.

M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

A. *Required Insurance*: Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.

B. *General Provisions*: The policies of insurance required by this Paragraph 6.03 as supplemented must:

1. include at least the specific coverages required;

2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;

3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;

4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and

5. include all necessary endorsements to support the stated requirements.

C. *Additional Insureds*: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:

1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;

2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;

3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

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4. not seek contribution from insurance maintained by the additional insured; and

5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.

B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.

C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.

E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

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Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.

C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.

D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

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6.06 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct 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.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

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B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.

C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

A. *Contractor's Request; Governing Criteria*: Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that the proposed item:

1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

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2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) has a proven record of performance and availability of responsive service; and

4) is not objectionable to Owner.

b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 *Substitutes*

A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

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3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:

   a. will certify that the proposed substitute item will:

      1) perform adequately the functions and achieve the results called for by the general design;

      2) be similar in substance to the item specified; and

      3) be suited to the same use as the item specified.

   b. will state:

      1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;

      2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

      3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

   c. will identify:

      1) all variations of the proposed substitute item from the item specified; and

      2) available engineering, sales, maintenance, repair, and replacement services.

   d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

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E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.

B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.

E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.

F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

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H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.

L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

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7.09 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.

C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

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7.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer 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 fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.

H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

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I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:

a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determine and verify:

1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;

2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;

c. confirm that the Submittal is complete with respect to all related data included in the Submittal.

2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

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3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. *Shop Drawings*

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.

2. *Samples*

a. Contractor shall submit the number of Samples required in the Specifications.

b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Engineer's Review of Shop Drawings and Samples*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

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document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. *Resubmittal Procedures for Shop Drawings and Samples*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.

2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. *Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs*

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:

   a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.

   b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.

   c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

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d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.

2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03. 2.04, and 2.05.

F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.

B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:

1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and

2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:

1. Observations by Engineer;

2. Recommendation by Engineer or payment by Owner of any progress or final payment;

3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. Use or occupancy of the Work or any part thereof by Owner;

5. Any review and approval of a Shop Drawing or Sample submittal;

6. The issuance of a notice of acceptability by Engineer;

7. The end of the correction period established in Paragraph 15.08;

8. Any inspection, test, or approval by others; or

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9. Any correction of defective Work by Owner.

E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.

C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

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D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;
2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.

D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

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E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer 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 so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. An itemization of the specific matters to be covered by such authority and responsibility; and

3. The extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

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B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.

2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.

C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

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9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

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ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer 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, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer 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, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.

B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

A. Engineer has the authority to reject Work in accordance with Article 14.

B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.

C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.

D. Engineer's authority as to changes in the Work is set forth in Article 11.

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E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer 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, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be 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 the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

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ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.

C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and

4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

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B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.

2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.

B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.

B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.

C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

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1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or

3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will be determined as follows:

1. A mutually acceptable fixed fee; or

2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;

b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;

c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and

f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

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11.08 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.

B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

A. *Purpose and Content*: Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal*: Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.

2. *Supporting Data*: The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.

    a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.

    b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

    The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review*: Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.

4. *Engineer's Full Review and Action on the Change Proposal*: Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

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Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and

4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

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and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

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2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.

5. Other costs consisting of the following:

   a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

   b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

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consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.

3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

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g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. The cost of purchasing, renting, or furnishing small tools and hand tools.

3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

6. Expenses incurred in preparing and advancing Claims.

7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:

a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.

b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:

1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.

2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.

2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

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Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. *Documentation and Audit*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

C. *Owner's Contingency Allowance*: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

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thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:

   a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

   b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.

2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

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D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
3. by manufacturers of equipment furnished under the Contract Documents;
4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

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losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

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or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the 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 the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

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establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

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4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

   a. to supervise, direct, or control the Work;

   b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

   c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;

   d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or

   e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

   a. the Work is defective, requiring correction or replacement;

   b. the Contract Price has been reduced by Change Orders;

   c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

   e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

   a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

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b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. The Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. The Contract Price has been reduced by Change Orders;

i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;

j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or

l. Other items entitle Owner to a set-off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

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submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

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significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
    a. all documentation called for in the Contract Documents;
    b. consent of the surety, if any, to final payment;
    c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

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d. a list of all duly pending Change Proposals and Claims; and

e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Final Application and Recommendation of Payment*: If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Notice of Acceptability*: In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.

D. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.

E. *Final Payment Becomes Due*: Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

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appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;
2. correct such defective Work;
3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.

B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

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F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

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attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

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provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
2. agree with the other party to submit the dispute to another dispute resolution process; or
3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

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18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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SECTION 01010 (REVISED ADDENDUM 1)

SUMMARY OF WORK

PART 1 – GENERAL

1.01 GENERAL

A. The purpose and intent of this Contract is to establish an hourly priced contract for the provision of crews with equipment to be used by Town of Jupiter Utilities Department to perform miscellaneous stormwater utility infrastructure maintenance, repairs, and or improvements through the issuance of individual Work Orders. Crews and equipment shall be available on an "as needed" basis with no guarantee by the Town of the amount of usage. Contractor shall be prepared to provide crews and equipment to respond to non-emergency and emergency work as well as hurricane and natural disaster related events.

B. For all non-emergency work orders, the Contractor will be required to submit a materials list with quantities, including restoration, with pricing from at least two different vendors for those items not included in the Bid Schedule of Values for the Town's consideration. The Town may direct purchase the materials under the Sales Tax and Use Program (described in the Supplemental Conditions) or ask the Contractor to purchase materials allowing a fifteen percent (15%) mark up on material pricing. Contractor shall also provide pricing for any subcontracted work as required to complete the Work. The allowable mark up on sub-contractor pricing will be five percent (5%). If Town is to direct purchase materials under the Sales Tax and Use Program, Contractor shall provide the Town with the materials list and quantities, coordinate with vendor for ordering, and delivery of materials, and haul the materials as needed to the job site.

C. For emergency work orders the Contractor will be required to submit an estimated material list with quantities and pricing, to the extent practical, including restoration for the Town's for approval. The Contractor will be responsible for the purchase of the materials, material delivery, schedule and all coordination with the vendor in emergency repair situations. Allowable Contractor mark up on materials is fifteen percent (15%) and on subcontracted work is five percent (5%).

D. For hurricane or natural disaster related response, the Contractor will be required to submit a Letter of Commitment (LOC) to the Town within fourteen (14) days of the date of the Notice to Proceed. The LOC shall detail the Contractor's ability to be available on an as-needed, on-call basis for hurricane or natural disaster events along with emergency labor and equipment rates. The LOC and emergency response activities shall be for work related to hurricane or natural disaster preparations prior to the event and/or recovery activities immediately following the event that are outside of and in addition to Contract Work. The

Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response and will be paid at the labor and equipment rates provided in the LOC.

E. Normal work hours under this Contract are Monday-Friday, 7:00am - 5:00pm. Work requiring inspection by Town representatives shall be scheduled to occur between 8:00am – 4:00pm, Monday-Friday. No work will be permitted on weekends, Town observed holidays, or outside of normal work hours without written approval by the Town. Contractor must request in writing, from the Town, permission to work outside of normal work hours at least one week in advance.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Furnish all labor, equipment, and materials (if applicable) to perform miscellaneous stormwater utility infrastructure maintenance, repairs, and/or improvements at the direction of the Town.

B. Prior to construction, the Contractor shall identify existing utilities. The Contractor will be responsible for the coordination of his work with the associated utility owners and permitting agencies having jurisdiction over the specific locations to be verified.

C. The Work may include providing temporary storm water facilities, bypass pumping or plugging, dewatering, and other appurtenant and miscellaneous items and work for a completed project. Sound attenuation shall be provided by Contractor for dewatering and by-pass pumps as needed to comply with the Town of Jupiter Noise Ordinance. Town will review each project with Contractor before asking Contractor to provide a proposal for the Town's review. Upon acceptance, the Town will provide a notice to proceed through issuance of a work order for the project.

D. Work shall be performed to minimize, to the greatest extent practical, traffic disruption and/or storm sewer downtime. Work must be coordinated, in advance, with utility personnel, affected residents, public and private entities, and/or regulatory agencies.

E. Acceptable Maintenance of Traffic (MOT) is the responsibility of the Contractor. Contractor shall submit MOT plans for approval to the Town and appropriate regulatory agencies before work begins with the cost of MOT included in the proposal for Work Order.

F. Contractor's Duties:

1. Contractor shall be a Florida licensed underground contractor. Equipment operators must be fully licensed, as applicable, and competent in the use of the assigned equipment. Failure to comply with any of these requirements is sufficient cause to terminate contract because of default by the Contractor.

2. The Contractor will be responsible for repairs and maintenance of its equipment. The equipment will be operated by the Contractor and kept in good working condition, including all grease, oil, parts and fuel as necessary.

3. Contractor's equipment deemed defective by the Town of Jupiter representative shall be promptly removed from the site. Personnel employed either directly or indirectly by the Contractor, who are deemed to be incompetent, inept or unfit to perform the work in the opinion of the Town of Jupiter Project representative, shall be promptly removed from the project under this Contract, and such personnel shall not again be employed to work on the project. Failure of the Successful Bidder to remove defective equipment or incompetent personnel may result in the termination of this Contract.

4. Subcontractors (when used) shall work directly for the Contractor and Contractor shall have a representative on site when sub-contractor is working.

5. Contractor is responsible to schedule and coordinate field materials testing services (i.e., density testing, concrete cylinders, etc.) with the Town's contracted geotechnical testing lab assigned to this contract. Contractor shall keep Town's Field Representative informed of scheduled testing services and Town's Field Representative must be present while field testing services are being performed. Town will pay for field testing services unless Town was not informed of scheduled testing and therefore not present or test results are unacceptable.

6. In the event of a hurricane or natural disaster, the Town will advise the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Town in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Town's facilities prior to an event and respond to the Town's facilities immediately following an event.

7. Review and incorporate Town-reviewed shop drawings, product data, and samples into the construction of the project.

8. Demolish, haul and dispose of, in a legal manner, all materials scheduled for demolition.

9. Receive and unload products at site; inspect for completeness or damage jointly with Town.

10. Repair or replace items damaged after receipt.

11. Arrange for product delivery to site.

12. Handle, store, protect and install all delivered products.

13. Submit claims for transportation damage and replace damaged, defective, or deficient items.

14. Arrange for manufacturers' warranties, inspections, and service.

15. Provide the Town with a one-year warranty on all equipment and workmanship from the date of substantial completion of each work order.

G. No guarantee is expressed or implied as to the total range and/or quantity of bid items to be issued in Work Orders under this contract. Estimated quantities on the Bid Schedule of Values are for Bid comparison purposes only. The Town reserves the right to issue Work Orders as and when required for proposed work for any, all, or any combination of bid items thereof. Town does not guarantee any value of work to be performed under this Contract.

H. Specific work orders for stormwater facilities and collection system rehabilitation, repair, improvement, construction will be developed between the Contractor and Town based on Contract Unit pricing, material pricing, and technology and remedial construction services as needed to complete the Work contemplated. Town reserves the right to select the technology for the scope of work contemplated.

I. Materials supplied and construction performed under this Contract shall comply with the latest version of Town of Jupiter Water and Stormwater Guide for Development, Design and Construction Standards and Engineering and Public Work Construction Standards, available on the Town of Jupiter website, www.jupiter.fl.us. Work performed in FDOT or Palm Beach County right of ways must comply with those agencies standards.

1.03 WORK BY OTHERS

A. The Contractor's attention is directed to the fact that work may be conducted at the sites by other contractors during the performance of the Work under this Contract. The Contractor shall conduct its operations so as to minimize interference, to the greatest extent practical, with the Work of other contractors, and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the sites, as required to perform their respective contracts.

B. The Contractor shall cooperate fully with all utility forces of the Town or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the Work, and shall schedule the Work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

1.04 SCHEDULE AND COORDINATION

A. The Town will notify the Contractor when maintenance, repair or improvements to Stormwater Utility infrastructure are required. The Contractor shall be prepared to conduct a site visit to be familiarized with existing conditions, prepare and submit a detailed scope of work, provide adequate notice prior to scheduling the work and mobilize to the site to complete work according to the time frames provided below.

B. For non-emergency work orders, the Contractor shall meet with the Town or visit the work site within five (5) working days of receiving a request from the Town. The purpose of this meeting will be to discuss and determine the scope of work, existing conditions that should be considered during construction and restoration, and any other factors that may determine or affect the scope of work. Within ten (10) working days of the meeting, Contractor shall provide Owner with a detailed scope of work, detailed cost estimate (including labor, equipment and materials) with supporting documentation, and a schedule for the work. Owner will provide comments or approval for the proposal within five (5) working days of receipt from Contractor. Owner will provide Contractor with a Work Order Authorization and associated purchase order within ten (10) working days of Town's approval of proposal. The Contractor shall notify the Town at least five (5) working days prior to mobilizing to the site to complete the work. Upon mobilization, the Contractor shall diligently work to complete Stormwater Utility Infrastructure repairs or improvements as detailed in their scope of work and schedule. Delays shall be communicated in advance and work scope and schedule revised as needed and approved by the Town.

C. For emergency work orders, the Contractor shall meet with the Town the same day that they are notified of an emergency repair. Within twenty-four (24) hours, the Contractor shall provide an estimated labor, materials and equipment list for the Town's approval. The Town will issue an emergency Work Order authorization and purchase order. Upon the Town's approval, the Contractor shall mobilize to the site within twenty-four (24) hours or to the extent practical to begin repair activities. As the emergency work progresses, the Contractor shall revise and update the scope of work, as needed, for the Town's review and approval.

D. For hurricane and natural disaster related events, the Town will notify the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Town in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Owner's facilities prior to an event and respond to the Owner's facilities immediately following an event. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response not related to Contract Work and will be paid at the labor and equipment rates provided in the LOC.

1.05 FIELD LAYOUT OF WORK

A. All work under this Contract shall be constructed in accordance with the information stipulated by the Contract and provided by the Owner, on drawings, sketches, photographs, and in other written documentation for each Work Order or as modified by the Owner. Elevations of existing ground, structures and appurtenances are believed to be reasonably correct but are not guaranteed to be absolute and therefore are presented only as an approximation. Any error or apparent discrepancy in the data shown or omissions of data required for accurately accomplishing the stake-out survey shall be referred immediately to the Owner for interpretation or correction.

B. All survey work and materials for construction control purposes and record drawings shall be made by the Contractor at his expense and shall be included in the proposal for work order. The Contractor shall establish all base lines for the location of the principal component parts of the work together with bench marks and batter boards adjacent to the work. Based upon the information provided by the sketches and/or drawings, the Contractor shall develop and make all detail surveys necessary for construction. If necessary, the Owner will assist with furnishing information and locations for existing bench marks.

C. The Contractor shall have the responsibility to carefully preserve the bench marks, reference points and stakes. In case of destruction thereof by the Contractor or resulting from his negligence, he shall be held liable for any expense and damage resulting therefrom and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.

D. Existing or new control points, property markers, and monuments that will be established or are destroyed during the normal causes of construction shall be re-established by the Contractor; and all reference ties recorded therefore shall be furnished to the Owner. All computations necessary to establish the exact position of the work shall be made and preserved by the Contractor. Contractor shall review field layout and staking with Owner prior to proceeding with work.

E. Specific Staking Requirements: When performing construction as part of this contract, the Contractor shall set stakes to establish lines and grades for subgrade, base, curb, and related items at intervals along the line of the work no greater than 50 feet on tangents and 25 feet on curves, or as needed for Town's Field Representative to evaluate the proposed improvements.

F. Personnel, Equipment, and Record Requirements: The Contractor shall employ only competent personnel and use only suitable equipment in performing layout work. The Contractor shall not engage the services of any person or persons in the employ of the Owner for performance of layout work. The Contractor shall keep adequate field notes

and records while performing layout work. The Contractor shall make these field notes and records available for the Owner's review as the work progresses, and furnish copies to the Owner at the time of completion of the project. The Owner's inspection, checking, or acceptance of the Contractor's field notes or layout work does not relieve the Contractor of his responsibility to achieve the lines, grades, and dimensions necessary to complete the work properly. Prior to final acceptance of the project, the Contractor shall re-establish in a permanent manner on the surface of the completed work, all existing and new control points, property markers, and monuments.

G. The Owner may check all or any portion of the work including but not limited to sidewalks, curb, subgrade, base, pavement elevations, pipe inverts, basin elevations, and any other areas or items, and the Contractor shall afford all necessary assistance to the Owner in carrying out such checks. Any necessary corrections to the work shall be performed immediately by the Contractor.

1.06 CONTRACTOR USE OF PROJECT SITE

A. The Contractor's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices. Off-site storage of materials will be arranged for by the Contractor and a copy of an agreement for use of other property shall be furnished to the Owner.

1.07 PARTIAL UTILIZATION OF THE WORK BY OWNER

A. The Contractor is hereby advised that the Owner may accept the responsibility for the maintenance and protection of a specific portion of the project if utilized prior to completion. However, the Contractor shall retain full responsibility for satisfactory operation of the total project.

1.08 SITE CONDITIONS

A. The Contractor acknowledges that conditions affecting the work vary, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides, water tables or similar physical conditions at the site, the conditions of the ground, fill, existing improvements, the character of equipment and facilities needed preliminary to and during prosecution of the Work. The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Owner.

B. Contractor is responsible to familiarize himself with each project site and the associated site conditions before submitting a proposal for work order for Owner's consideration. Any conditions that affect Contractor's ability to perform the work in accordance with Town of

Jupiter Utilities and Engineering/Public Works construction standards and details (available on the Town's website www.jupiter.fl.us) shall be included in the proposal for work order.

PART 2 -- PRODUCTS - (Not Used)

PART 3 -- EXECUTION - (Not Used)

– END OF SECTION –

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1. 01 GENERAL

A. Payments to the Contractor shall be made on the basis of the Contract bid items as full and complete payment for furnishing all materials, labor, tools, and equipment and for performing all operations necessary to complete the Work included in the Contract Documents. Such compensation shall also include payments for any loss or damages arising directly or indirectly from the Work, from any discrepancies between the actual quantities of work and those shown in the Contract Documents, or from any unforeseen difficulties which may be encountered during execution of the Work until the final acceptance by the Owner

B. The prices stated in the proposal include all costs and expenses for taxes, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, and labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the Work as shown on the plans and specified herein. The Basis of Payment for an item at the price shown in the Proposal shall be in accordance with its description of the item in this Section and as related to the Work specified and as shown on the Drawings. The unit prices stated in the Contract shall be considered payment in Full for the completion of all work. Payment shall be made under each item only for work as it is not specifically included under other items.

C. Prior to initiation of work, the Contractor shall submit a proposed scope of work to the Owner for review and approval. The scope of work must include a detailed description of work to be performed corresponding to items listed by Task in the Bid Schedule of Values. Upon receipt and approval, the Owner will issue a work authorization to Contractor to begin work. If deviations from this scope of work must occur, the Contractor shall submit a revised proposal with changes clearly outlined prior to the commencement of additional work

D. The quotations prepared by the Contractor for the various items of work are intended to establish a total price for completion of the work in its entirety. Should the contractor feel that the cost for any particular work item has not been established by the Schedule of Payment items or this section, the Contractor shall include the cost for that work in one of the bid items so the proposal for the project reflects the total cost to complete the work in its entirety.

E. The Owner reserves the right to increase or decrease the quantity of any item or portion of the work during the progress of construction in accordance with the terms of the Contract.

F. Payment shall be made for the items listed on the Bid Form on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, equipment, tools, transportation, delivery, disposal of waste and surplus material, and backfilling as described in the work order, and all other appurtenances to complete the construction and installation of the work as described in the work order.

1.02 SUBMITTALS

A. Project Unit Costs and Payment Information:
   1. Work Order Proposals
   2. Application for Payments
   3. Supporting documentation including daily work logs, material invoices, subcontracted services invoices, partial/final release of liens, etc.
   4. Final Application for Payment

B. Submittals shall be in accordance with Section 01300

1.03 APPLICATION FOR PAYMENT

A. Submit application for payment, a listing of materials on hand as applicable, and such supporting data as may be requested by the Owner. Include accepted schedule of values for each portion of work and the unit price breakdown for the work to be paid on a unit price basis, and a listing of Owner selected equipment, if applicable, and allowances, as appropriate

B. Include Owner's Application for Payment Cover Sheet and partial or full releases of liens, as appropriate, for all subcontractors, suppliers, and Contractor.

C. Pay applications shall be prepared and submitted in accordance with Section 01300 and Article 15 of the General Conditions

PART 2 – PRODUCTS

2.01 GENERAL

A. Contractor shall coordinate with Owner for suitable locations to store Owner purchased materials under this Contract. Contractor shall coordinate with Owner and

be responsible to transport Owner furnished materials from the Town's storage facility located at the Town's Emergency Operations Center (EOC) to the job site, if necessary.

B. Costs for Mobilization, Demobilization, Maintenance of Traffic, sediment control/pollution prevention, project record drawings and Contractor General Conditions for individual work orders will be negotiated based on the scope of each work order, and shall not exceed 10% of the sum of the work order line items, excluding this item.

C. For all non-emergency work orders, the contractor will be required to submit a list of additional materials, equipment and services not already included in the Bid Schedule of Values that are required to complete the Town's requested scope of work. The Contractor may be required to obtain prices from up to three (3) vendors for the Town's review. The appropriate mark-up may be utilized by the Contractor as detailed in the General Conditions of the Contract: 15% for materials and equipment and 5% for subcontracted services. The Town may direct purchase the materials or equipment from the lowest vendor as detailed in the Supplementary Conditions of the Contract. In either situation, it will be the Contractor's responsibility to provide material quantities, take receipt of delivery, schedule and all coordination with the vendor.

D. Cost of maintenance of Traffic (MOT) shall be provided within the individual work order proposal with supporting documentation. Allowable markup on sub-contracted MOT is 5%.

2.02 ITEM DESCRIPTIONS

A. **INDEMNIFICATION** (Bid Item No. 1)
In recognition of Contractor's indemnification obligations, the Owner will pay to the Contractor the specific consideration of one hundred dollars ($100.00). Payment of said specific consideration shall be made at the time of the payment of the first Work Order and the Contractor shall acknowledge payment of this consideration by letter to the Owner after receipt of the progress payment.

B. **BONDS AND INSURANCE** (Bid Item No. 2)
The Work included in this Item shall be the actual costs of bonds and any required insurance as outlined in the Contract Documents. Payment of bonds and insurance shall be made on the first Application of Payment of each work order. Contractor shall provide Owner with written documentation from bonding and insurance companies indicating actual costs for bonds and insurance for this project.

C. **4 MAN UNDERGROUND CONSTRUCTION CREW** (Bid Item No. 3)
1. Method of Measurement: The quantity to be paid for under this Section shall be on an hourly basis.

2. Basis of Payment: Payment shall be made at the Contract unit price per hour for the provision of a 4 Man Underground Construction Crew at the direction of the Town to perform miscellaneous utility infrastructure maintenance, repairs, and/or improvements. All work shall be performed in accordance with permitted regulatory agency requirements and meet the appropriate jurisdictional standards which include but are not limited to FDEP, Palm Beach County Health Dept., Town of Jupiter, Palm Beach County, Martin County, and any other permitting entity applicable to the work proposed. This pay item shall include but not be limited to full compensation for furnishing labor consisting of a four (4) man crew which includes foreman/operator, pipe layer and two laborers; minimum equipment consisting of 1-ton pickup truck, pipe saw, plate compactor, 3" trash pump; miscellaneous hand tools and safety equipment necessary to meet regulatory agency requirements. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment. This pay item is an hourly rate charge for a 4 Man Underground Construction Crew during normal working hours. The Owner will track time and approve payment.

D. **OVERTIME FOR 4 MAN UNDERGROUND CONSTRUCTION CREW** (Bid Item No. 4)

1. Method of Measurement: The quantity to be paid for under this Section shall be on an hourly basis.

2. Basis of Payment: Payment shall be made at the Contract unit price per hour for the provision of an overtime, 4 Man Underground Construction Crew at the direction of the Town to perform miscellaneous utility infrastructure maintenance, repairs, and/or improvements. All work shall be performed in accordance with permitted regulatory agency requirements and meet the appropriate jurisdictional standards which include but are not limited to FDEP, Palm Beach County Health Dept., and/or Town of Jupiter, Palm Beach County, Martin County, and any other permitting entity applicable to the proposed work. This pay item shall include but not be limited to full compensation for furnishing labor consisting of a four (4) man crew which includes foreman/operator, pipe layer and two laborers; minimum equipment consisting of 1-ton pickup truck, pipe saw, plate compactor, 3" trash pump; miscellaneous hand tools and safety equipment necessary to meet regulatory agency requirements. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment. This pay item is an hourly rate charge for a 4 Man Underground Construction Crew during overtime working hours. The Owner will track time and approve payment.

E. **COMBINATION BACKHOE LOADER WITH OPERATOR** (Bid Item No. 5)

1. Method of Measurement: The quantity to be paid for under this Section shall be on an hourly basis for the actual time the combination backhoe loader with Operator is in use for the intended scope of work as agreed to in writing between Contractor and Owner. The Owner will track time and approve payment. Measurement of this item shall not include travel time for the excavator or operator to and from the site.

2. Basis of Payment: Payment shall be made at the Contract unit price per hour for the provision of a Combination Backhoe Loader which is a supplement to the 4 Man Underground Construction Crew bid item. This pay item shall include, but not be limited to, full compensation for providing a Caterpillar 461E Backhoe Loader (or equivalent size machine) to the work order site for a specified period of time and include all costs associated with delivery, pickup, maintenance, operation (including operator), insurance, and any other miscellaneous costs or fees associated with providing a safe working machine as designed by the manufacturer. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment.

F. **HYDRAULIC EXCAVATOR WITH OPERATOR** (Bid Item No. 6)

1. Method of Measurement: The quantity to be paid for under this Section shall be on an hourly basis for the actual time the excavator with Operator is in use for the intended scope of work as agreed to in writing between Contractor and Owner. The Owner will track time and approve payment. Measurement of this item shall not include travel time for the excavator or operator to and from the site.

2. Basis of Payment: Payment shall be made at the Contract unit price per hour for the provision and operation of a Hydraulic Excavator which is a supplement to the 4 Man Underground Construction Crew bid item. This pay item shall include, but not be limited to, full compensation for providing a Caterpillar 315D Hydraulic Excavator (or equivalent size machine) to the work order site for a specified period of time and include all costs associated with delivery, pickup, maintenance, operation (including operator), insurance, and any other miscellaneous costs or fees associated with providing a safe working machine as designed by the manufacturer. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment.

G. **DUMP TRUCK WITH OPERATOR** (Bid Item No. 7)

1. Method of Measurement: The quantity to be paid for under this Section shall be on an hourly basis for the actual time the dump truck with Operator is in use for the intended scope of work as agreed to in writing between Contractor and Owner. The Owner will track time and approve payment. Measurement of this item shall not include travel time for the dump truck or operator to and from the site.

2. Basis of Payment: Payment shall be made at the Contract unit price per hour for the provision and operation of a dump truck which is a supplement to the 4 Man Underground Construction Crew bid item. This pay item shall include, but not be limited to, full compensation for providing a 20-yard dump truck to the work order site for a specified period of time and include all costs associated with delivery, pickup, maintenance, operation (including operator), insurance, and any other miscellaneous costs or fees associated with providing a safe working machine as designed by the manufacturer. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment.

H. **DEWATERING WITH 4" HYDRAULIC PUMP** (Bid Item No. 8)

1. Method of Measurement: The quantity to be paid for under this Section shall be on an hourly basis for the actual time the 4" hydraulic pump is in operation for the intended scope of work as agreed to between Contractor and Owner. The Owner will track time and approve payment. Measurement of this pay item will not include the time required to mobilize, set up and remove the pump and associated equipment to/from the job site.

2. Basis of Payment: Payment shall be made at the Contract unit price per hour for the provision and operation of a 4" Hydraulic Pump which is a supplement to the 4 Man Underground Construction Crew bid item. This pay item shall include, but not be limited to, full compensation for labor, equipment, and material such as providing pump and associated equipment, fuel, maintenance, suction and discharge piping, disposal of pump discharge, dewatering permits and any other costs associated with dewatering using a 4" hydraulic pump to assist in removing groundwater from the excavation area to an acceptable discharge location. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment. Contractor shall include costs associated with dewatering with anything smaller than a 4" hydraulic pump in the 4 Man Underground Construction Crew pay item. If a 4" hydraulic pump

does not provide adequate dewatering, in the opinion of the Owner, then Contractor shall dewater by well point. Owner will not pay costs associated with this Pay Item if dewatering with 4" hydraulic pump is not adequate, or efficient. Owner will not direct Contractor in what type of dewatering to use. This pay item is an hourly rate charge for the 4" Hydraulic Pump.

I. **DEWATERING WITH WELL POINTS** (Bid Item No. 9)

1. Method of Measurement: The quantity to be paid for under this Section shall be on a daily basis for the actual time the well point dewatering system is in operation for the intended scope of work as agreed to in writing between Contractor and Owner. The Owner will track time and approve payment. Measurement of this item will not include the time to mobilize, set up and remove the well point dewatering system to/from the job site.

2. Basis of Payment: Payment shall be made at the Contract unit price per 24 hour-day (24 hr.) for the provision of a well point system complete with suction/discharge piping and vacuum pump which is a supplement to the 4 Man Underground Construction Crew bid item. This pay item shall include, but not be limited to, full compensation for labor, equipment, and material for a complete well point dewatering system including but not limited to fuel, maintenance, suction and discharge piping, manifold header piping, dewatering permits, permitting pump discharge, disposal of pump discharge and any other costs associated with dewatering using a well point system to assist in removing groundwater from the excavation area to an acceptable discharge location. Any time charged under this line item must be specifically approved in writing by the Owner, including a mutually agreed upon start date and duration in hours. Any time charged by the Contractor without the Owner's prior written approval under this pay item will not be approved for payment. This pay item is an hourly rate charge for Dewatering with Well Points. If Contractor has not provided a well point dewatering system adequate to allow for repairs and/or installation of the infrastructure in accordance with Town or other applicable entity standards, Owner will not pay costs associated with this Pay Item until the Contractor has corrected the system to function properly and efficiently.

J. **Asphalt Road Repair** (Bid Item No. 10)

1. Method of Measurement: The quantity paid for under this item shall be per square yard of asphalt furnished, placed and accepted.

2. Basis of Payment: The Contract Unit Price shall include full compensation for all labor, materials, and equipment necessary for asphalt repair and shall include, but not be limited to, excavation associated with subgrade preparation, base placement, grading, compaction, asphalt, placement and all other incidentals required to perform the asphalt repair in accordance with construction

standards of the Town of Jupiter or other regulatory agency having jurisdiction over the road on which the asphalt repairs are being made and the Contract Documents.

K. **Asphalt Driveway Apron** (Bid Item No. 11)

1. Method of Measurement: The quantity paid for under this item shall be per square yard of asphalt furnished, placed and accepted to replace/repair existing asphalt driveway aprons as needed to facilitate the Work of this Contract.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary for driveway apron replacement/repair including but not limited to, excavation of existing asphalt, disposal of excavated materials, grading to accommodate Owner desired drainage patterns (swale cross section/roadway longitudinal slopes), subgrade preparation, base placement, compaction, asphalt, placement, and all other incidentals required to perform the Work in accordance with construction standards of the Town of Jupiter or other regulatory agency having jurisdiction over the road on which the asphalt repairs are being made and the Contract Documents. Payment does not include repair associated with damage caused by Contractor's negligence or carelessness which will be the Contractor's responsibility.

L. **Concrete Driveway Apron** (Bid Item No. 12)

1. Method of Measurement: The quantity paid for under this item shall be per square yard of concrete furnished, placed and accepted to replace/repair existing concrete driveway aprons as needed to facilitate Work performed under this Contract.
2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary for concrete driveway apron replacements including, but not limited to excavation and disposal of existing concrete apron, concrete cutting, grading to accommodate Owner desired drainage patterns (swale cross section/roadway longitudinal slopes), subgrade preparation, compaction, forms, reinforcing, concrete, placement, finishing, curing, protection, and all other incidentals as needed to perform the Work in accordance with construction standards of the Town of Jupiter or other regulatory agency having jurisdiction over the road on which the replacement/repairs are being made and the Contract Documents. Payment does not include repair associated with damage caused by Contractor's negligence or carelessness which will be the Contractor's responsibility. This pay item also does not include costs associated with stamped or painted concrete. If stamped or painted concrete is needed, Owner will request a price from Contractor.

M. **Paver Driveway Repair** (Bid Item No. 13)

1. Method of Measurement: The quantity paid for under this item shall be per square foot of paver driveway repair performed and accepted as needed to facilitate Work performed under this Contract.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary for paver driveway repairs including, but not limited to removal of existing pavers, replacement of broken pavers, grading to accommodate Owner desired drainage patterns (swale cross section/roadway longitudinal slopes), subgrade preparation, compaction, sand, pavers and all other incidentals as needed to perform the Work in accordance with construction standards of the Town of Jupiter or other regulatory agency having jurisdiction over the road on which the Work is done and the Contract Documents. Payment does not include repair associated with damage caused by Contractor's negligence or carelessness which will be the Contractor's responsibility. This pay item also does not include sealing the pavers. If existing pavers are sealed, Owner will request a price from Contractor.

N. **Concrete Sidewalk** (Bid Item No. 14)

1. Method of Measurement: The quantity paid for under this item shall be per square yard of concrete sidewalk repaired/replaced and accepted.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary to perform sidewalk repair/replacement including, but not be limited to, demolition of existing concrete sidewalk, concrete cutting, disposal of demolished concrete, preparation of subgrade, forms, reinforcement, grading (to meet ADA requirements as applicable), compaction, concrete, placement, finishing, tactile surface (where applicable) in accordance with construction standards of the Town of Jupiter or other regulatory agency having jurisdiction over the area of the Work and the Contract Documents.

O. **Valley Curb** (Bid item No. 15)

1. Method of Measurement: The quantity paid for under this item shall be per linear foot of concrete valley curb repair/replaced and accepted.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary to repair/replace concrete valley curb and shall include, but not be limited to, demolition of existing curb, disposal, concrete cutting, forming, reinforcing, grading, compaction, concrete, placement, finishing and all other incidentals necessary to complete the Work in accordance with construction standards of the Town of Jupiter or other regulatory agency having jurisdiction of the road on which the curb exists and the Contract Documents.

P. **Type "D" Curb** (Bid Item No. 16)

1. Method of Measurement: The quantity paid for under this item shall be per linear foot of concrete Type D curb repair/replaced and accepted.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary to repair/replace concrete curb and shall include, but not be limited to, demolition of existing curb, disposal, concrete cutting, forming, reinforcing, grading, compaction, concrete, placement, finishing and all other incidentals necessary to complete the Work in accordance with construction standards of the Town of Jupiter or other regulatory agency having jurisdiction of the road on which the curb exists and the Contract Documents.

Q. **Bahia Sod** (Bid Item No. 17)

1. Method of Measurement: The quantity paid for under this item shall be per square yard of sod placed and accepted.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary to repair/replace sod and shall include, but not be limited to, scrapping and removal of existing sod, disposal, grading to accommodate Owner desired drainage patterns (swale cross section/roadway longitudinal slopes), top soil, sod, placement, pinning (as needed on slopes), watering, fertilizer, establishment of healthy sod, and all other incidentals necessary to complete the Work in accordance with the standards of the Town of Jupiter and the Contract Documents and the Contract Documents.

R. **Saint Augustine Sod** (Bid Item No. 18)

1. Method of Measurement: The quantity paid for under this item shall be per square yard of sod placed and accepted.

2. Basis of Payment: The Contract Unit Price shall include all labor, materials, and equipment necessary to repair/replace sod and shall include, but not be limited to, scrapping and removal of existing sod, disposal, grading to accommodate Owner desired drainage patterns (swale cross section/roadway longitudinal slopes), top soil, sod, placement, pinning (as needed on slopes), watering, establishment of healthy sod, and all other incidentals necessary to complete the Work in accordance with the standards of the Town of Jupiter and the Contract Documents and the Contract Documents.

– END OF SECTION –

SECTION 01030 (REVISED ADDENDUM 1)

HURRICANE PREPAREDNESS

PART 1 – GENERAL

1.01 GENERAL

A. The Contractor's attention is drawn to the possibility of hurricane or severe storm conditions occurring at the site of work during the course of Contract Work.

B. Within fourteen (14) days of the date of the Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan specific to this project. The plan should outline the necessary measures which the Contractor proposes to perform related to Contract Work at no additional cost to the Owner in case of a hurricane or severe weather warning.

C. The Contractor shall also include a Letter of Commitment (LOC) with the Hurricane Preparedness Plan. The LOC shall detail the Contractor's ability to be available on an as-needed, on-call basis for hurricane or natural disaster events along with emergency labor and equipment rates. The LOC and emergency response activities shall be for work related to hurricane or natural disaster preparations prior to the event and/or recovery activities immediately following the event that are outside of and in addition to Contract Work.

D. In the event of inclement weather, or whenever the Owner shall direct, the Contractor shall, and will, cause Subcontractors to protect carefully the Work and all materials and equipment from experiencing damage or causing injury by extreme weather. Work and materials damaged shall be removed and replaced at the expense of the Contractor.

1. Hurricane Watch: Upon designation of a hurricane watch, the Contractor shall be responsible for removing all loose supplies and equipment from the job site that may pose a danger. Contractor may provide the Owner with alternatives to removing the equipment and materials from the site, provided that the methods are reasonable considering the impending threat of storm. The Owner does not need to approve the alternative method should he feel it is not in the best interest of the Town. In addition, the Contractor shall remove all bulkheads and plugs in pipelines that would impede drainage in the case of flooding. Structures that may be in danger of floatation shall be flooded. The Contractor shall also cooperate with the Owner in protecting any other structures at the site from receiving poor quality runoff resulting from activities.

2. Hurricane Warning: No mobile "temporary facility" shall be staffed during a hurricane warning. Contractor facilities meeting these criteria shall be evacuated. Reasonable steps shall be taken to protect all such facilities and their contents from damage and to avoid the facility from causing damage to the surroundings.

E. The Contractor may be required to backfill excavations depending on the severity of the approaching storm or the expected amount of rainfall. Additionally, erosion protection and inlet protection will be required depending on the site conditions at the time of the Hurricane Watch.

F. Contractor shall be responsible to securely tie down large items and remove small lighter items from the job site upon notification to do so by the Owner. Equipment with booms or high rise pieces shall be lowered and secured.

G. In the event of a hurricane or natural disaster, the Owner will notify the Contractor if their emergency response services, as detailed in their LOC, are required to assist the Owner in preparation for or recovery from a hurricane or natural disaster. The Contractor shall be prepared to stage equipment at the Owner's facilities prior to an event and respond to the Owner's facilities immediately following an event. The Town will be responsible for costs incurred by the Contractor for hurricane or natural disaster response not related to Contract Work and will be paid at the labor and equipment rates provided in the LOC.

- END OF SECTION -

SECTION 01090

REFERENCE STANDARDS

PART 1 – GENERAL

1.01 GENERAL

A. Titles of Sections and Paragraphs: Captions accompanying specification sections and paragraphs are for convenience of reference only, and do not form a part of the Specifications.

B. Applicable Publications: Whenever in these Specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date of the opening of bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the Drawings shall be waived because of any provision of, or omission from, said standards or requirements.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Without limiting the generality of other requirements of the specifications, all work specified herein shall conform to or exceed the requirements of all applicable codes and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of these Specifications nor the applicable codes.

B. References herein to "Building Code" shall mean the Florida Building Code. The latest edition of the code as approved and used by the local agency as of the date of award, as adopted by the agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.

C. In case of conflict between codes, reference standards, Drawings and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.

D. Applicable Standard Specifications: The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portions of those referenced codes, standards, and Specifications listed herein.

E. References herein to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

F. References herein to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

1.03 ABBREVIATIONS AND ACRONYMS

A. Wherever in these specifications references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user of these specifications, the following acronyms or abbreviations which may appear in these specifications shall have the meanings indicated herein.

AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of the State Highway and Transportation Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AFBMA	Anti-Friction Bearing Manufacturer's Association, Inc.
AGMA	American Gear Manufacturer's Association
AHGDA	American Hot Dip Galvanizers Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
API	American Petroleum Institute
APHA	American Public Health Association
APWA	American Public Works Association
ASA	Acoustical Society of America
ASAE	American Society of Agriculture Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers
ASMM	Architectural Sheet Metal Manual
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials

AWPA	American Wood Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturer's Association
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
DIPRA	Ductile Iron Pipe Research Association
EIA	Electronic Industries Association
ETL	Electrical Test Laboratories
FBC	Florida Building Code
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FS	Federal Specifications
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
ISO	International Organization for Standardization
MBMA	Metal Building Manufacturer's Association
MTI	Marine Testing Institute
NAAM	National Association of Architectural Metal Manufacturer's
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NRCA	National Roofing Contractors Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
SMACCNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Construction
SFWMD	South Florida Water Management District
UL	Underwriters Laboratories, Inc.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not used)

– END OF SECTION –

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SECTION 01200

PROJECT MEETINGS

PART 1 – GENERAL

1.01 PRECONSTRUCTION

A. Upon Execution of Contracts, Owner will schedule a pre-work meeting with Contractor to cover such subjects as contract administration, upcoming work projects, permits and licenses, process for issuance of work orders and application for payments, shop drawings and submittals, material procurement, delivery and storage, Owner's field inspections, field materials testing, project site cleanliness, and other appropriate matters. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established.

B. Prior to the issuance of each work order Contractor and Owner shall visit the site for the purpose of discussing and determining the detailed scope of work, existing conditions that should be considered during construction and restoration, permits needed to complete the work, and any other factors that may determine or affect the scope of work. Within ten (10) days of the meeting, Contractor shall provide Owner with a detailed scope of work, detailed cost estimate (including labor, equipment and materials) with supporting documentation, and a schedule for the work. Owner will provide comments or approval for the proposal within five (5) working days of receipt from Contractor. Owner will provide Contractor with a Work Order Authorization and associated purchase order within ten (10) working days of Town's approval of proposal.

C. Prior to the commencement of a project for which a Work Order has been issued, a preconstruction conference will be held at a mutually agreed time and place which shall be attended by the Contractor, Contractor's superintendent, and any subcontractors as appropriate. Other attendees will include:
   1. Representatives of Owner.
   2. Governmental representatives as appropriate.
   3. Others as requested by Contractor or Owner.

1.02 PROGRESS

A. The Owner will schedule progress meetings as considered necessary by the Owner to assure effective execution of this Contract. The Contractor, Owner, and all subcontractors active on the site shall be represented at each meeting. Contractor may at its discretion request attendance by representatives of its suppliers, manufacturers, and other subcontractors.

B. Progress meetings will be managed by the Owner. Meeting minutes will be recorded by the Owner at each progress meeting to document items discussed, and later distributed to all meeting attendees. The purpose of the meetings will be to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

C. In addition, the Owner or Contractor may call for special job site meetings for the purpose of resolving unforeseen problems or conflicts which may affect the construction schedule. The Owner will prepare a brief summary report of the decisions or understandings concerning each of the items discussed at the meeting. The Owner may request the attendance of sudcontractors and Owner's consultants at these meetings.

D. At progress meetings, the Contractor shall submit to the Owner for review a current progress schedule. This schedule submission shall include a look ahead schedule and reflect the status of the Work performed to date.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01300

SUBMITTALS

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. This section provides an overview of the submittals expected during the course of the Contract. All submittals, whether their final destination is the Owner or other representatives of the Owner, shall be directed through the Owner. This list is not all inclusive, the Owner, permitting agencies or other specifications throughout this Contract may require additional submittals. Following is a general summary of the types of submittals expected:

- Progress Schedule
- Schedule of Submittals
- Schedule of Values
- Applications for Payment
- 24 Hr. Emergency Contact List
- Shop Drawings and Product Data
- Product Samples
- Daily Work Logs
- Certificates of Compliance
- Warranties

B. Prior to mobilization to complete a project authorized by a work order, Contractor shall transmit the appropriate submittals to the Owner for review and approval. Submittals may be made in electronic format to Owner.

1.02 SUBMITTAL PROCEDURES

A. Transmit each submittal with a form acceptable to the Owner, clearly identifying the project and the Contractor, the enclosed material and other pertinent information specified in other parts of this section. Identify variations between Contract Documents and Product. Identify system limitations which may be detrimental to successful performance of the completed Work.

B. Revise and resubmit submittals as required, identify all changes made since previous submittals. Resubmittals shall be noted as such.

C. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

PART 2 – PRODUCTS

2.01 CONSTRUCTION SCHEDULE

A. A construction schedule shall be prepared for each work order authorized and issued by the Owner showing in detail the proposed sequence of the work and identifying construction activities for each major component, structure or facility. The schedule shall be time scaled, with the estimated start date and completion date of each stage of the work to completion of the work order.

B. The construction schedule shall be revised to reflect comments by the Owner and returned to Owner in a timely manner.

C. Updates to the schedule shall be provided by Contractor to Owner when requested and as often as the schedule changes regardless of the reason for the change. Contractor shall ensure that the Construction Progress Schedule is current and accurate, and is properly and timely monitored, updated, and revised as project conditions and the Contract may require.

D. Contractor is responsible for determining the sequence of activities, the time estimates of the detailed construction activities, and the means, methods, techniques, and procedures to be employed. The Construction Progress Schedules shall represent the Contractor's best judgment of how he will execute the Work in compliance with the Contract requirements. The Owner may require a certain order in which activities should be sequenced to minimize disruption of outside contract activities with Town of Jupiter staff, consultants, contractors, businesses and residents. In this case the Contractor shall determine the sequence of activities based upon the Owner's requirements.

2.02 SCHEDULE OF SUBMITTALS

A. A Submittal Schedule shall be provided by the CONTRACTOR within 10 (ten) days of the Notice to Proceed. This schedule shall be in the form of a MS Excel Files (Version 2010 or later) and outline preconstruction submittals, shop drawings and product data, product samples and any other submittals required in the contract.

B. The format of the Submittal Schedule shall include, at a minimum, the following for each item:

1. Date submitted to Town
2. Specification Section, Page and Paragraph
3. Submittal Description

4. Action:
    i. Approved as Submitted
    ii. Approved as Noted
    iii. Approved as Noted Re-Submit
    iv. Rejected Re-Submit
    v. Corrections Noted Re-Submit

5. Date returned to Contractor

C. The Submittal Schedule shall be updated with each submittal

2.03 SCHEDULE OF VALUES

A. The Contractor shall submit a Schedule of Values for Owner's approval in accordance with Section 01025 entitled "Measurement and Payment" which shall include all items in the bid proposal including those items which are identified as lump sum. The lump sum items shall be broken down into component parts for the purpose of tracking monthly progress of the work and making monthly progress payments. The schedule shall contain the installed value of the component parts of Work for the purpose of making progress payments during the construction period.

B. The schedule shall be given in sufficient detail for the proper identification of the Work accomplished. Each item shall include its proportional share of all costs including the Contractor's overhead, contingencies, and profit. The sum of all scheduled items shall equal the total value of the Contract. The sum of the component parts shall equal the lump sum price of the lump sum item in the bid form.

C. The Contractor shall expand or modify the above schedule and materials listing as required by the OWNER's initial or subsequent reviews.

2.04 PAYMENT APPLICATIONS

A. Procedures for preparation and submittal of Applications for Payment must be in accordance with Article 15 of the General Conditions. Payment applications may be submitted electronically

B. Each Application for Payment must include a completed and executed Town of Jupiter Application for Payment cover sheet and supporting documentation. Supporting documentation includes approved work order schedule of values and unit pricing, material invoices, partial/full release of liens, Contractor daily work logs, etc. The Contractor may include AIA G702 – Application and Certificate for Payment and AIA G703 – Continuation Sheets

C. No payment will be made for materials stored under this Contract. If purchased by Contractor, materials will not be paid for by Owner until incorporated into the Work.

D. Progress payments shall be paid in accordance with Article 5 of the Contract and Articles 2 and 15 of the General Conditions, and will be on the basis of the progress of Work completed, to date. Prior to 50% Completion of the work, retainage in the amount of ten percent (10%) will be held on each work order. Upon 50% completion of work, retainage may be reduced to five percent (5%). Upon final completion and acceptance of work for an individual work order, final payment including retainage for that work order will be released in full.

2.05 24 HOUR EMERGENCY CONTACT LIST

A. The Contractor shall be required to provide emergency contact telephone numbers for this project. A minimum of two 24 hour contact telephone numbers are required including a 24 hour contact for MOT maintenance if there is an overnight maintenance of Traffic plan in place. Telephone numbers are required for the following Contract positions:

1. Project Manager
2. Project Superintendent
3. Maintenance of Traffic Supervisor (24 Hr)

B. The Town must have two (2) 24-hour contact telephone numbers, one which includes either the Project Manager or Project Superintendent

C. The 24-hour contact list may be revised or updated, as needed, as the Contractor completes projects associated with individual work order authorizations

2.06 SHOP DRAWINGS

A. General: The Contractor shall submit for review shop drawings for concrete, reinforcement, structural details, structures, pipe, adapters, couplings, grout, road rock, asphalt, tack/prime coat, and all other materials to be incorporated into the Work of this Contract and as specifically requested by the Owner.

B. Shop drawings shall show the principal dimensions, weight, elevations, structural and operating features, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the Work.

C. When so specified, or if considered by the Owner to be acceptable, the manufacturer's specifications, catalog data, descriptive matter, illustrations, etc., may be submitted for review in place of shop drawings. In such case, the requirements shall be as specified for shop drawings, insofar as applicable.

D. The Contractor shall be responsible for the prompt submittal of all shop drawings so that there shall be no delay to the Work due to the absence of such Drawings. The Owner will review the shop drawings within 14 calendar days of receipt of such Drawings from Contractor. Reviewed shop drawings will be returned to the Contractor within 14 days of receipt.

E. Time delays caused by rejection of submittals are not cause for extra charges to the Owner or time extensions.

F. Requirements: All shop drawings shall be submitted to the Owner through the Contractor. The Contractor is responsible for obtaining shop drawings from his subcontractors and returning reviewed Drawings to them. All Drawings shall be clearly marked with the name of the project, Owner, Contractor, Contract and Work Order number, and structure to which the drawing applies. Drawings shall be suitably numbered and stamped by the Contractor as having been reviewed by the Contractor prior to submittal to the Owner. Submittals made without Contractor's stamp of review will be returned to Contractor not reviewed by Owner. Each submittal shall be accompanied by a letter of transmittal giving a list of the submittal numbers and names included.

G. Product Data: Where manufacturer's publications in the form of catalogs, brochures, illustrations, or other data sheets are submitted in lieu of prepared shop drawings, such submission shall specifically indicate the particular item offered. Identification of such items and relative pertinent information shall be made with indelible ink. Submissions showing only general information will not be accepted.

H. Product data shall include materials of construction, dimensions, performance characteristics and capacities, etc.

I. Sample Warranties: When warranties are called for, a sample of the warranty shall be submitted with the shop drawings. The sample warranty shall be the same form that will be used for the actual warranty.

J. Work Prior to Review: No material or equipment shall be purchased, fabricated especially for this Contract and Work Order, or delivered to the project site until the required shop drawings have been submitted, processed and marked either "APPROVED AS SUBMITTED" or "APPROVED AS NOTED". All materials incorporated into the Work shall be as represented by approved submittals.

K. The Contractor shall not proceed with any portion of the Work for which the design and details are dependent upon the design and details of equipment for which submittal review has not been completed.

L. Contractor's Review: Contractor shall thoroughly review all submittals received from suppliers, vendors, and subcontractors for accuracy and correctness prior to submitting

them to the Owner for review. Contractor shall indicate his review of the submittals with the date, reviewer's name and indications of the Contractor's approval.

M. Contractor's Responsibility: The Owner's review of shop drawings will be general and shall not relieve the Contractor of the responsibility for details of design, dimensions, etc., necessary for proper fitting and construction of the Work required by the Contract and for achieving the specified performance.

N. Contractor's Modifications: For submissions containing departures from the Contract Documents, the Contractor shall include proper explanation in his letter of transmittal. Should the Contractor submit for review equipment that requires modifications to the structures, piping, layout, etc. detailed on the Drawings, he shall also submit for review details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do all Work necessary to make such modifications.

O. Substitutions: Whenever a particular brand or make of material, equipment, or other item is specified, or is indicated on the Drawings, it is for the purpose of establishing a standard of quality, design, and type desired and to supplement the detailed specifications. Any other brand or make which, in the opinion of the Owner, is equivalent to that specified or indicated may be offered as a substitute subject to the following provisions:

1. Contractor shall submit for each proposed substitution sufficient details, complete descriptive literature, and performance data together with samples of the materials, where feasible, to enable the Owner to determine if the proposed substitution is equal.

2. Contractor shall submit certified tests, where applicable, by an independent laboratory attesting that the proposed substitution is equal.

3. A list of installations where the proposed substitution is equal.

4. Where the acceptance of a substitution requires revision or redesign of any part of the Work, all such revision and redesign, and all new Drawings and details required therefore, shall be provided by the Contractor at his own cost and expense, and shall be subject to review of the Owner.

5. In all cases the Owner shall be the sole judge as to whether a proposed substitution is to be accepted. The Contractor shall abide by the Owner's decision when proposed substitute items are judged to be unacceptable and shall in such instances furnish the item, or substitute, as specified. No substitute items shall be used in the Work without written acceptance of the Owner.

6. Acceptance of any proposed substitution shall in no way release the Contractor from any of the provisions of the Contract Documents.

P. Complete Submittals: Each submittal shall be complete in all aspects incorporating all information and data required to evaluate the products' compliance with the Contract Documents. Partial or incomplete submissions shall be returned to the Contractor without review.

2.07 PRODUCT SAMPLES

A. Contractor shall furnish for review all product samples as required by the Contract Documents or requested by the Owner to determine compliance with the specifications.

B. Samples shall be of sufficient size or quantity to clearly illustrate the quality, type, range of color, finish or texture and shall be properly labeled to show complete project identification, the nature of the material, trade name of manufacturer and location of the Work where the material represented by the sample will be used.

C. Samples shall be checked by the Contractor for conformance to the Contract Documents before being submitted to the Owner and shall bear the Contractor's stamp certifying that they have been so checked. Transportation charges on samples submitted to the Owner shall be prepaid by the Contractor.

D. Owner's review will be for compliance with the Contract Documents, and his comments will be transmitted to the Contractor with reasonable promptness.

E. Acceptable samples will establish the standards by which the completed Work will be judged.

2.08 DAILY WORK LOGS

A. On a daily basis, the Contractor shall document work activities, number of workers onsite, time onsite and equipment used on Daily Work Log. Copies shall be submitted to the Owner at the end of each work week. Daily Work Logs may be requested by the Owner for viewing at any time.

B. Daily work logs shall be submitted with each application for payment as documentation for the quantities requested under various work items included in the Bid Schedule of Values

2.09 CERTIFICATES OF COMPLIANCE

A. Copies of certificates of compliance and test reports shall be submitted for requested items to the Owner prior to request for payment.

2.10 WARRANTIES

A. Original warranties, called for in the Contract Documents, shall be submitted to the Owner through the Contractor. When warranties are required for an item, warranty shall be submitted prior to request for payment of that item.

B. When warranties are requested, a sample of the warranty to be provided shall be submitted with, and considered part of, the shop drawings.

C. The Contractor shall warrant to the Owner that all material and labor used in the construction are covered by his warrantee for a minimum of a one-year period upon approval and acceptance by the Owner. The Contractor shall replace or repair defects at no cost to the Owner during the warrantee period. No visible or potential leakage shall be allowed during the warrantee period.

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01400

QUALITY CONTROL

PART 1 – GENERAL

1.01 QUALITY ASSURANCE

A. Quality: All materials shall be new and correctly designed, and shall conform to the requirements of Section 01090, "Reference Standards" and Section 01600, "Materials". They shall be standard first-grade quality produced by expert workmen and be intended for the use for which they are offered. Materials which, in the opinion of the Owner, are inferior or of a lower grade than indicated, specified or required will not be acceptable.

B. Source Limitations: To the greatest extent possible for each unit of Work, the Contractor shall provide products, materials, or equipment of a singular generic kind from a single source.

C. Compatibility of Options: Where more than one choice is available as options for Contractor's selection of a product, material, or equipment, the Contractor shall select an option which is compatible with other products and materials already selected. Compatibility is a basic general requirement of product/material selections.

1.02 PRODUCT EVALUATION

A. The Owner will employ and pay for the services of an independent testing laboratory for specified testing as specified by the Owner.

B. The work or actions of the testing laboratory shall in no way relieve the Contractor of his obligations under the Contract. The laboratory testing work will include such inspections and testing required by the Contract Documents, existing laws, codes, ordinances, etc. The testing laboratory will have no authority to change the requirements of the Contract Documents, nor perform, accept or approve any of the Contractor's Work.

C. The Contractor shall allow the Owner ample time and opportunity for evaluation and testing materials to be used in the Work. The Contractor shall advise the Owner promptly upon placing orders for materials so that arrangements may be made, if desired, for evaluation before shipment from the place of manufacture. The Contractor shall at all times furnish the Owner and his representatives, facilities including labor, and allow proper time for evaluation and testing materials, and workmanship. The Contractor must anticipate that possible delays may occur in the execution of its work due to the necessity of materials being inspected and accepted for use. The Contractor shall furnish, at his own expense, all samples of materials required by the Owner for testing, and shall make his own

arrangements for providing water, electric power, or fuel for the various evaluation and tests of structures and materials.

D. The Owner will bear the cost of all tests, evaluation, or investigations undertaken by the order of the Owner for the purpose of determining conformance with the Contract Documents if such tests, evaluation, or investigations are not specifically required by the Contract Documents, and if conformance is ascertained thereby. Whenever nonconformance is determined by the Owner as a result of such tests, evaluation, or investigations, the Contractor shall bear the full cost of any additional tests, evaluations and investigations, which are ordered by the Owner to ascertain subsequent conformance with the Contract Documents.

1.03 EVALUATION AT PLACE OF MANUFACTURE

A. Unless otherwise specified, all products and materials shall be subject to evaluation by the Owner at the place of manufacture.

B. The presence of the Owner at the place of manufacture however, shall not relieve the Contractor of the responsibility for furnishing products, materials, and equipment which comply with all requirements of the Contract Documents. Compliance is a duty of the Contractor, and said duty shall not be avoided by any act or omission on the part of the Owner.

1.04 SAMPLING AND TESTING

A. Unless otherwise specified, all sampling and testing shall be in accordance with the methods prescribed in the current standards of the ASTM, as applicable to the class and nature of the article or materials considered; however, the Owner reserves the right to use any generally-accepted system of sampling and testing which, in the opinion of the Owner will insure the Owner that the quality of the workmanship is in full accord with the Contract Documents.

B. Any waiver by the Owner of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bond to assure execution of any necessary corrective or remedial Work, shall not be construed as a waiver of any requirements of the Contract Documents.

C. Notwithstanding the existence of such waiver, the Owner reserves the right to make independent investigations and tests and failure of any portion of the Work to meet any of the requirements of the Contract Documents, shall be reasonable cause for the Owner to require the removal or correction and reconstruction of any such work in accordance with the General Conditions.

D. In addition to any other evaluation, observation or quality assurance provisions that may be specified, the Owner shall have the right to independently select, test, and analyze, at the expense of the Owner, additional test specimens or any or all of the materials to be used. Results of such tests and analyses shall be considered along with the tests or analyses made by the Contractor to determine compliance with the applicable specifications for the materials so tested or analyzed; provided, that testing or investigation by the Owner, which fails to meet the requirements of the Contract Documents, all costs of such independent inspection and investigation, and all costs of removal, correction, and reconstruction or repair of any such Work shall be borne by the Contractor.

1.05 SITE INVESTIGATION AND CONTROL

A. The Contractor shall verify all dimensions in the field and shall check field conditions continuously during construction. The Contractor shall be solely responsible for any inaccuracies built into the Work due to its failure to comply with this requirement.

B. The Contractor shall inspect related and appurtenant Work and shall report in writing to the Owner any conditions which will prevent proper completion of the Work. Failure to report any such conditions shall constitute acceptance of all site conditions, and any required removal, repair, or replacement caused by unsuitable conditions shall be performed by the Contractor at its sole cost and expense.

1.06 RIGHT OF REJECTION

A. The Owner shall have the right, at all times and places, to reject any articles or materials to be furnished hereunder which, in any respect, fail to meet the requirements of the Contract Documents, regardless of whether the defects in such articles or materials are detected at the point of manufacture or after completion of the Work at the site. If the Owner, through an oversight or otherwise, has accepted materials or Work which is defective or which is contrary to the Contract Documents, such materials, no matter in what stage or condition of manufacture, delivery, or erection, may be subsequently rejected by the Owner.

B. The Contractor shall promptly remove rejected articles or materials from the site of the Work after notification of rejection. All costs of removal and replacement of rejected articles or materials as specified herein shall be borne by the Contractor.

1.07 WATER TIGHTNESS OF STRUCTURES

A. It is the intent of these specifications that all concrete work, sealing work around built-in items and penetrations be performed as required to ensure that groundwater and/or rainwater will not leak into any repaired collection line, service lateral, manhole, or other type structure.

B. The required water tightness shall be achieved by quality construction and proper sealing of all pipes and manholes.

C. The Contractor shall provide at its own expense all labor, material, temporary bulkheads, pumps, water, measuring devices, plugs, etc., necessary to perform the required tests.

1.08 HYDRAULIC UPLIFT ON STRUCTURES

A. The Contractor shall be completely responsible for any pipelines, inlets or manholes that may become buoyant during the construction operations due to the groundwater or floods and before the structure is put into operation. Should there be any possibility of buoyancy of a structure the Contractor shall take the necessary steps to prevent its buoyancy. Damage to any structures due to floating or flooding shall be repaired or the structures replaced at the Contractor's expense.

1.09 CUTTING AND PATCHING

A. The Contractor shall perform all cutting and patching of the Work that may be required to make its several parts come together properly and fit it to receive or be received by such other work. The Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and shall only cut or alter work with the written consent of the Owner and of the other contractors whose work will be affected.

1.10 REMOVAL OF EXISTING PIPELINES

A. General: The scope of work requires the Contractor to interface with existing piping which will be removed as part of the work. Prior to beginning any work associated with existing facilities to be removed, the Contractor shall inform the Owner of his intent so that all arrangements can be made with the Owner for disconnecting or isolating pipelines (where possible) from service to the extent possible. The Contractor shall not proceed without written authorization from the Owner.

B. Pipelines: The Contractor shall remove existing pipelines or segments of existing pipelines shown to be replaced as part of the contract work. Pipe being replaced with new pipe shall be excavated and removed using methods which will not disturb adjacent pipe or other facilities. After pipe has been removed and new pipe installed, Contractor shall backfill the evacuated area in accordance with requirements set forth in other sections of these specifications.

C. Where new pipe is to be connected to existing pipe the existing pipe shall be cut square and the ends properly prepared for the connection. Any damage to the pipe, lining or coating of the existing pipe shall be repaired by the Contractor. Damage to new pipe shall be replaced.

D. Disposal of Debris: All debris, materials, pipe and miscellaneous waste products generated during the Work shall be removed from the job site as soon as possible and be disposed of in accordance with applicable federal, state, and local regulations. The Contractor is responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

1.11 OBSERVATION OF THE WORK

A. The Work shall be conducted under the general observation of the Owner/Town Representative to ensure strict compliance with the requirements of the Contract Documents. Such observation may include mill, plant, shop, or field observation, as required. The Owner shall be permitted access to all parts of the Work, including plants where materials are manufactured or fabricated.

B. The presence of the Owner or any observer, however, shall not relieve the Contractor of the responsibility for the proper execution of the Work in accordance with all requirements of the Contract Documents. Compliance is a duty of the Contractor, and said duty shall not be avoided by any act or omission on the part of the Owner or any observer.

C. All materials and articles furnished by the Contractor shall be subject to rigid inspection, and no materials or articles shall be used in the Work until they have been inspected and accepted by the Owner or its representative. No Work shall be backfilled, buried, cast in concrete, hidden or otherwise covered until it has been inspected by the Owner or its authorized representative. Any Work so covered in the absence of inspection shall be subject to uncovering at Contractor's expense. Where uninspected Work cannot be uncovered, such as in concrete cast over reinforcing steel, all such Work shall be subject to demolition, removal, and reconstruction under proper inspection and no additional payment will be allowed therefore.

1.12 TIME OF OBSERVATION AND TESTS

A. Samples and test specimens required under these Specifications shall be furnished and prepared for testing in ample time for the completion of the necessary tests and analyses before said articles or materials are to be used. The Contractor shall furnish and prepare all required test specimens within the scope of the Contract. Except as otherwise provided in the Contract Documents, performance of the required tests will be by the Owner, and all costs therefore will be borne by the Owner at no cost to the Contractor, except that the costs of any test which shows unsatisfactory results shall be borne by the Contractor. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover any Work under the Contract, the Owner shall be notified not less than twenty-four hours in advance to request inspection before beginning any such Work of covering. Failure of the Contractor to notify the Owner at least twenty-four hours in advance of any such inspections shall be reasonable cause for the Owner to order a sufficient delay in the

Contractor's schedule to allow time for such inspections and any remedial or corrective Work required, and all costs of such delays, including its effect upon other portions of the Work, shall be borne by the Contractor.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01500

CONSTRUCTION CONSIDERATIONS

PART 1 – GENERAL

1.01 CUTTING AND PATCHING

A. The Contractor shall perform all cutting and patching of his Work that may be required to make its several parts come together properly and fit it to receive or be received by such other work. The Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and shall only cut or alter work with the written consent of the Owner and of the other contractors whose work will be affected.

1.02 ABANDONMENT AND SALVAGE OF EXISTING FACILITIES

A. General: The Scope of Work requires the Contractor to interface with existing facilities (pipe and structures) which will be abandoned as part of the Work. Prior to beginning any Work associated with existing facilities to be abandoned, the Contractor shall inform the Owner of his intent so that arrangements can be made with the Owner for isolating pipelines (where necessary and possible). The Contractor shall not proceed without written authorization from the Owner.

B. Pipelines: The Contractor shall abandon, salvage, or otherwise remove existing pipe or segments of existing pipe to be removed or replaced as part of the Contract Work.

C. Pipe to be removed which interferes with new structures or new pipe shall be excavated and removed using methods which will not disturb adjacent pipe or other facilities. After pipe has been removed, the Contractor shall backfill the excavated area in accordance with requirements set forth in other Sections of these Specifications.

1.03 REHABILITATION

A. Certain areas of existing structures, pipe, conduit, and the like that will be affected by Work will be rehabilitated/repaired by the Contractor.

B. Where new pipe is to be connected to existing pipe the existing piping shall be cut square, and the ends shall be properly prepared for the connection. Any damage to either pipe shall be repaired by the Contractor at his expense.

C. Disposal of Debris: All debris, materials, piping, and miscellaneous waste products from the Work described in this Section shall be removed from the project as soon as possible and disposed of in accordance with applicable federal, state, and local regulations. The Contractor is responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

1.04 INSTALLATION OF NEW PIPE

A. Contractor shall have on hand sufficient personnel, proper equipment, and machinery of ample capacity to facilitate the Work.

B. Contractor shall be responsible for locating, aligning and leveling new pipe and shall employ a licensed surveyor to set all lines and levels of equipment to the accuracy required.

C. Complete manufacturer's installation instructions including permissible tolerances shall be furnished in duplicate with each component of the pipeline.

D. The new pipeline shall be installed in accordance with the Shop Drawings; inclusive of manufacturer's specifications, drawings, and tolerances; and under the direct supervision of the required manufacturer's engineer. No instructions shall be issued that are contrary to written Specifications without prior written approval by the Owner's Engineer.

1.05 OBSTRUCTIONS

A. All water pipes, storm drains, sanitary sewers, force mains, gas or other pipe, telephone or power cables, or conduits and all other obstructions, whether or not shown, shall be temporarily supported across utility line excavations. The Contractor shall be responsible for any damage to any such pipes, conduits, or structures. Approximate locations of known water, sanitary, drainage, power, and telephone installations along route of new pipelines or in the vicinity of new Work must be verified in the field by the Contractor. The Contractor shall uncover these pipes, ducts, cables, etc., carefully, by hand, prior to installing new pipe or structures. Any discrepancies or differences found shall be brought to the attention of the Owner in order that necessary changes may be made to permit installation of new Work. These conditions are supplemental to general requirements elsewhere in the Contract Documents.

1.06 PROTECTION OF PROPERTY

A. The Contractor shall protect all property that may be affected by his Work or operations. The location and extent of underground and covered facilities are not guaranteed and the Contractor is cautioned to proceed with care in order to prevent the undermining or damage to existing structures, piping, or facilities.

B. The Contractor shall take all measures necessary to protect new and existing mechanical equipment from dust and debris. All protective measures shall be furnished, installed, lighted, ventilated, maintained, and removed at the Contractor's cost.

C. When Town water is being used, the supply source shall be protected against contamination in accordance with existing codes and regulations. Connection to Town water must be coordinated with Owner.

D. In the event that any of the Contractor's activities disrupt or endanger any facilities, he shall at his own expense make all necessary repairs or replacements necessary to correct the situation to the satisfaction of the Owner. Such work shall progress continuously to completion 24 hours per day, 7 days per week basis if determined by the Owner to be necessary. The Contractor shall be responsible for the services of repair crews on call 24 hours per day for emergencies that arise involving Work under this Contract.

1.07 WEATHER CONDITIONS

A. Work that may be affected by inclement weather shall be suspended until proper conditions prevail. In the event of impending storms, the Contractor shall take necessary precautions to protect all Work, materials, and equipment from exposure. The Owner reserves the right, to order that additional protective measures over and beyond those proposed by the Contractor, be taken to safeguard all components of the project. The Contractor shall not claim any compensation for such precautionary measures so ordered, nor claim any compensation from the Owner for damage to the Work from the elements of weather.

1.08 FIRE PROTECTION

A. The Contractor shall take all necessary precautions to prevent fires at or adjacent to the Work, including his own buildings and trailers. Adequate fire extinguisher and hose line stations shall be provided throughout the work area.

1.09 SAFETY AND HEALTH REQUIREMENTS

A. The Contractor shall comply in every respect with all Federal, State, and local safety and health regulations.

B. The Contractor shall provide all barricades and flashing warning lights or other devices necessary to warn pedestrians and area traffic.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01510

TEMPORARY UTILITIES

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. It shall be the Contractor's responsibility to provide equipment that is adequate for the performance of the Work under this Contract within the time specified. All equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required Work, and shall be subject to inspection and review by the Owner's representative at any time within the duration of the Contract. All Work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction.

B. The Contractor shall provide for utilities and services for its own operations. The Contractor shall furnish, install and maintain all temporary utilities during the contract period including removal upon completion of the Work.

1.02 POWER AND LIGHTING

A. Construction Lighting: All Work conducted at night or under conditions of deficient daylight shall be suitably lighted to insure proper Work and to afford adequate facilities for inspection and safe working conditions.

B. Electrical Connections: All temporary connections for electricity shall be subject to review by the Owner and the power company representative, and shall be removed in like manner at the Contractor's expense prior to final acceptance of the Work.

C. Separation of Circuits: Unless otherwise permitted by the Owner, circuits separate from lighting circuits shall be used for all power purposes.

D. Construction Wiring: All wiring for temporary electric light and power shall be properly installed and maintained and shall be securely fastened in place. All electrical facilities shall conform to the requirements of Subpart K of the OSHA Safety and Health Standards for Construction.

1.03 WATER SUPPLY

A. General: The Contractor shall obtain a hydrant meter from the Owner by placing a deposit and requesting a meter from the Town of Jupiter Utilities Business Office. Contractor will not be charged for water use if water is used responsibly as determined by the Owner. Contractor shall provide and maintain all meters, piping, fittings, adapters, and valving required. Deposit will be returned to Contractor upon return of meter.

B. Potable Water: All drinking water on the site during construction shall be furnished by the Contractor and shall be bottled water or water furnished in suitable dispensers.

C. Water Connections: The Contractor shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each such connection made, the Contractor shall first attach to the fire hydrant or pipeline a valve and a meter, if required by the said authority, of a size and type acceptable to said authority and agency.

D. Removal of Water Connections: Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the Owner and to the agency owning the affected utility.

E. Fire Protection: The construction and all other parts of the Work shall be adequately protected against damage by fire. Hose connections and hose, water casks, chemical equipment, or other sufficient means shall be provided for fighting fires in the temporary structures and other portions of the Work, and responsible persons shall be designated and instructed in the operation of such fire apparatus so as to prevent or minimize the hazard of fire. The Contractor's fire protection program shall conform to the requirements of Subpart F of the OSHA Standards for Construction.

1.04 SANITATION

A. Toilet Facilities: Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Part 1926 of the OSHA Standards for Construction.

B. Such facilities shall be made available when the first employees arrive on the Work site, shall be properly secluded from public observation, and shall be constructed and maintained in suitable numbers and at such points and in such manner as may be required.

C. The Contractor shall maintain the sanitary facilities in a satisfactory and sanitary condition at all time 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 an adjacent property.

D. The Owner shall have the right to inspect any building or other facility erected, maintained, or used by the Contractor, to determine whether or not the sanitary regulations have been complied with.

E. Sanitary and Other Organic Wastes: The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Owner and in accordance with all laws and regulations pertaining thereto.

1.05 TEMPORARY VENTILATION

A. The Contractor shall provide and maintain adequate ventilation for a safe working environment. In addition, forced air ventilation shall be provided for the curing of installed materials, humidity control and the prevention of hazardous accumulations of dust, gases or vapors.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

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SECTION 01520

MAINTENANCE OF FACILITIES AND SEQUENCE OF CONSTRUCTION

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall coordinate his Work so as not to impact any nearby public or private facilities. In performing the Work shown and specified, the Contractor shall plan and schedule his Work as outlined in Article 1.07 of this Section entitled "General Sequence of Construction and Operation".

1.02 CONSTRUCTION SCHEDULE

A. The Construction Schedule shall be submitted by the Contractor in accordance with Section 01300 entitled "Submittals".

1.03 USE OF FACILITIES BEFORE COMPLETION

A. The Owner reserves the right to enter and use any portion of the constructed facilities before final completion of the whole Work to be done under the Contract.

1.04 CONNECTION OF EXISTING SYSTEMS

A. All connections to existing systems shall be performed in such a manner that no damage and minimal interruption is caused to the existing installation. Upon completion of the installation and approval from the Palm Beach County Health Department, the Contractor shall schedule with the Owner tying in the new watermain to existing watermain. Any damage caused to existing installations shall be repaired or replaced by the Contractor, in a manner approved by the Owner, and at no additional cost to the Owner.

1.05 COORDINATION WITH UTILITY PERSONNEL

A. Before commencing Work involving the removal of existing facilities or placement in operation of new facilities or tie-ins to existing facilities, the Contractor shall notify the Owner at least 36 hours in advance.

1.06 COORDINATION WITH PRIVATE PROPERTY OWNER

A. Work directly adjacent to private properties shall be coordinated with the Owner and the adjacent property owner prior to mobilization of equipment, personnel, and materials.

1.07 GENERAL SEQUENCE OF CONSTRUCTION AND OPERATION

A. Work under the Contract shall be scheduled and performed in such a manner as to result in the least possible disruption to the public's use of roadways, driveways, and utilities. Utilities shall include but not be limited to water, sewerage, drainage structures, electrical, cable, and telephone service. Prior to commencing with the Work, the Contractor shall perform a location investigation of existing underground utilities and facilities in accordance with Section 01530 entitled "Protection of Existing Facilities".

B. The outlined sequence of construction does not include all items necessary to complete the Work, but is intended to identify the sequence of critical events necessary to minimize disruption to the function of affected facilities. It shall be understood by the Contractor that the critical events identified are not all inclusive and that additional items of Work not shown may be required. The sequence of construction is a precedence requirement and does not attempt to schedule the Contractor's Work. It is intended only to indicate which activities must precede other activities in order to minimize interferences and disruptions.

C. At no time shall the Contractor undertake to close off any pipelines, manipulate valves, or take any other action which would affect the operation of the existing system, except as specifically required by the Drawings and Specifications, until authorization is granted by the Owner and after proper notification.

D. Temporary installations required to complete a particular aspect of the Work during the allotted time period shall be determined and implemented by the Contractor at no additional cost to the Owner. All such temporary installations shall be subject to the review and acceptance of the Owner.

E. Sequence of certain major events and identification of time constraints for removing piping and equipment from active service are as follows:

1. Phase I - Mobilization:

    a. Mobilize for work – set up staging area; develop and submit pollution prevention plan, dewatering disposal submittal, construction schedule and Shop Drawing Schedule; obtain permits; and begin submitting Shop Drawings (except those requiring verification of facilities - for those items verification should precede submittals).

2. Phase II - Site Preparation:

    a. Verify locations of facilities, elevations, dimensions, type of joints, manufacturer of equipment, etc., before ordering materials to complete the Work in accordance with the Contract Documents and field conditions.

b. Obtain equipment and materials to implement approved pollution prevention plan, approved dewatering disposal plan and meet all permitting requirements related to pollution prevention and testing/dewatering water containment and disposal.

c. Order pipe, structures, adapters, plugs, etc and other long lead items so that materials may be delivered in a timely fashion without delay to construction.

d. Meet all preconstruction requirements as noted in applicable permits associated with the Work.

3. Phase III – Construction:

a. Once Phase I and II are complete, the Contractor may proceed with the Work.

4. Phase IV - Final Sitework and Closeout:

a. Remove temporary plugs.

b. Restoration, final grading, sodding, punch list work.

c. Remove turbidity barriers, filter fabric, and other Best Management Practices (BMPs) installed for construction.

d. Demobilize and start closeout activities as described in Section 01700 entitled "Project Closeout".

F. Other Construction Constraints: The Contractor shall comply with the following constraints during construction and utilize these constraints in determining a sequence of construction:

1. A pre-construction video of the areas to be affected by construction and adjacent surrounding areas must be provided to and accepted by the Owner prior to mobilization.

2. All drives and approaches shall be restored to a useable condition at the end of each work day.

3. Maintain access to mailboxes or relocate as required and as approved by Post Master.

4. Excavations in residential areas shall be backfilled, and temporary restoration shall be completed at the end of each work week. No open holes will be allowed at night or over weekends or holidays. All excavation shall be secured at the end of each work day to prohibit public access.

5. Final restoration of roads, driveways, sidewalks, and all other paved areas shall be complete within 14 days of pipe and structure installation.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 COORDINATION WITH EXISTING UTILITIES AND OTHER AGENCIES

A. The Contractor shall notify all utilities including Loxahatchee River District (LRD), FPL, Bell South, cable, etc. in writing, with a copy to the Owner, before construction is started and shall coordinate its activities with them. The Contractor shall cooperate with the owners of utilities that may require temporary interruption of service in order to minimize the interruption. The Contractor shall call Sunshine One-Call Notification at 1-800-432-4770 a minimum of 48 hours prior to any excavation for location of existing underground facilities.

3.02 COOPERATION

A. The Contractor shall allow representatives from the permitting agencies, Owner or their agents to enter the facilities being constructed under this Contract for the purpose of inspecting, constructing, installing, operating, maintaining, removing, repairing, altering, or replacing such equipment pipes, sewers, conduits, manholes, wires, or other structures and appliances which may be required to be installed at or in the Work. The Contractor shall cooperate with all of the aforesaid parties and shall allow reasonable provisions for the prosecution of any other work by the Owner, or others, to be done in connection with his Work or in connection with normal use of the facilities.

- END OF SECTION -

SECTION 01530

PROTECTION OF EXISTING FACILITIES

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. Contractor shall be responsible for the preservation and protection of property adjacent to the work site against damage or injury as a result of his operations under this Contract. Any damage or injury occurring on account of any act, omission or neglect on the part of the Contractor shall be restored in a proper and satisfactory manner or replaced by and at the expense of the Contractor to an equal or superior condition than previously existed.

B. Contractor shall comply promptly with such safety regulations as may be prescribed by the Owner or the local authorities having jurisdiction and shall, when so directed, properly correct any unsafe conditions created by, or unsafe practices on the part of, his employees. In the event of the Contractor's failure to comply, the Owner may take the necessary measures to correct the conditions or practices complained of, and all costs thereof will be deducted from any monies due the Contractor. Failure of the Owner to direct the correction of unsafe conditions or practices shall not relieve the Contractor of his responsibility hereunder.

C. In the event of any claims for damage or alleged damage to property as a result of work under this Contract, the Contractor shall be responsible for all costs in connection with the settlement of or defense against such claims. Prior to commencement of work in the vicinity of property adjacent to the work site, the Contractor, at his expense, shall take such surveys as may be necessary to establish the existing condition of the property. Before final payment can be made, the Contractor shall furnish satisfactory evidence that all claims for damage have been legally settled or sufficient funds to cover such claims have been placed in escrow, or that an adequate bond to cover such claims has been obtained.

1.02 PROTECTION OF WORK AND MATERIAL

A. During the progress of the work and up to the date of final payment, the Contractor shall be solely responsible for the care and protection of all work and materials covered by the Contract.

B. All work and materials shall be protected against damage, injury or loss from any cause whatsoever, and the Contractor shall make good any such damage or loss at his own expense. Protection measures shall be subject to the approval of the Owner.

1.03 BARRICADES, WARNING SIGNS AND LIGHTS

A. Each Contractor shall provide and maintain such other warning signs and barricades in areas of and around their respective work as may be required for the safety of all those employed in the work, the Owner's operating personnel, or those visiting the site.

1.04 EXISTING UTILITIES AND STRUCTURES

A. The term existing utilities shall be deemed to refer to both publicly-owned and privately-owned utilities such as electric power and lighting, telephone, water, gas, storm drains, process lines, sanitary sewers and all appurtenant structures.

B. Where existing utilities and structures are indicated on the Drawings, it shall be understood that all of the existing utilities and structures affecting the work may not be shown and that the locations of those shown are approximate only. It shall be the responsibility of the Contractor to ascertain the actual extent and exact location of existing utilities and structures. In every instance, the Contractor shall notify the proper authority having jurisdiction and obtain all necessary directions and approvals before performing any work in the vicinity of existing utilities.

C. Prior to beginning any excavation work, the Contractor shall, through field investigations, determine any conflicts or interferences between existing utilities and new utilities to be constructed under this project. This determination shall be based on the actual locations, elevations, slopes, etc., of existing utilities as determined in the field investigations, and locations, elevation, slope, etc. of new utilities as shown on the Drawings. If an interference exists, the Contractor shall bring it to the attention of the Owner as soon as possible. If the Owner agrees that an interference exists, he shall modify the design as required. Additional costs to the Contractor for this change shall be processed through a Change Order as detailed elsewhere in these Contract Documents. In the event the Contractor fails to bring a potential conflict or interference to the attention of the Owner prior to beginning excavation work, any actual conflict or interference which does arise during the Project shall be corrected by the Contractor, as directed by the Owner, at no additional expense to the Owner.

D. The work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to insure there is no interruption of existing services. Any damage resulting from the work of this Contract shall be promptly repaired by the Contractor at his own expense in a manner approved by the Owner and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that they perform their own repairs or have them done by others, the Contractor shall be responsible for all costs thereof.

E. Where excavations by the Contractor require any utility lines or appurtenant structures to be temporarily supported and otherwise protected during the construction work, such support and protection shall be provided by the Contractor. All such work shall be performed in a manner satisfactory to the Owner and the respective authority having jurisdiction over such work. In the event the Contractor fails to provide proper support or protection to any existing utility, the Owner may, at his discretion, have the respective authority to provide such support or protection as may be necessary to insure the safety of such utility, and the costs of such measures shall be paid by the Contractor.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

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SECTION 01550

SITE ACCESS AND STORAGE

PART 1 – GENERAL

1.01 SITE ACCESS

A. Work may be required in various locations throughout the Town. Therefore, the Contractor shall make its own general investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation within the Town limits. It shall be the Contractor's responsibility to construct and maintain any haul roads required for its construction operations.

1.02 TEMPORARY CROSSINGS

A. General: Wherever necessary or required for the convenience of the public or individual residents at street or highway crossings, private driveways, or elsewhere, the Contractor shall provide suitable temporary bridges over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges, which written consent shall be delivered to the Owner prior to excavation. All such bridges shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges, or shall submit designs to said authority for approval, as may be required.

B. Street Use: Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alleyway, or parking area during the performance of the Work hereunder, and he shall so conduct his operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleys, ways, or parking areas. No street shall be closed to the public without first obtaining permission of the Owner and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise provided or shown. Toe boards shall be provided to retain excavated material if required by the Owner or the agency having jurisdiction over the street or highway. 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 assure the use of sidewalks and the proper functioning of all gutters, sewer inlets, and other drainage facilities.

C. Traffic Control: For the protection of traffic in public or private streets and ways, the Contractor shall provide, place, and maintain all necessary barricades, traffic cones,

warning signs, lights, and other safety devices in accordance with the requirements of the "Manual of Uniform Traffic Control Devices, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations," published by U.S. Department of transportation, Federal Highway Administration (ANSI D6.1).

D. The Contractor shall take all necessary precautions for the protection of the Work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Contractor shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.

E. For each work order, the Contractor shall submit a traffic control plan/MOT plan to the Owner for approval a minimum of two weeks prior to construction. The Town of Jupiter reserves the right to observe these traffic control plans in use and to make any changes as field conditions warrant. Any changes shall supersede these plans and be done solely at the Contractor's expense. The Contractor shall keep a copy of the traffic control plan on site at all times of construction. If the work affects traffic on Palm Beach County or FDOT roadways, traffic control plans shall also be submitted to those agencies for approval.

F. The Contractor shall remove traffic control devices when no longer needed, repair all damage caused by installation of the devices, and shall remove post settings and backfill the resulting holes to match grade.

G. Temporary Street Closure: If closure of any street is required during construction, a formal application for a street closure shall be made to the authority having jurisdiction at least 30 days prior to the required street closure in order to determine necessary sign and detour requirements.

H. Temporary Driveway Closure: The Contractor shall notify the Owner or occupant (if not owner-occupied) of the closure of the driveways to be closed more than one eight-hour work day, at least three working days prior to the closure. The Contractor shall minimize the inconvenience and minimize the time period that the driveways will be closed. The Contractor shall fully explain to the owner/occupant how long the work will take and when closure is to start.

I. Temporary Bridges: Whenever necessary, the Contractor shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges or steel plates, which written consent shall be delivered to the Engineer prior to excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having

jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.

1.03 STORAGE

A. Responsibility for protection and safekeeping of equipment and materials will be solely that of the Contractor, and no claim shall be made against the Owner by reason of any act of an employee or trespasser. Should an occasion arise necessitating access to an area occupied by stored equipment and/or materials, the Contractor shall immediately move them.

B. Upon completion of the Contract, the Contractor shall remove from the storage areas all of their equipment, temporary fencing, surplus materials, rubbish, etc., and restore the area to its original or better conditions.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

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SECTION 01560

TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

1.01 EXPLOSIVES AND BLASTING

A. The use of explosives on the Work will not be permitted.

1.02 DUST ABATEMENT

A. The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Owner. No separate payment will be allowed for dust abatement measures and all costs thereof shall be included in the Contractor's bid price.

1.03 RUBBISH CONTROL

A. During the progress of the Work, the Contractor shall keep the site of the Work and other areas used in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the Work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the site of construction in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.

1.04 SANITATION

A. Toilet Facilities: Fixed or portable chemical toilets shall be provided wherever needed for use of employees. Toilets at construction job sites shall conform to the requirements of Part 1926 of the OSHA Standards for Construction.

B. Such facilities shall be made available when the first employees arrive on the Work site, shall be properly secluded from public observation, and shall be constructed and maintained in suitable numbers and at such points and in such manner as may be required.

C. 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 an adjacent property.

D. The Owner shall have the right to inspect any building or other facility erected, maintained, or used by the Contractor, to determine whether or not the sanitary regulations have been complied with.

E. Sanitary and Other Organic Wastes: The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Owner and in accordance with all laws and regulations pertaining thereto.

1.05 CHEMICALS

A. All chemicals used during project construction or furnished for project operation, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, paint, fuel, solvent or reactant of other classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. The handling, storage, use and disposal of all such chemicals and disposal of residues shall be in strict accordance with all applicable rules and regulations of Federal, State and local jurisdictional agencies and the printed instructions of the manufacturer and all regulatory requirements. Copies of antidote literature shall be kept at the storage site and at the Contractor's job site office. A supply of antidotes shall be kept at the Contractor's office.

1.06 NOISE CONTROL

A. Noise resulting from the Contractor's work shall not exceed the noise levels and other requirements stated in local ordinances. The Contractor shall be responsible for curtailing noise resulting from his operation. He shall, upon written notification from the Owner or the noise control officers, make any repairs, replacements, adjustments, additions and furnish mufflers when necessary to fulfill requirements.

1.07 EROSION ABATEMENT AND WATER POLLUTION

A. It is imperative that any Contractor dewatering operation should not contaminate or disturb the environment or the properties adjacent to the work. The Contractor shall, therefore, schedule and control his operations to confine all runoff water from disturbed surfaces, water from dewatering operations that becomes contaminated with lime silt,

muck and other deleterious matter, fuels, oils, bitumens, calcium chloride, chemicals and other polluting materials.

B. The Contractor shall construct temporary stilling basin(s) of adequate size and provide all necessary temporary materials, operations and controls including, but not limited to, filters, coagulants, screens, and other means necessary to attain the required discharge water quality.

C. The Contractor shall be responsible for providing, operating and maintaining materials and equipment used for conveying the clear water to the point of discharge. All pollution prevention procedures, materials, equipment and related items shall be operated and maintained until such time as the dewatering operation is discontinued. Upon the removal of the materials, equipment and related items, the Contractor shall restore the area to the condition prior to its commencing work.

1.08 PRECAUTIONS DURING ADVERSE WEATHER

A. During adverse weather, and against the possibility thereof, the Contractor shall take all necessary precautions so that the work may be properly done and satisfactory in all respects. When required, protection shall be provided by use of tarpaulins, wood and building paper shelters, or other acceptable means. The Contractor shall be responsible for all changes caused by adverse weather.

B. The Owner may suspend construction operations at any time when, in his judgment, the conditions are unsuitable or the proper precautions are not being taken, whatever the weather conditions may be, in any season.

1.09 HURRICANE AND STORM WARNINGS

A. During such periods of time as are designated by the United States Weather Bureau as being a hurricane alert, watch or warning, the Contractor shall perform all precautions as necessary to safeguard the work and property, including the removal of all small equipment and materials from the site, lashing all other equipment and materials to each other and to rigid construction, and any other safety measures as indicated below.

B. Upon Notification of a Hurricane Alert:

1. Upon issuance of a Hurricane Alert by the Town, all Contractors performing work within the right-of-way of a designated evacuation route shall immediately secure their work, backfill all excavations within the right-of-way and suitably prepare the roadway surface for full traffic flow. This work shall be completed within 24 hours of the issuance of the alert. Work shall not recommence until the "All Clear" is issued by the Town.

2. Contractors performing at all other locations shall remove all unnecessary debris, materials, and equipment from the job site. The Contractor shall also keep his crew on standby on weekends and holidays during the Hurricane Alert period.

C. Upon Notification of a Hurricane Watch:

1. Contractors shall implement their approved Plan of Action to protect the project and the public.

D. Upon Notification of a Hurricane Warning

1. Contractors shall implement their approved Plan of Action to protect the project and the public.

2. For work within the public right-of-ways, the Contractor will be notified by the Town to suspend his construction operations. The Contractor will backfill all open trenches, remove all construction equipment and materials from the right-of-way and secure operations pending further notice.

1.10 PERIODIC CLEANUP AND BASIC SITE RESTORATION

A. During construction, the Contractor shall regularly remove from the site all accumulated debris and surplus materials of any kind which results from its operations. Unused equipment and tools shall be stored at the Contractor's yard or base of operations for the project.

B. The Contractor shall perform the cleanup work on a regular basis and as frequently as ordered by the Owner. Basic site restoration in a particular area shall be accomplished immediately following the installation or completion of the required facilities in that area. Furthermore, such work shall also be accomplished, when ordered by the Owner, if partially completed facilities must remain incomplete for some time period due to unforeseen circumstances.

C. Upon failure of the Contractor to perform periodic clean-up and basic restoration of the site to the Owner's satisfaction, the Owner may, upon 5 days' prior written notice to the Contractor, employ such labor and equipment as it deems necessary for the purpose, and all costs resulting therefrom shall be charged to the Contractor and deducted from amounts of money that it may be due.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01570

TRAFFIC REGULATIONS AND MAINTENANCE OF TRAFFIC

PART 1 – GENERAL

1.01 TRAFFIC CONTROL

A. Contractor shall obey all traffic laws and comply with all the requirements, rules and regulations of the Florida State Department of Transportation, Town of Jupiter, and other local authorities having jurisdiction, to maintain adequate warning signs, lights, barriers, etc., for the protection of traffic on public roadways.

B. The Contractor shall maintain traffic and protect the public from all damage to persons and property within the Contractors Work Limits and Area, in accordance with the Contract Documents and all applicable state, county and local regulations. He shall conduct his operations so as to maintain and protect access, for vehicular and pedestrian traffic, to and from all properties and business establishments adjoining or adjacent to those streets affected by his operations, and to subject the public to a minimum of delay and inconvenience. Suitable signs, barricades, railing, etc., shall be erected and the work outlined by adequate lighting at night. Danger lights shall be provided as required. Watchmen and flagmen shall be provided as may be necessary for the protection of traffic.

C. Maintenance of Traffic Plans (M.O.T.): After Notification to Proceed for any given Work Order, the Contractor shall immediately prepare and submit Maintenance of Traffic (M.O.T.) Plans to the Town of Jupiter Utilities Department for approval. The traffic maintenance plan must meet the Department's requirements. Said M.O.T. Plans shall be in written form with sketches or drawings as necessary and shall comply with the Department and State of Florida Department of Transportation standards for M.O.T. in construction areas. The Plans shall be submitted as soon as possible and not later than two weeks prior to any construction work. A copy of approval shall be provided to the Engineer. If the work affects traffic on Palm Beach County or FDOT roadways, M.O.T. plans shall be submitted to those agencies for approval.

D. The Contractor shall maintain one copy of the approval M.O.T. plan on the construction site for inspection. The Town of Jupiter Utilities Department reserves the right to observe the M.O.T. plan in use and to make any changes as field conditions warrant. Any changes shall supersede the plan and be done at the Contractor's expense.

E. All dirt spilled from the Contractor's trucks on existing pavements shall be removed by the Contractor whenever in the opinion of the Engineer the accumulation is sufficient to cause the formation of mud, dust, interference with traffic or create a traffic hazard.

F. The Contractor shall comply with all traffic regulations and perform maintenance of traffic as part of his pipe replacement operation. No separate payment item shall be made.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01600

EQUIPMENT AND MATERIALS

PART 1 – GENERAL

1.01 GENERAL

A. All equipment, materials, instruments, or devices incorporated in this project shall be new and unused, unless indicated otherwise in the Contract Documents.

B. Equipment and materials to be incorporated in the Work shall be delivered sufficiently in advance of their installation and use to prevent delay in the execution of the Work, and they shall be delivered as nearly as feasible in the order required for executing the Work.

C. The Contractor shall protect all equipment and materials from deterioration and damage. The equipment and materials shall be handled and stored by the manufacturer, fabricator supplier, and Contractor before, during, and after shipment to prevent warping, twisting, bending, breaking, chipping, rusting, and any injury, damage or theft of any kind whatsoever. Any equipment exhibiting any of the above shall be removed and replaced at the Contractor's expense for both labor and materials.

1.02 STORAGE

A. The Contractor shall store his equipment and materials at the jobsite in accordance with the manufacturer's recommendations and as directed by the Owner. He shall not store unnecessary materials or equipment on the jobsite and shall prevent any structure from being overloaded and endangering the safety of his personnel. The Contractor shall enforce the instructions of the Owner and the Owner regarding the posting of regulatory signs for loadings on structures, fire safety, and smoking areas.

1.03 HANDLING AND MAINTENANCE

A. The manufacturer's storage instructions shall be carefully followed and any deviations shall be approved by the manufacturer in writing with a copy to the Owner. Equipment with moving parts shall be rotated per the manufacturer's recommendations while in storage and during the period between installation and acceptance.

B. All equipment shall be stored fully lubricated unless otherwise instructed by the manufacturer. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.

PART 2 -- PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION -

SECTION 01700

PROJECT CLOSEOUT

PART 1 – GENERAL

1.01 FINAL CLEANUP

A. This section refers specifically to the completion and closeout of individual work orders.

B. The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, unused materials, concrete forms, construction equipment, temporary structures and facilities, construction signs, tools, scaffolding, materials, supplies and equipment which may have been used in the performance of the work. The Contractor shall broom clean paved surfaces and rake clean other surfaces of grounds. Final acceptance of the Work by the Owner will be withheld until the Contractor has satisfactorily complied with the foregoing requirements for final cleanup of the project site.

C. The Contractor shall thoroughly clean all materials, equipment and structures; all marred surfaces shall be touched up to match adjacent surfaces.

D. The Contractor shall remove spatter, grease, stains, fingerprints, dirt, dust, labels, tags, packing materials and other foreign items or substances from interior and exterior surfaces, equipment, signs and lettering.

E. The Contractor shall remove paint, clean and restore all equipment and material nameplates, labels and other identification markings.

F. The Contractor shall maintain cleaning until project, or portion thereof, is accepted by the Owner.

G. The Contractor shall:

1. Use only cleaning materials recommended by manufacturer of surface to be cleaned.

2. Use each type of cleaning material on only those surfaces recommended by the cleaning material manufacturer.

3. Use only materials which will not create hazards to health or property.

1.02 CLOSEOUT TIMETABLE

A. The Contractor shall establish dates for testing, acceptance periods, and on-site instructional periods (as required under the Contract). Such dates shall be established not less than one week prior to beginning any of the foregoing items, to allow the Owner and their authorized representatives sufficient time to schedule attendance at such activities.

1.03 FINAL SUBMITTALS

A. Before the final acceptance of the project, the Contractor shall submit to the Owner (or to the Owner if indicated) certain records, certifications, etc., which are specified elsewhere in the Contract Documents. Missing, incomplete or unacceptable items, as determined by the Owner, shall constitute grounds for withholding final payment to the Contractor. A partial list of such items appears below, but is shall be the Contractor's responsibility to submit any other items which are required in the Contract Documents:

1. Written Test results of project components.

2. Written guarantees, where required.

3. Certificates of inspection and acceptance by local governing agencies having jurisdiction.

4. Video tapes and logs of all lines televised.

5. Pre-construction photos (5" x 7").

6. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.

1.04 PUNCH LISTS

A. Final cleaning shall be scheduled upon completion of the project.

B. The Owner will make his final inspection whenever the Contractor has notified the Owner that the work is ready for the inspection. Any work not found acceptable and requiring cleaning, repair and/or replacement will be noted on the "Punch" list. Work that has been inspected and accepted by the Owner shall be maintained by the Contractor, until final acceptance of the entire project.

C. Whenever the Contractor has completed the items on the punch list, he shall again notify the Owner that it is ready for final inspection. This procedure will continue until the entire project is accepted by the Owner. The "Final Payment" will not be processed until the

entire project has been accepted by the Owner and all of the requirements in previous Article 1.03 "Final Submittals" have been satisfied.

1.07 TOUCH-UP AND REPAIR

A. The Contractor shall touch-up and repair damage to all existing facilities and surfaces. If in the opinion of the Owner the touch-up work is not satisfactory, the Contractor shall repeat the item.

1.08 MAINTENANCE AND GUARANTEE

A. The Contractor shall comply with all maintenance and guarantee requirements of the Contract Documents.

B. Replacement of earth fill or backfill, where it has settled below the required finish elevations, shall be considered as a part of such required repair work, and any repair or resurfacing constructed by the Contractor which becomes necessary by reason of such settlement shall likewise be considered as a part of such required repair work unless the Contractor shall have obtained a statement in writing from the affected private Owner or public agency releasing the Owner from further responsibility in connection with such repair or resurfacing.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

- END OF SECTION –

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SECTION 02110

CLEARING AND GRUBBING

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. Clear and grub the areas to be occupied by the proposed storm water transmission system including all areas to be excavated, filled, paved, or planted as shown on the Drawings, and remove and/or dispose of material and debris resulting from these operations as specified herein.

B. Unless otherwise shown on the Drawings, clearing and grubbing shall be done within the rights-of-way.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 CLEARING

A. The surface of the ground, for the area to be cleared and grubbed shall be completely cleared of all timber, brush, stumps, roots, grass, weeds, rubbish and all other objectionable obstructions resting on or protruding through the surface of the ground. However, those trees which are designated by the Owner shall be preserved as hereinafter specified. Clearing operations shall be conducted so as to prevent damage to existing facilities.

B. For selective clearing, the Owner shall select and mark, or otherwise designate, the trees or other vegetation to be removed.

3.02 GRUBBING

A. Grubbing shall consist of the complete removal of all stumps, roots larger than 1.5 inches in diameter, matted roots, brush, timber, logs and any other organic or metallic debris resting on, under or protruding through the surface of the ground to a depth of 18 inches below the subgrade. All depressions excavated below the original ground surface for or by the removal of such objects, shall be refilled with suitable materials and compacted to a density conforming to the surrounding ground surface.

3.03 DISPOSAL OF CLEARED AND GRUBBED MATERIAL

A. The Contractor shall dispose of all material and debris from the clearing and grubbing operations by delivering to an appropriately permitted landfill.

B. Deep burial and burning of any material shall not be permitted. In no case shall debris from the clearing and grubbing operations remain on site. The cost of disposal of material (including hauling) shall be considered a subsidiary obligation of the Contractor, the cost of which shall be included in the Contract price.

3.04 PROTECTION OF ADJACENT AREAS

A. The Contractor shall protect areas shown on the Drawings or designated by the Owner to remain protected from damage by construction operations by erecting suitable barriers or other acceptable means. Areas outside the limits of construction as shown on the Drawings shall be protected and no equipment or materials shall be stored or allowed to damage these areas.

- END OF SECTION -

SECTION 02222

EXCAVATION AND BACKFILL FOR UTILITIES

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. Excavate, grade and backfill as required for the site underground piping systems, and electrical and instrumentation duct banks and conduit as shown in the Contract Documents and specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 15000 - Piping, General

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Codes: All codes, as referenced herein, are specified in Section 01090 - Reference Standards.

B. Commercial Standards:

ASTM D422	Method for Particle-Size Analysis of Soils.
ASTM D698	Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5-lb (2.49-kg) Rammer and 12-in (304.8-mm) Drop.
ASTM D1556	Test Method for Density of Soil in Place by the Sand-Cone Method.
ASTM D1557	Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb (4.54-kg) Rammer and 18-in (457-mm) Drop.
ASTM D2419	Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
ASTM D2922	Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

1.04 SUBMITTALS

A. The Contractor shall submit information and samples to the Engineer for review as specified herein in accordance with the Section 01300 - Submittals.

B. The Contractor shall submit to the Engineer his proposed methods of handling trench water and the locations at which the water will be disposed of. Methods shall be acceptable to the Engineer before starting the excavation.

C. The Contractor shall notify the Engineer of the off-site sources of bedding and backfill materials, and submit to the Engineer a representative sample weighing approximately 25 lbs.

D. Drawings of any proposed sheeting system and design computations shall be submitted to the Engineer; however, the review of these Drawings shall in no way relieve the Contractor of the responsibility to provide a safe and satisfactory sheeting and shoring system. Sheeting and shoring shall be designed by the Contractor, and the proposed design shall be sealed by a Professional Engineer registered in the State of Florida. If the Engineer is of the opinion that at any point sufficient or proper supports have not been provided, he may order additional supports put in at the Contractor's expense.

E. Dewatering

1. The Contractor shall submit his proposed methods of handling trench water and the locations at which the water will be disposed of. Methods shall be acceptable to the Engineer before starting and excavating.

F. Bedding and Backfill Materials

1. The Contractor shall notify the Engineer of the off-site sources of bedding and backfill materials and submit to the Engineer a representative sample weighing approximately 25 lbs.

G. Approvals Required

1. Prior to any earthwork, submit samples of the existing stripped soils and the proposed fill material to Engineer for analysis.

2. Do not place any footing reinforcing until the excavations have been tested for compaction.

3. Obtain necessary permits for dewatering.

1.05 QUALITY CONTROL

A. An independent testing laboratory will be retained by the Owner to provide appropriate testing as described in Section 01400 - Quality Control. The Contractor shall schedule his Work so as to permit a reasonable time for testing before placing succeeding lifts and shall keep the laboratory informed of his progress.

1.06 GROUNDWATER

A. The Contractor shall be responsible for anticipating groundwater conditions and shall provide positive control measures as required. Such measures shall ensure stability of excavations, groundwater pressure control, prevention of tanks, pipes, and other structures from being lifted by hydrostatic pressures, and avoiding the disturbance of subgrade bearing materials.

B. All dewatering work performed under this Contract shall be done in conformance with the subject to the limitations and regulations of the SFWMD.

1.07 TRENCH SAFETY ACT COMPLIANCE

A. The Contractor by signing and executing the contract is, in writing, assuring that he will perform any trench excavation in accordance with the Florida Trench Safety Act, Section 553.60 et. seq. The Contractor further identified the separate item(s) of cost of compliance with the applicable trench safety standards as well as the method of compliance as noted in the Contract front-end documents.

1. The Contractor acknowledges that this cost is included in the applicable items of the Proposal and Contract and in the Base Bid Price.

B. The Contractor is, and the Owner and Engineer are not, responsible to review or assess the Contractor's safety precautions, programs or costs, or the means, methods, techniques or technique adequacy, reasonableness of cost, sequences or procedures of any safety precaution, program or cost, including but not limited to, compliance with any and all requirements of Florida Statute Section 553.60 et. seq. cited as the "Trench Safety Act". The Contractor is, and the Owner and Engineer are not, responsible to determine if any safety or safety related standards apply to the project, including but not limited to, the "Trench Safety Act".

1.08 PROTECTION OF PROPERTY AND STRUCTURES

A. The Contractor shall, at his own expense, sustain in place and protect from direct or indirect injury, all pipes, poles, conduits, walls, buildings, and all other structures, utilities, and property in the vicinity of his work. The Contractor shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings, and all other structures, utilities, and property in the vicinity of his work. He shall be responsible for all damage, and assume all expenses, for direct or indirect injury and damage, caused by his work, to any such pipe, structures, etc., or to any person or property, by reason of injury to them, whether or not such structures, etc., are shown on the Drawings.

B. Barriers shall be placed at each end of all excavations and at such places as may be necessary along excavations to warn all pedestrian and vehicular traffic of such

excavations. Barricades with flashing lights shall also be placed along excavation from sunset each day to sunrise of the next day until such excavation is entirely refilled, compacted, and paved. All excavations shall be barricaded where required to meet OSHA, local and Federal Code requirements, in such a manner to prevent persons from falling or walking into any excavation.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Materials shall be furnished as required from on-site excavations or from acceptable off-site sources as required. The Contractor shall notify the Engineer of the sources of each material at least ten calendar days prior to the anticipated use of the materials.

B. In general, clean sandy excavated materials, that is free from organics, clay and construction debris, can be used as pipe bedding when construction is in a dry condition and when the bedding is not sided by muck. Pipe bedding material shall be able to pass through a 3/4-inch sieve. Separation of suitable material for pipe bedding from other material shall be made during the excavation.

C. Screened gravel shall be used for small diameter (less than 24") and plastic pipe bedding when either the trench is within the water table or when the bedding is sided by muck or muck-like material. Screened gravel shall consist of hard, durable particles of proper size and graduation, and shall be free from organic material, wood, trash, sand, loam, clay, excess fines, and other deleterious materials. The gravel shall be graded within the following limits:

Sieve Size	Percent Finer by Weight
1 inch	100
3/4 inch	99
1/2 inch	65
No. 4	2

D. Crushed stone shall be used for bedding of 24-inch and larger diameter pipe as detailed and at other locations indicated on the Drawings. Crushed stone shall be used when either side of the trench is within the water table or is sided by muck or muck-like materials. Crushed stone shall consist of hard, durable, subangular particles of proper size and graduation, and shall be free from organic material, wood, trash, sand loam, clay, excess fines, and other deleterious materials. The stone shall be graded within the following limits:

Sieve Size	Percent Finer by Weight
5/8 inch	100
1/2 inch	40 - 100
3/8 inch	15 - 45
No. 10	0 -5

E. Sand for bedding polyvinyl chloride pipe shall be a dry screened sand. Sand shall be graded sand with 100 percent passing a 3/8-inch sieve and not more than 5 percent passing a No. 200 sieve.

F. In general, clean sandy excavated material, that is free from organics clay and construction debris can be used for backfill material. All material to be used as selected backfill shall be able to pass a 3/4-inch sieve. If, in the Engineer's opinion, excavation material is unsuitable for backfill purposes, imported material having a sand equivalent value of not less than 20 percent shall be used for this portion of the trench backfill. All backfill material (placed above select backfill) shall be able to pass through a 6-inch ring. If suitable backfill is not available from the excavations, it shall be obtained from off site sources.

PART 3 – EXECUTION

3.01 EXCAVATION

A. The Contractor shall perform all excavation of every description and of whatever substance encountered, to the dimensions, grades and depths shown on the Drawings, or as directed. All excavations shall be made by open cut. All existing utilities such as pipes, poles and structures shall be carefully located, supported and protected from injury; in case of damage, they shall be restored at the Contractor's expense.

B. Pipe trenches for piping shall be excavated to a width within the limits of the top of the pipe and the trench bottom so as to provide a clearance on each side of the pipe barrel, measured to the face of the excavation, or sheeting if used, of 8 inches to 12 inches. Where the pipe size exceeds 12 inches, the clearance shall be from 12 inches to 18 inches. All pipe trenches shall be excavated to a level where suitable material is reached, a minimum of 8 inches below the excavated depth, that will allow for a minimum of 36" of covering unless otherwise indicated on the Drawings. Excavation depths in other types of materials and conditions shall be made as hereinafter specified.

C. In areas where trench widths are not limited by right-of-way and/or easement widths, property line restrictions, existing adjacent improvements, including pavements, structures and other utilities, and maintenance of traffic, the trench sides may be sloped to a stable angle of repose of the excavated material but only from a point one foot above the crown of the pipe. A substantially and safely constructed movable shield, "box" or "mule" may be

used in place of sheeting when the trench is opened immediately ahead of the shield and closed immediately behind the shield as pipe laying proceeds inside the shield.

D. Ladders or steps shall be provided for and used by workmen to enter and leave trenches.

E. Excavation for appurtenances shall be sufficient to provide a clearance between their outer surfaces and the face of the excavation or sheeting, if used, of not less than 12 inches.

F. Excavated unsuitable material shall be removed from the site and disposed of by the Contractor. Materials removed from the trenches shall be stored and in such a manner that will not interfere unduly with plant operations, traffic on public roadways and sidewalks and shall not be placed on private property. In congested areas, such materials as cannot be stored adjacent to the trench or used immediately as backfill shall be removed to other convenient places of storage acceptable to the Owner at the Contractor's expense.

G. Excavated material that is suitable for use as backfill shall be used in areas where sufficient material is not available from the excavation. All excess excavated suitable material shall be the property of the Owner and shall be delivered to a designated location within a ten-mile one-way travel distance from the site.

3.02 SHEETING AND BRACING

A. The Contractor shall furnish, place and maintain sheeting and bracing to support sides of the excavation as necessary to provide safe working conditions in accordance with OSHA requirements, and to protect pipes, structures and other Work from possible damage. Where wood sheeting or certain designs of steel sheeting are used, the sheeting shall be cut off at a level of 2 feet above the top of the installed pipe and that portion below the level shall be left in place. If interlocking steel sheeting is used, it may be removed providing removal can be accomplished without disturbing the bedding, pipe or alignment of the pipe. Any damage to the pipe bedding, pipe or alignment of the constructed utility caused by the removal of sheeting shall be cause for rejection of the affected portion of the work. The Owner may permit sheeting to be left in place at the request and expense of the Contractor.

B. If the Engineer is of the opinion that at any point sufficient or proper supports, have not been provided, he may order additional supports put in at the Contractor's expense. The Contractor shall be responsible for the adequacy of all sheeting used and for all damage resulting from sheeting and bracing failure or from placing, maintaining and removing it.

3.03 REMOVAL OF WATER

A. It is a basic requirement of these Specifications that excavations shall be free from water before pipe or structures are installed.

B. The Contractor shall provide pumps, and other appurtenant equipment necessary to remove and maintain water at such a level as to permit construction in a dry condition. The Contractor shall continue dewatering operations until backfilling has progressed to a sufficient depth over the pipe to prevent flotation or movement of the pipe in the trench or so that it is above the water table. If at any point during the dewatering operation it is determined that fine material is being removed from the excavation sidewalls, the dewatering operation shall be stopped if acceptable to the Engineer. If any of the subgrade or underlying material is disturbed by movement of groundwater, surface water, or any other reason, it shall be replaced at the Contractor's expense with crushed stone or gravel.

C. The Contractor shall use dewatering systems that include automatic starting devices, and standby pumps that will ensure continuous dewatering in the event of an outage of one or more pumps.

D. Water from the trenches and excavation shall be disposed of in such a manner as will not cause injury to public health, to public or private property, to the Work completed or in progress, to the surface of the streets, cause any interference with the use of the same by the public, or cause pollution of any waterway or stream. The Contractor shall submit his proposed methods of handling trench water and locations at which the water will be disposed of to the Engineer for review and shall receive acceptance before starting the excavation. Disposal to any surface water body will require silt screens to prevent any degradation in the water body.

3.04 TRENCH STABILIZATION

A. No claim for extras, or additional payment will be considered for cost incurred in the stabilization of trench bottoms which are rendered soft or unstable as a result of construction methods, such as improper or inadequate sheeting, dewatering or other causes. In no event shall pipe be installed when such conditions exist and the Contractor shall correct such conditions so as to provide proper bedding or foundations for the proposed installation at no additional cost to the Owner before placing the pipe or structures.

3.05 PIPE BEDDING

A. Pipe trenches shall be excavated as described in Article 3.01. The resulting excavation shall be backfilled with acceptable pipe bedding material, up to the level of the centerline of the proposed pipe barrel. This backfill shall be tamped and compacted to provide a proper bedding for the pipe and shall then be shaped to receive the pipe. Bedding shall be provided under the branch of all fittings to furnish adequate support and bearing under the fitting.

B. Any excavation below the levels required for installation of the pipe bedding shall be backfilled with acceptable bedding material, tamped, compacted and shaped to provide proper support for the proposed pipe, at the Contractor's expense.

3.06 BACKFILL

A. Pipeline trenches shall be backfilled to a level 12 inches above the top of the pipe with select backfill obtained from the excavation. Such material shall be placed in 6-inch layers, each compacted to the densities specified in Article 3.07. Only hand operated mechanical compacting equipment shall be used within six inches of the installed pipe.

B. After the initial portion of backfill has been placed as specified above, and after all excess water has completely drained from the trench, backfilling of the remainder of the trench may proceed. The remainder of the backfill shall be selected material obtained from the excavation and shall be placed in horizontal layers, the depth of which shall not exceed the ability of the compaction equipment employed, and in no event shall exceed a depth of 12 inches. Each layer shall be moistened, tamped, puddled, rolled or compacted to the densities specified in Article 3.07.

C. Any excavation below the levels required for the proper construction of manholes or vaults shall be filled with Class B Concrete. The use of earth, rock, sand or other materials for this purpose will not be permitted.

3.07 COMPACTION AND DENSITIES

A. Compaction of backfill shall be 98 percent of the maximum density where the trench is located under structures or paved areas, and 95 percent of the maximum density elsewhere. More thorough compaction may be required when Work is performed in other regulatory agencies jurisdictions, such as the DOT. Methods of control and testing of backfill construction are:

1. Maximum density of the material in trenches shall be determined by ASTM D1557.

2. Field density of the backfill material in place shall be determined by ASTM D1556 or D2922.

B. Laboratory and field density tests, which in the opinion of the Engineer are necessary to establish compliance with the compaction requirements of these Specifications, shall be ordered by the Engineer. The Contractor shall coordinate and cooperate with the testing laboratory. The testing program will be implemented by the Engineer establishing depths and locations of tests. Modifications to the program will be made as job conditions change.

C. Trench backfill which does not comply with the specified densities, as indicated by such tests, shall be reworked and recompacted until the required compaction is secured, at no

additional cost to the Owner. The costs for retesting such Work shall be paid for by the Contractor.

3.08 ADDITIONAL EXCAVATION AND BACKFILL

A. Where organic material, such as roots, muck, or other vegetable matter, or other material which, in the opinion of the Engineer, will result in unsatisfactory foundation conditions, is encountered below the level of the proposed pipe bedding material, it shall be removed to a depth of two feet below the outside bottom of the pipe or to a greater depth as directed by the Engineer and removed from the site. Sheeting shall be installed if necessary to maintain pipe trenches within the limits identified by the Engineer. The resulting excavation shall be backfilled with suitable backfill material, placed in 12-inch layers, tamped and compacted up to the level of the bottom of the proposed pipe bedding material. Sufficient compaction of this material shall be performed to protect the proposed pipe against settlement. Construction shall then proceed in accordance with the provisions of Article 3.05 "Pipe Bedding".

B. Additional excavation (more than two feet below the pipe) as indicated on the trench detail shall be performed only when ordered by the Engineer. Where organic or other material is encountered in the excavation, the Contractor shall bring the condition to the attention of the Engineer and obtain his determination as to whether or not the material will require removal, prior to preparing the pipe bedding. The excavation of material up to a depth of two feet below the outside bottom incidental items of construction and the Work shall be done at the Contractor's expense.

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SECTION 02500

SURFACE RESTORATION

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. Items specified in this Section include repairs to landscaped and grassed areas that may be damaged by Contractor activities and relocation of existing trees.

B. Australian Pines, Brazillian Pepper, and other exotic species (as identified by Owner) shall not be replaced.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Asphaltic Concrete Pavement.

B. Pavement Marking and Traffic Signs.

C. Portland Cement Concrete Paving.

1.03 SUBMITTALS

A. The Contractor shall submit submittals for review in accordance with the Section entitled "Submittals".

1.04 DEFINITIONS

A. The phrase "DOT Specifications" shall refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications are referred to herein and are hereby made a part of this Contract to the extent of such references, and shall be as binding upon the Contract as though reproduced herein in their entirety.

1.05 PROTECTION OF EXISTING IMPROVEMENTS

A. The Contractor shall be responsible for the protection of all pavement and other improvements within the work area. All damage to such improvements, as a result of the Contractor's operations, shall be repaired by the Contractor at his expense, as specified hereinafter.

1.06 GUARANTEE

A. The Contractor shall guarantee all trees, ground cover or shrubs planted or replanted under this Contract for a period of one year beyond acceptance of the project. In the event that any new tree, plant or shrub dies within the guarantee period, the Contractor shall be responsible for replacement in kind. In the event that a transplanted (reused) tree dies within the guarantee period, the Contractor shall be responsible for replacement in kind, except that the maximum height of any new tree shall be eight feet as measured from the ground surface, once planted, to the top of the tree.

PART 2 – PRODUCTS

2.01 SOD

A. Sod shall be replaced to the original or better than original conditions, or as specified by the Owner.

2.02 REPLACEMENT TREES, GROUND COVER AND SHRUBS

A. Replacement trees, ground cover and shrubs shall be of the same type and size and be sound, healthy and vigorous, well branched and densely foliated when in leaf. They shall have healthy, well developed root systems and shall be free of disease and insect pests, eggs or larvae.

2.03 MULCH

A. Mulch shall be windproof shredded eucalyptus, clean, fresh, free of branches and other foreign matter. Mulch shall be used around all shrubs, ground covers and tree trunks, and placed to a minimum depth of 2 inches.

PART 3 – EXECUTION

3.01 GRADING AND SODDING

A. The Contractor shall regrade the work areas disturbed by his construction activities to the existing grades prior to commencement of construction.

B. Sod shall be placed on all grassed areas disturbed by construction activities. Sodding shall be in accordance with Section 02934 Sodding of these Specifications.

C. Maintenance: Sufficient watering shall be done by the Contractor to maintain adequate moisture for optimum development of the sodded areas. Sodded areas shall receive no less than 1.5 inches of water per week.

D. Repairs to Lawn Areas Disturbed by Contractor's Operations: Lawn areas planted under this Contract and lawn areas outside the designated areas damaged by Contractor's operations shall be repaired at once by proper sod bed preparation, fertilization and resodding, in accordance with these specifications.

3.02 TREES, GROUND COVER AND SHRUBS

A. Excavation and Plant Holes: Plant hole excavations shall be roughly cylindrical in shape, with the side approximately vertical. Plants shall be centered in the hole. Bottoms of the holes shall be loosened at least six inches deeper than the required depth of excavation.

B. Holes for balled and burlapped plants shall be large enough to allow at least eight inches of backfill around the earth ball. For root balls over 18 inches in diameter, this dimension shall be increased to 12 inches. Where excess material has been excavated from the plant hole, the excavated material shall be disposed of as and where directed by the Engineer.

C. Setting of Plants: When lowered into the hole, the plant shall rest on a prepared hole bottom such that the roots are level with, or slightly above, the level of their previous growth and so oriented such as to present the best appearance. The Contractor, when setting plants in holes, shall make allowances for any anticipated settling of plants.

D. Palms of the sabal species may be set deeper than the depth of their original growth, provided that the specified clear trunk height is attained.

E. The backfill shall be made with planting mixture as specified herein before and shall be firmly rodded and watered-in, so that no air pockets remain. The quantity of water applied immediately upon planting shall be sufficient to thoroughly moisten all of the backfilled earth. Plants shall be kept in a moistened condition for the duration of the Contract.

F. Staking and Guying: Plants shall be staked in accordance with the following provisions:

1. Small Trees: For trees and shrubs of less than one-inch caliper, the size of stakes and the method of tying shall be such as to rigidly support the staked plant against damage caused by wind action or other effects. Trees larger than one inch and smaller than one and one-half inch caliper shall be staked with a two-inch stake, set at least 24 inches in the ground and extending to the crown of the plant. The plant shall be firmly fastened to the stake with two strands of 14-gauge soft wire, enclosed in rubber hose, or other approved covering. The wire shall then be nailed or stapled to the stake to prevent slippage.

2. Medium Trees: All trees, other than palm trees, larger than one and one-half inch caliper and smaller than two and one-half inch caliper shall be staked with two or more, two-inch by two-inch stakes, eight feet long, set two feet in the ground. The tree shall be midway between the stakes and held firmly in place by two strands of 12-gauge wire, applied as specified above for single stakes. The wires shall be tightened and kept tight by twisting.

3. Large Trees: All trees, other than palm trees, larger than two and one-half inch caliper, shall be guyed from at least three points with double strands of 12-gauge wire. Guy wires shall be anchored' to two-inch by four-inch stakes, 24 inches long, driven into the ground at least two feet and sufficient that the top of the stake is at least three inches below the finished ground level. In firm rock soils, Number 4 steel reinforcing rods or one-half inch pipe may be used instead of stakes. Tie wires shall be securely fastened to the tree by means of a collar of rubber hose, or other approved material. Guy wires shall be tightened and kept tight by twisting.

4. Palm Trees: Palm trees shall be braced with three or more two-inch by four-inch wood braces, toenailed to cleats which are securely banded at two points to the palm, at a point at least six feet above the ground. The trunk shall be padded with five layers of burlap under the cleats. Braces shall be approximately equidistantly spaced and secured underground with two-inch by four-inch by 24-inch stake pads. In firm rock soils, Number 4 steel reinforcing rods or one-half inch pipe is acceptable.

G. Pruning: All broken or damaged roots shall be cut off smoothly, and the tops of all trees shall be pruned in a manner complying with standard horticultural practice. At the time pruning is completed, all remaining wood shall be alive. All cut surfaces of one inch or more in diameter, above the ground, shall be treated with an approved commercial tree paint.

H. Maintenance: Maintenance shall begin immediately after each plant is planted and shall continue until all work under this Contract has been completed and accepted by the Owner. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated and otherwise maintained and protected. Settled plants shall be reset to proper grade position, planting saucer restored and dead material removed. Guys shall be tightened and repaired.

I. Defective work shall be corrected as soon as possible after it becomes apparent. Upon completion of planting, the Contractor shall remove excess soil and debris, and repair any damage to structures, etc., resulting from planting operations.

- END OF SECTION -

SECTION 02510

ASPHALTIC CONCRETE PAVEMENT

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. Construct asphaltic concrete pavement in accordance with the lines, grades and typical section as indicated on the Drawings, specified herein and as required for a complete installation.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. DOT Specifications: The phrase "DOT Section", shall refer to the Section specified in Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications, are referred to herein and are hereby made a part of this Contract to the extent of such references, and shall be as binding upon the Contract as though reproduced herein in their entirety.

DOT 160	Stabilizing
DOT 200	Limerock Base
DOT 300	Prime and Tack Coats for Base Courses
DOT 320	Hot Bituminous Mixtures - Plant Methods and Equipment
DOT 330	Hot Bituminous Mixtures - General Construction Requirements
DOT 331	Type S Asphaltic Concrete
DOT 337	Asphaltic Concrete Friction Courses
DOT 902	Fine Aggregate
DOT 911	Limerock Material for Base and Stabilized Base
DOT 916	Bituminous Materials

1.03 SUBMITTALS

A. The Contractor shall submit his proposed formula for the asphaltic concrete paving for review in accordance with Section 01300 - Submittals.

1.04 QUALITY CONTROL

A. The phrase "DOT Specifications" shall refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications, are referred to herein and are hereby made a part of this Contract to the extent of such references, and shall be as binding upon the Contract as through reproduced herein in their entirety.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Limerock Base

1. The limerock base shall consist of either one or two courses of Miami or Ocala limerock or crushed coquina in accordance with Section 200 and 911 of the DOT Specifications.

B. Prime Coat

1. The material used for the prime coat shall be cut-back Asphalt Grade RC-70 conforming to Sections 300 and 916 of the DOT Specifications for prime to be used on Miami Oolite formation limerock.

C. Tack Coat

1. The material used for the tack coat shall be Emulsified Asphalt Grade RS-2 conforming to Sections 300 and 916 of the DOT Specifications. The complete site shall receive a final tack coat to provide a uniform finish for all new and existing paving at the plant site.

D. Asphaltic Concrete

1. The materials and construction of the asphaltic concrete patch and surface courses shall be Type S-I Asphaltic Concrete conforming to Sections 330, 331 and 916 of the DOT Specifications.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Roadway subgrades shall be stabilized to the minimum depth shown on the Drawings to a Limerock Bearing Ratio of not less than 40. Stabilizing shall be Type B as defined in Section 160 of the DOT Specifications. Stabilization may require the addition and thorough mixing in of crushed limerock, course limerock screenings, or any other stabilizing material acceptable to the Owner. The stabilizing material shall be applied in such quantity that, after mixing and blending, the subgrade will have a LBR of not less than 40. Stabilizing material shall be mixed or blended in the subgrade material by plowing, scarifying, disking, harrowing, blading and mixing with rotary tillers until the mixed materials are of uniform bearing value throughout the width and depth of the layer being processed.

B. At least three density determinations shall be made on each day's final compaction operations on each course and the density determinations shall be made at more frequent intervals if deemed necessary by the Owner.

C. The limerock base shall be constructed in accordance with Section 200 of the DOT Specifications, to the thickness and width indicated on the Drawings.

D. After spreading of the base material is completed, the entire surface shall be scarified and shaped so as to produce the exact grade and cross section after compaction. For double course base, this scarifying shall extend a depth sufficient to penetrate slightly the surface of the first course. The maximum depth of each lift shall be 8-inches.

E. When the material does not have the proper moisture content to insure the required density, wetting or drying shall be required. If the material is deficient in moisture, water will be added and uniformly mixed in by disking the base course to its full depth. If the material contains an excess of moisture, it shall be allowed to dry before being compacted. As soon as proper conditions of moisture are attained, the material shall be compacted to an average density not less than 98 percent maximum density as determined in more than one course, the density shall be obtained in each lift of the base.

F. During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross section, the compacting operations for such areas shall be completed prior to making the density determination on the finished base.

G. Unless otherwise directed by the Owner, the surface shall be "hard-planed" with a blade grader immediately prior to the application of the prime coat to remove the thin glaze or cemented surface and to allow free penetration of the prime material. The materials planed from the base shall be removed from the base area.

H. If cracks or checks appear in the base, either before or after priming, which in the opinion of the Owner, would impair the structural efficiency of the base course, the Contractor shall remove such cracks or checks by rescarifying, reshaping, adding base material where necessary and recompacting, at no additional cost to the Owner.

I. If at any time the subgrade material shall become mixed with the base course material, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.

J. The prime coat shall be applied at a rate of 0.15 gallons per square yard and the Work performed in accordance with Section 300 of the DOT Specifications.

K. The tack coat shall be applied at a rate between 0.02 and 0.10 gallons per square yard and the Work performed in accordance with Section 300 of the DOT Specifications.

L. The spreading, compacting and jointing the wearing surface shall be in accordance with Sections 330 and 331 of the DOT Specifications to the thickness indicated on the Drawings.

3.02 PAVEMENT REPAIR

A. All damage to pavement as a result of Work under this Contract shall be repaired in a manner satisfactory to the Owner and at no additional cost to the Owner. The repair shall include the preparation of the subgrade, the placing and compacting of the limerock base, the priming of the base, the placing and maintaining of the surface treatment, all as specified herein.

B. The width of all repairs shall extend at least 12 inches beyond the limit of the damage. The edge of the pavement to be left in place shall be cut to a true edge with a saw or other acceptable method so as to provide a clean edge to abut the repair. The line of the repair shall be reasonably uniform with no unnecessary irregularities.

- END OF SECTION -

SECTION 02574

PAVEMENT REMOVAL AND REPLACEMENT

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall cut, remove, protect, and replace existing pavements of the various types encountered including, roadways, driveways, sidewalks, curbs, and combination curb and gutter.

B. Protection of Existing Improvements: The Contractor shall be responsible for the protection of all pavements, sidewalks, and other improvements within the work area. All damage to such improvements, as a result of the Contractor's operations, beyond the limits of the Work of pavement replacement as described herein, shall be repaired by the Contractor at his expense.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Materials including limerock, bituminous prime and tack coat, and asphaltic concrete for the above Work shall meet the requirements established therefore by the FDOT Specifications.

1. Limerock shall be Miami or Ocala Limerock, or crushed coquina.

2. Bituminous prime coat material shall be cutback asphalt Grade RC-70.

3. Bituminous tack coat material shall be emulsified asphalt Grade RS-2.

4. Asphaltic concrete shall be Type S-I or S-III, determined by the engineer.

PART 3 – EXECUTION

3.01 PREPARATION

A. Pedestrian or school crossings: Where the work crosses or interferes with school or pedestrian crossings, extreme care shall be taken by the Contractor to ensure the safety of school children or other pedestrians.

3.02 PERFORMANCE

A. Removals

1. Pavement Removal: Where existing pavement is to be removed, the surfacing shall be mechanical saw cut prior to trench excavation, leaving a uniform and straight edge, with minimum disturbance to the remaining adjacent surfacing. The width of cut for this phase of existing pavement removal shall be minimal.

2. Sidewalk, Drive, and, Curb Removal: Concrete sidewalks, curbs, combination curb and gutter, walks, drive ribbons, or driveways shall be removed by initially sawing the structure with a suitable power saw as specified above for pavement. When a formed joint in the concrete exists within three (3) feet of the proposed saw cut and parallels the proposed saw cut, the removal line shall be extended to the formed joint. After sawing, the material shall be removed.

B. Restorations

1. General: Street or roadway pavement cut and removed in connection with trench excavation shall be replaced or restored in equal or better condition than the original and as shown on the Drawings. All restorations shall be a complete overlay of the road surface.

2. Pavement Restoration - Asphalt:

a. Limerock base course shall be compacted for its full thickness to not less than 98 percent of maximum density as determined by AASHTO T-180.

b. Construction methods and equipment shall generally meet the requirements therefore as established in the FDOT Specifications, but shall be modified to meet the relatively narrow strip construction conditions. Any such modifications shall be approved by the Owner prior to their use.

c. Joints with existing surface and base shall be straight and neat. If it is necessary to obtain a straight net joint, the Contractor shall cut out sufficient existing material and replace it with new material.

d. The upper surface of the completed base course shall be compacted to an elevation to permit the full depth of the surface course to be at the pavement surface. The completed surface shall match the line and grade of the existing surface. When pavement is removed to the edge of the roadway, the replaced base course shall extend not less than six (6) inches

beyond the edge of the surfacing constructed without deviating from the grade.

3. Driveway Restoration - Asphalt: Driveway pavement with limerock base cut and removed in connection with trench excavation shall be replaced or restored as specified above for street or roadway pavement, with the exception that the new limerock base course shall equal the existing base course in thickness, except that in no case shall new driveway base course be less than six (6) inches in thickness. Muck or unsuitable material found under existing driveway construction will not be removed and replaced.

4. Concrete, Sidewalk, Walkway, Driveway Ribbon, and Curb Restoration:

   a. Concrete sidewalks, walkways, driveways, driveway ribbons, and curbs required to be removed for the installation of facilities under this Contract shall be restored. Class B concrete shall be used in all cases.

   b. Replaced portions of these items shall conform to the lines, grades, and cross sections of the removed portions. Concrete sidewalks and walkways shall be of 6-inch thickness; concrete driveways and driveway ribbons shall be of 6-inch thickness. Replaced concrete curb and/or gutter shall joint neatly to the remaining section.

5. Pavement Restoration - Concrete: Rigid pavement shall be replaced in kind with Class B concrete, using high early strength cement.

- END OF SECTION -

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SECTION 02580

PAVEMENT MARKING AND TRAFFIC SIGNS

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. This section consists of striping pavement and traffic signs that may be damaged by Contractor activities as indicated on the Drawings, specified herein and as required for a complete installation.

1.02 RELATED ITEMS SPECIFIED ELSEWHERE

A. Asphaltic concrete pavement.

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. DOT Specifications: The phrase "DOT Section" shall refer to the Section specified in Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications, are referred to herein and are hereby made a part of this Contract to the extent of such references, and shall be as binding upon the Contract as though reproduced herein in their entirety.

DOT 700	Highway Signing
DOT 710	Painting Traffic Stripes
DOT 971	Paint Materials
DOT 993	Highway Delineators

1.04 SUBMITTALS

A. The Contractor shall submit shop drawings and other information to the Engineer for review in accordance with Section 01300 - Submittals.

1.05 QUALITY ASSURANCE

A. All road work shall be in compliance with local and state codes, standards and regulations, the State of Florida "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways" and "Manual of Traffic Control and Safe Practices for the Streets and Highway Construction Maintenance and Utility Operation."

1.06 GUARANTEE

A. The Contractor shall furnish the manufacturer's certification that all signs furnished conform to these specifications and shall replace or repair at his expense all signs that fail to meet this requirement.

PART 2 – PRODUCTS

2.01 PAVEMENT MARKING

A. Paint for pavement strips shall be reflectorized in conformance with DOT Sections 710 and 971.

2.02 TRAFFIC SIGNS

A. General: Traffic regulating signs shall conform to the colors, dimensions and requirements of Reflectorized Signs as specified in DOT Section 700 and displaying the lettering and symbols indicated on the Drawings.

B. Sign Panels and Support Members: Sign panels and support members shall conform to Aluminum Association Alloy 6061-T6.

C. Bolts: Bolts shall conform to Aluminum Association Alloy 2024-T4 with an anodic coating 0.0002 inches thick minimum and chromate sealed.

D. Nuts: Nuts shall conform to Aluminum Association Alloy 6269-T9.

E. Reflective Sheeting: Reflective sheeting shall conform to DOT Section 700, Type A requirements.

PART 3 – EXECUTION

3.01 FABRICATION

A. Preparation of sign blanks and fabrication of reflectorized faces shall conform to the applicable requirements of DOT Sections 700-4 and 700-5.

3.02 INSTALLATION

A. Sign and supports shall be erected in accordance with the applicable details and specifications of DOT.

- END OF SECTION -

SECTION 02750
PORTLAND CEMENT CONCRETE PAVING

PART 1 – GENERAL

1.01 WORK INCLUDED

A. Provide labor, materials, equipment transportation, and services to complete the construction of walks and other concrete areas and the installation Portland Cement Concrete Paving work, as indicated on the drawings, as specified herein, or both.

B. Including, but not necessarily limited to the following:

1. Fill, subgrade, and lime rock base
2. Concrete form work
3. Concrete reinforcement
4. Concrete paving
5. Thrust blocks for waterlines

1.02 RELATED WORK

A. Division 2- Fine Grading

1.03 QUALITY ASSURANCE

A. Inspection and Testing:

1. Test Cylinders- ASTM C-39
   a. Minimum of three (3) concrete test cylinders shall be taken for every 50 or less cubic yards of concrete placed.

   b. Minimum of one (1) additional test cylinder shall be taken during any cold weather concreting, and be cured on job site under same conditions as the concrete in represents.

2. Slump Test – ASTM C-143
   a. Minimum of one (1) slump test shall be taken for each set of test cylinders taken.

1.04 SUBMITTALS

A. Test reports of concrete compression, yield, air content, and slump tests.

B. Certificates

1. Manufacturer's certification that materials meet specification requirements.

2. Material content per cubic yard of each class of concrete furnished.

   a. Dry weights of cement
   b. Saturated surface-dried weights of fine and coarse aggregate
   c. Quantities, type, and name of admixtures
   d. Weight of water

3. Ready-mix delivery tickets, ASTM C-94

C. Shop Drawings

1. Show sizes and dimensions for fabrication and placing of wire mesh or reinforcing steel and bar supports.

2. Indicate bar schedules, stirrup spacing, and diagrams of bend bars.

3. Detail items of form systems affecting appearance of architectural concrete surfaces such as joints, tie holes, liners, patterns, and textures. Show items in relation to entire form system.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver reinforcement to project site in bundles marked with metal tags indicating bar size and length.

B. Handle and store materials to prevent contamination.

1.06 PROJECT CONDITIONS

A. Allowable concrete temperatures

1. Hot Weather: Maximum 90°F as per ASTM C-94

B. Do not place concrete during rain, unless protection is provided.

PART 2 – MATERIALS

2.01 READY-MIXED CONCRETE

A. Cement

1. ASTM C-150, Normal Type 1

B. Admixtures

1. Air entraining: ASTM C-260-77

2. Water –Reducing: ASTM C494-82, Type A

3. Water-Reducing and Retarding: ASTM C494-92, Type D

4. Do not use calcium chloride or admixtures containing more than one percent (1%) chloride ions.

C. Coarse Aggregate

1. Not less than 50% clean, hard, crushed, stone conforming to requirements of Table 2, size number 467 ASTM C-33.

D. Slump 3-inch maximum; plus tolerance 0, minus tolerance 1 inch.

E. Air Content: 5%, +/- 1%

F. Mix Proportioning

1. 28-day compressive strength of moist cured laboratory samples 3,500 PSI.
2. Minimum cement content five stacks/cubic yard.

G. Curing Material: Liquid membrane, ASTM C-309, Type 1

H. Clear Sealer

1. Clear as manufactured by Guardian Chemical Company, or approved equal.

I. Mixes

1. ASTM C-94

2. Mix concrete only in quantities for immediate use.

3. Do not retemper or use set concrete.

2.02 REINFORCEMENT

A. Reinforcing Steel Bars

1. 60 PSI yield strength; deformed billet steel bars; ASTM A-615, plain finish

B. Tie Wire

1. FS QQ-Wj-461-G, annealed steel, black, 16ga minimum.

C. Bar Supports

1. Conform at "Bar Support Specifications", CRSI Manual of Standard Practice.

2.03 FORMWORK AND ACESSORIES

A. Formwork: Matched tight fitting and adequately stiffened to support weight of concrete without deflection, detrimental to tolerance and appearance of concrete, conform with ACI 347, Chapter 3, Material and Form Work.

B. Lumber

1. Softwood framing lumber: kiln dried, PS-20.

2. Boards less than 1.5-inches thick and 2 inch used for basic forms and form liners: Kiln dried.

3. Grade-marked by grading rules agency approved by American Lumber Standards Committee.

4. Light framing or studs for board or plywood forms, 2-inch to 4-inch width and thickness Construction Standard grade.

5. Boards for basic forms Construction Standard grade.

6. Board surface: smooth.

C. Plywood

1. Exterior type softwood plywood, PS 1-66.

2. Each panel stamped or branded indicating veneer grades, species, type, and identification.

3. Wood faced plywood for architectural concrete surfaces.
   a. Panel veneer grades: B-C.
   b. Mill-oiled sides and mill sealed edges of panels.

D. Ties

1. Material: stainless steel

2. Type: snap ties

3. Depth or break back: 1 inch

4. Maimum diameter: ¼ inch

E. Form Coatings

1. Non-staining type

2. Agent: pine oil derivative

2.04 WATER

A. Clean and potable.

2.05 GROUT

A. Non-Shrink Grout

1. Premixed, nonferrous, cementitious mixture with a 28-day strength of at least 6,000 PSI. Mixtures to be placed in excess of a one-inch (1") thickness may include 3/8" pea gravel.

2.06 EXPANSION JOINT

A. Joint Material: Joint sealer is to be gray Sonolastic SLI, manufactured by Rexword Chemical Products, Inc., Minneapolis, MN or approved equal.

PART 3 – EXECUTION

3.01 BARRICADES

A. Provide temporary barricades around areas of operation and maintain until work under this section is completed and approved.

B. Install temporary traffic, markers, signals, and signs to:

1. Eliminate potential hazardous conditions.

2. Maintain adequate traffic patterns free of conflict with work under this contract.

3.02 PREPARATION OF SUBGRADE

A. Bring subgrade to required elevations. The finished subgrade shall be maintained in a smooth compact condition and any areas which are disturbed prior to placing of the concrete shall be restored at the Contractor's expense. The subgrade shall be moist at the time the concrete is placed. Water shall be uniformly applied ahead of the pouring operations as directed by the Owner's representative. Debris and obstruction shall be removed to a minimum depth of 6 inches (6") below the finished subgrade elevation, and the space shall be back filled with sand, base course material, or other suitable material which shall be thoroughly compacted by rolling or tamping.

B. Fill soft spots and hollows with additional fill. The subgrade shall be accurately trimmed to the required elevation with a ¼ inch tolerance. High areas shall be trimmed to proper elevation. Low areas may be filled with suitable material and compacted to the specified density or filled with concrete integrally with the placing of the pavement

C. Level and compact subgrade to receive rock base for concrete walks, curbs, and gutters, to 98% compaction per AASHTO T-180.

3.03 FORMWORK

A. Design, construct, and remove for safety of formwork and shoring.

B. Provide forms to shape, lines, and dimensions of members shown: substantial tight enough to prevent leakage, and properly braced or tied to maintain position and size, and form sides and bottoms of members.

C. Fill voids of plywood joints with sealant and tool smooth.

D. Form vertical surfaces to fill depth and securely position to required lines and levels. Do not place form ties to pass through concrete.

E. Arrange and assemble formwork to permit easy dismantling and stripping, and to prevent damage to concrete formwork removal.

3.04 REINFORCING

A. Reinforce concrete walks, curbs, and gutters as shown on the plans and details. Allow for minimum 2-inch concrete cover.

B. Do not extend reinforcing through expansion and contraction joints. Provide doweled joint through expansion and contraction joints, with one end of dowels fitting with capping sleeve to allow free movement.

3.05 FORMING EXPANSION AND CONTRACTION JOINTS

A. Place expansion joints as shown on the drawings (approximately 30' O.C. spacing) and contraction joints as shown on the drawings (approximately 5' O.C.). Where curbs abut walks, make joints coincide. When sidewalks abut building, provide continuous joint filler.

B. Fit joints with filler of required profiles, set perpendicular to longitudinal axis of walks, curbs, and gutters. Recess ½ inch below finished concrete surface.

3.06 INSPECTION

A. Assure that excavation and formwork are completed and excess water is removed.

B. Check that reinforcement is secured in placed.

C. Verify that expansion joint material, anchors, and other embedded items are secured in position.

3.07 PREPARATIION FOR POURS

A. Notify the Owner and other inspectors at least 24 hours prior to inspection.

B. Equipment forms and reinforcing shall be clean and wet down, reinforcing firmly secured in place, runways set up and not resting on or displaying reinforcing.

3.08 PLACING CONCRETE

A. Mixing and conveying shall be as per ASTM C-94 and as follows:

1. Maximum elapsed time from addition of water to placing in forms – 90 minutes (total mixing time). Do not place partially hardened concrete.

2. Concrete handled and placed by methods which keep concrete plastic, prevent separation of materials, and do not displace reinforcement.

B. Deposit as close as possible to final position to avoid segregation of materials. Restrict drop to 3-foot maximum (less for exposed concrete), using tremie if necessary. Do not allow concrete to spill over forms when placing. Use shovels for hand spreading, not rakes. The concrete shall be distributed on the subgrade to such depth that, when it is consolidated and finished, the thickness required by the drawings will be obtained at all points and the surface will at no point be below the grade specified for the finished surface. The concrete shall be deposited on the subgrade in a manner which will require as little re-handling as possible. Placing of the concrete shall be continuous between transverse joints, without the use of intermediate bulkheads.

1. Compact by mechanical vibration to thoroughly work around reinforcing and eliminate honeycomb.

C. Place concrete in accordance with ACI 301.

D. Hot Weather Placement: ACI 301

E. Cold Weather Placement: ACI 301.

F. Space concrete around gangs of parallel conduit.

G. Ensure reinforcement, inserts, embedded parts, and formed joints are not disturbed during concrete placement.

H. Maintain concrete cover around reinforcing as follows:

Item	Coverage
Walls (exposed to weather to backfill)	2 inch
Footing and Concrete Formed Against Each	3 inch
Slabs on Fill	2 Inch

Do not place concrete within 25 feet (25') of workmen who are placing or securing reinforcing.

I. Place concrete continuously between predetermined construction and control joints. Do not break or interrupt successive pours such that cold joints occur.

J. Separate exterior slabs on fill from vertical surfaces with joint filler. Extend joint filler from bottom of slab to within ½ inch of finished slab surface.

K. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Owner's Representative upon discovery.

L. Bond joint between hardened and fresh concrete as follows: roughen surface, clean off foreign matter and laitance, and dampen with water.

M. Round edges, including edges of expansion and contraction joints, with ½ inch radius edging tool.

N. Where concrete curbs are adjacent to pavement slabs, make concrete curbs and gutters integral with slabs. Make expansion and contraction joints of curbs coincide with slab joints.

O. Do not vary finished surfaces from true lines, levels, or grade by more than 1/8 inch in 10 feet when measured with straightedge.

P. Apply curing compound on finished surfaces immediately after placement. Apply in accordance with manufacturer's recommendations.

Q. Saw cutting will not be permitted.

R. Striking-Off, Consolidating and Finishing Concrete: Immediately after placing, the concrete shall be struck off, consolidated and finished, to produce a finished product conforming to the cross section, width and surface finish required by the Drawings and Specifications.

S. Contraction Joints: Provide contraction joints, sectioning concrete into areas as shown on the Drawings. Construction joints for a depth equal to at least ¼ concrete thickness, as follows:

1. Tooled Joints: Form joints in fresh concrete by grooving top portion with a recommended cutting tool and finishing edges with jointer.

2. Sawed Joints: If required, form joints using powered saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut joints into hardened concrete as soon (no more than 12 hours) as surface will not be torn, abraded, or otherwise damaged by cutting action.

3. Contraction joints shall be placed at intervals equal to the width of the slab for walks; intervals shall not exceed 10 feet.

4. Contraction joints from concrete banding shall be at 10 foot intervals.

3.09 CONCRETE FINISHING

A. Unexposed concrete work shall be patched and repaired immediately after removal of forms.

1. Cut off metal ties a minimum of one inch (1") back from surface on concrete.

2. Moderate honeycomb cut out of prepared for patching. Severe honeycomb with exposed steel reinforcing is to be removed and replaced.

3. Wet areas for patching and pack carefully with rich mortar rubbed to match surface.

B. Provide concrete surfaces to be left exposed, walls, columns, beams, with smooth rubbed finish.

C. Concrete work cross slope shall be 1% minimum/ 2% maximum. Longitudinal sloping shall meet current ADA requirements.

D. Exposed concrete work shall be patched and repaired as accepted by Owner's Representative after consultation. Patching and rubbing will be kept to a minimum if possible, but when necessary will be done with great care to obtain maximum degree of matching in color and texture to adjacent finished concrete surfaces.

E. Monolithic finish using care to obtain a level of surface; floors out of level or with variation greater than 1/8 inch to 10 feet shall be corrected.

F. All finishes shall be as called for on the drawings.

G. Concrete Finishes:

1. After striking-off and consolidating concrete, smooth the surface by screeding and floating. Use hand methods only where mechanical floating is not possible. Adjust the floating to compact the surface and produce a uniform texture. The use of additional water will be prohibited in all phases of the finishing.

2. After floating, test surface for trueness with a 10-foot straightedge. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish.

3. Work edges of gutters, back top edge to curb, score lines and formed joints with an edging tool and round to ½" radius, unless otherwise indicated. Eliminate any tool marks on concrete surface.

4. After completion of floating, and when excess moisture or surface sheen has disappeared, complete surface finishing.

5. Do not remove forms for 24 hours after concrete has been placed. After form removal, clean ends of joints and point-up any minor honeycombed areas on exposed banding. Remove and replace areas or sections with major defects.

H. General: Construction expansion, contraction, and construction joints true-to-line with face perpendicular to surface of the concrete, unless otherwise indicated. Construct transverse joints at right angles to the centerline, unless otherwise indicated.

I. Curing:

1. After the finishing operations have been completed and as soon as the concrete has hardened sufficiently that marring of the surface will not occur, the entire surface and the edges of the newly placed concrete shall be water cured by misting or covering with a double thickness of burlap, cotton mats, or other approved material kept thoroughly saturated with water.

2. The forms shall be kept wet until removed and upon removal, the curing specified herein shall be started immediately.

3. Concrete shall be cured for a period of 7 days for normal Portland cement or 4 days for high early strength cement.

4. Concrete poured in the dry shall not be submerged until it has attained sufficient strength to adequately sustain the stress involved, nor shall it be subjected to flowing water across the surface for 4 days.

5. Curing for stand gray work after finishing, cure concrete by keeping moist for one (1) week after placement. Floors and vertical surfaces may be sprayed with an approved curing compound to retard evaporation of water, if spraying is not objectionable because of future finishing

requirements. Begin curing operations as soon as the concrete has attained its initial set. Keep exposed concrete surface moist for at least one (1) week.

3.10 CONCRETE PATCHING AND REPAIRS

A. General: Do not patch until concrete has been reviewed by Owner's Representative. Repair surface defects, including tie holes, immediately after form removal. Dampen the area to be patched and an area at least six inches (6") wide surrounding it to prevent absorption of water from the patching mortar.

B. Removal of Defective Concrete: Remove all honeycombed and other defective concrete down to sound concrete. Cut edges perpendicular to the surface and cut back from true line a minimum of one inch (1") over the entire area. Avoid feathered edges.

C. Bonding Grout: Thoroughly dampen surfaces to be patched and apply a coat of bonding grout brushed into the surface. Prepare grout of one-part cement to one-part fine sand passing a No. 30 sieve and to the consistency of thick cream.

D. Patching Mortar: Make the patching mortar of the same materials and of approximately the same proportions used for the concrete, except omit the coarse aggregate and make the mortar of not more than one (1) part of cement to two and one-half (2.5) parts sand by damp loose volume. Add no more mixing water than necessary for handling and placing. Mix the patching mortar in advance to allow to stand with frequent manipulation with a trowel, without the addition of water, until it has achieved the stiffest consistency that will permit placing.

E. Placing Patching Mortar: After the bonding grout begins to lose its water sheen, apply the patching mortar. Thoroughly consolidate patching mortar into place and strike off so as to leave the patch slightly higher than the surrounding surface. Leave undisturbed for one (1) hour to permit initial shrinkage and then finish.

F. Accomplish all repairs in such a manner that the completed surface will conform to the finish requirements of the specification using methods that will not disturb the bond or cause sagging or horizontal fractures. Provide surfaces of said repairs with the same din and amount of curing treatment as required for the concrete in the unrepaired section.

G. Tie Holes: After being cleaned and thoroughly dampened, fill the tie holes solid with patching mortar.

H. Temperature and Shrinkage Cracks: Repair temperature and shrinkage cracks which develop prior to final acceptance of the work.

I. Major Defective Areas: If the defects are serious or affect the strength of the structure, or if patching does not satisfactorily restore the quality and appearance to the surface, the Owner's representative may require the concrete to be removed and replaced complete in accordance with the provisions of this section. This shall be done at no additional cost to the Owner.

3.11 DEFECTIVE CONCRETE

A. Modify or replace concrete not conforming to required levels and lines, details, and elevations.

B. Repair or replace concrete not properly placed or of the specified type.

3.12 FIELD QUALITY CONCRETE

A. Field inspection and testing will be performed in accordance with Section 01400, Testing and Inspection.

B. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.13 PROTECTION

A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

C. During curing period, protect concrete from damaging mechanical disturbances, water flow, loading, shock, and vibration.

3.14 CLEAN-UP

A. Remove debris and excess material immediately from project site.

B. Take down barricades and temporary traffic markers, signals, and signs only after work included in this section is finished and inspected.

C. Leave project area neat, orderly, and free of any hazardous conditions.

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SECTION 02751

PREPARATORY CLEANING AND ROOT REMOVAL

PART 1 – GENERAL

1.01 SCOPE

A. This Section covers the preparatory cleaning of storm sewer lines and manholes as needed prior to the internal survey of the storm sewer lines by closed-circuit television. It also covers the preparatory cleaning and root removal from storm sewer lines and the cleaning of manholes/inlets prior to rehabilitation. The Contractor shall furnish all necessary material, labor, equipment and services required for cleaning the specific sewer lines.

1.02 GENERAL

A. Storm Sewer Line Cleaning: The intent of pipe line cleaning is to remove foreign materials from the lines and restore the pipe to a minimum of 95% of the original carrying capacity or as required for proper seating of internal pipe joint sealing packers. Since the success of other phases of work depends a great deal on the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, they should be brought to the Owner's attention immediately, so that a determination may be made as to whether or not the Contractor will be required to clean those specific sections. If, in the course of normal cleaning operations, damage does result from preexisting and unforeseen conditions such as broken pipe, the Contractor shall immediately contact the Owner. Damage caused by the Contractor's negligence shall be repaired or replaced at the Contractor's expense.

B. Manhole/Inlet Cleaning: All concrete and masonry surfaces must be cleaned prior to repair. Grease, laitance, loose bricks, mortar, unsound concrete, and other materials must be completely removed. Water blasting (minimum 3500 psi) utilizing proper nozzles shall be the primary method of cleaning; however, other methods such as wet or dry sandblasting, acid wash, concrete cleaners, degreasers or mechanical means may be required to properly clean the surface. Surfaces on which these other methods are used shall be thoroughly rinsed, scrubbed, and neutralized to remove cleaning agents and their reactant products.

1.03 HYDRAULIC CLEANING EQUIPMENT

A. Hydraulically Propelled Equipment: The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time

during the cleaning operation to protect against flooding of the storm sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of debris. If sewer cleaning balls or other equipment which cannot be collapsed are used, special precautions to prevent flooding of the storm sewers and public or private property shall be taken.

B. High-Velocity Jet (Hydrocleaning) Equipment: All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole/inlet walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

C. Mechanically Powered Equipment: Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 750 feet of rod. The rod shall be specifically heat-treated steel. To insure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 GENERAL

A. The designated storm sewer sections and associated inlets shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the storm sewer lines and manholes. If cleaning of an entire sewer section cannot be successfully performed from one inlet, the equipment shall be set up on another inlet and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire pipe section, it will be assumed that a major blockage exists and the cleaning effort shall be abandoned.

3.02 CLEANING PRECAUTIONS

A. During all cleaning and preparation operations all necessary precautions shall be taken to protect the storm sewer from damage. During these operations, precautions shall also be

taken to insure that no damage is caused to public or private property adjacent to or served by the storm sewer or its branches.

B. Satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the storm sewer. When possible, the existing flow within the storm sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, a hydrant meter shall be obtained from Town Utilities Customer Service. Contractor will be responsible that the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

3.03 MATERIAL REMOVAL

A. All sludge, dirt, sand, rocks, grease, roots, and other solid or semisolid material resulting from the cleaning operation shall be removed at the downstream inlet of the section being cleaned. Passing material from one pipe section to another, which could cause line stoppages, accumulations of sand in sump areas, or damage pumping equipment, shall not be permitted.

B. Under no circumstances shall sludge or other debris removed during these operations be dumped or spilled into the streets, ditches, sanitary sewers or other storm drains.

C. The Contractor is advised that he shall not dispose of this material by legal or illegal dumping on private or public property, by sale to others, or any means other than those given below (Section 3.04). Any load of material, or any portion thereof, disposed of in a non-permitted fashion will result in a charge to the Contractor in the amount of $200.00 per load, or any portion thereof, which sum will be deducted by the Owner from any monies due the Contractor.

D. The Contractor shall keep his haul route and work area(s) neat and clean and reasonably free of odor, and shall bear all responsibility for the cleanup of any spill which occurs during the transport of cleaning/surface preparation by-products and the cleanup of any such material which is authorized by or pursuant to this Contract and in accord with applicable law and regulations. The Contractor shall immediately cleanup any such spill, or waste. If the Contractor fails to cleanup such spill, or waste immediately, the Owner shall have the right to cleanup or arrange for its cleanup and may charge to the Contractor all costs, including administrative costs and overhead, incurred by the Owner in connection with such cleanup. The Owner may also charge to the Contractor any costs incurred or penalties imposed on the Owner as a result of any spill, dump or discard. Under no circumstances is this material is to be discharged into the waterways or any place other

than where authorized to do so by the appropriate authority. The term "Contractor" as used in this section shall include the Contractor's subcontractors and other Contractors.

E. The general requirements for vehicles hauling such waste materials are as follows: Transport vehicles must be of type(s) approved for this application by the political jurisdictions involved. General requirements are that the vehicles have watertight bodies, that they be properly equipped and fitted with seals and covers to prohibit material spillage or drainage, and that they be cleaned as often as is necessary to prevent deposit of material on roadways. Vehicles must be loaded within legal weight limits and operated safely within all traffic and speed regulations.

F. The routes used by the Contractor for the conveyance of this material on a regular basis shall be subject to approval by the governing authority having jurisdiction over such routes.

3.04 DISPOSAL OF MATERIALS

A. All solids or semisolids resulting from the cleaning operations shall be removed from the site and disposed of by the Contractor in a legal and sanitary manner as approved by appropriate authorities, at the Contractor's cost. Copies of records of all disposal shall be furnished to the Owner, indicating disposal site, date, amount and a brief description of material disposed. All materials shall be removed from the site no less often than at the end of each workday. Under no circumstances will the Contractor be allowed to accumulate debris, etc., on the site of work beyond the stated time, except in totally enclosed containers and as acceptable to the Owner.

3.05 CHEMICAL ROOT TREATMENT

A. To aid in the removal of roots, pipe sections that have root intrusion may be treated with an acceptable herbicide. The application of the herbicide to the roots shall be done in accordance with the manufacturer's recommendations and specifications in such a manner to preclude damage to surrounding vegetation. Any damaged vegetation so designated by the Engineer shall be replaced by the Contractor at no additional cost to the Owner. All safety precautions as recommended by the manufacturer shall be adhered to concerning handling and application of the herbicide.

B. Use of herbicide for root treatment, shall not be permitted in those areas or in such a manner that chemicals are discharged into tidal waters. Prior to the use of root treatment chemicals. The Contractor must provide a plan to assure herbicides will not be introduced into waters of the State or other sensitive areas in such quantity or concentration to cause damage to the estuarine environment.

3.06 ROOT REMOVAL

A. Roots shall be removed in the designated sections and manholes where root intrusion is indicated on the work order. Special attention should be exercised during the cleaning operation to assure almost complete removal of roots from the joints. Any roots which could prevent the traveling of the packer or could prevent the proper application of chemical sealants, or could prevent the proper seating and application of cured-in-place, fold-and-formed or sectional cured-in-place liners, shall be removed. Procedures may include the use of mechanical equipment such as rodding machines, bucket machines and winches using root cutters and porcupines, and equipment such as high-velocity jet cleaners. Chemical root treatment may be used before the root removal operation. Contractor shall capture and remove all roots from the line.

3.07 ACCEPTANCE OF CLEANING OPERATION

A. Acceptance of storm sewer line cleaning shall be made upon the successful completion of the television survey and shall be to the satisfaction of the Owner. If television survey shows the cleaning to be unsatisfactory, the Contractor shall be required to reclean and reinspect the storm sewer line until the cleaning is shown to be satisfactory. In areas where television survey is not performed, the Owner may require the Contractor to pull a double squeegee (with each squeegee the same diameter as the sewer) through each pipe section as evidence of adequate cleaning. If internal sealing is to follow the television survey, particular attention should be given to the adequacy of the cleaning to insure that proper seating of the sealing packer can be achieved.

B. In addition, on all those lines which have sags or dips, to an extent that the television camera lens becomes submerged for three (3) or more feet during the television inspection, the Contractor shall pull double squeegee and/or sponges through the line in order to remove the water from those dips or sags. Water removal through squeegees and/or sponges shall be performed until the television camera lens will not longer be submerged. This requirement may be waived by the Owner if the water in which the camera lens is submerged, is clear enough to allow the identification of pipe defects, cracks, holes and location of service taps.

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SECTION 02752

STORMWATER FLOW CONTROL

PART 1 – GENERAL

1.01 SCOPE OF WORK

A. The work specified in this Section includes all labor, materials, accessories, equipment and tools for performing all operations required to bypass pump stormwater (or infiltrating groundwater) around a manhole or sewer section in which work is to be performed. The Contractor shall be prepared to bypass pump water as a part of his operations.

B. The Contractor shall provide all pumps, piping, and other equipment to accomplish this task; perform all construction; obtain all permits; pay all costs; and perform complete restoration of all existing facilities to equal or better condition to the satisfaction of the Engineer.

1.02 GENERAL

A. When sewer line flows at the upstream manhole of the manhole section being repaired are above the maximum allowable requirements for television survey, or do not allow the proper sewer or manhole repair, the flows shall be reduced to the levels indicated by the Contractor pumping/bypassing of the flows as acceptable to the Engineer.

B. In some applications, the flow may be plugged and contained within the capacity of the collection system. This shall only be done when it has been determined the system can accommodate the surcharging without any adverse impact.

C. For the initial television survey, before and after a lining is installed, the storm sewer line shall be blocked completely. No flow, except infiltration/inflow, will be allowed through the respective sewer line being televised on the pre-repair television survey, and the post repair television survey.

D. For all other television surveys, including warranty surveys and joint testing and sealing, the depth of flow within the storm sewer shall not exceed that shown below for the respective pipe sizes as measured in the manhole.

1. Maximum Depth of Flow..... Television Survey

   6" - 10" Pipe..... 20% of pipe diameter

   12" - 24" Pipe..... 25% of pipe diameter

   Above 24" Pipe ..... 30% of pipe diameter

2. Maximum Depth of Flow.....Joint Testing/Sealing

   6" - 12" Pipe..... 25% of pipe diameter

   15" - 24" Pipe..... 30% of pipe diameter

   Above 24" Pipe ..... 35% of pipe diameter

E. When sewer line flows at the upstream manhole of the line being repaired, in the opinion of the Engineer, are too excessive to plug while the rehabilitation is being performed; the Contractor shall submit a written plan and pump/bypass the flow as acceptable to the Engineer.

1.03 SUBMITTALS

A. The Contractor shall submit complete, detailed plans for this aspect of the work to the Engineer for review.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 PLUGGING AND BLOCKING

A. A sewer line plug shall be inserted into the line at a manhole upstream from the section being surveyed or repaired. The plug shall be so designed that all or any portion of the operation flows can be released. During the survey portion of the operation, flows shall be shut off or reduced to within the maximum flow limits specified. During repairs, the flows shall be shut off or pumped / bypassed, as acceptable to the Engineer. After the work tasks have been completed, flows shall be restored to normal.

3.02 PUMPING AND BYPASSING

A. When pumping/bypassing is required, as determined by the Engineer, the Contractor will supply the necessary pumps, conduits and other equipment to divert the flow of water around the section in which work is to be performed. The bypass system shall be of

sufficient capacity to handle existing flows plus additional flow that may occur during periods of rain storms. The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing system. A "setup" consists of the necessary pumps, conduits and other equipment to divert the flow of water around a section, from the start to finish of work performed in the section.

B. Pumps and equipment shall be continuously monitored by a maintenance person capable of starting, stopping, refueling and maintaining these pumps during the rehabilitation. If pumping is required on a 24-hour basis, engines shall be equipped in a manner to keep noise to a minimum.

3.03 FLOW CONTROL PRECAUTIONS

A. Pumps: Any sump pumps, bypass pumps, trash pumps or any other type pump which pulls water or any type of material out of the manhole or storm sewer shall discharge this material into another manhole, or appropriate vehicle or container acceptable to the Engineer. Under no circumstances shall this material be discharged, stored or deposited on the ground, swale, road or open environment.

B. Traffic Control: The Contractor shall take appropriate steps to ensure that all pumps, piping and hoses that carry raw storm water are protected from traffic. Traffic control shall be performed in accordance with Section 01570 - Traffic Regulation and Maintenance of Traffic.

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SECTION 02753

TELEVISION SURVEY

PART 1 -- GENERAL

1.01 SCOPE

A. The work consists of furnishing all labor, materials, accessories, equipment, tools, transportation, services and technical competence for performing all operations required to execute the internal closed circuit television survey to inspect the entire barrel of storm sewers up to 66 inches in diameter.

B. The survey shall show all defects and determine amount of infiltration entering the storm sewer system.

1.02 GENERAL

A. After cleaning as specified in Section 02751- Preparatory Cleaning and Root Removal, and before and after rehabilitation operation/replacement work, the pipe sections shall be visually surveyed by means of closed-circuit television in the presence of the Engineer. The survey shall be performed one inlet to inlet section at a time and the flow in the section being surveyed shall be suitably controlled.

B. Pre- and post-construction survey video recordings shall be delivered to the Engineer (with sections included clearly identified), accompanied with the corresponding work order, and pre- and post-TV log, for each storm sewer line surveyed.

1.03 EQUIPMENT

A. The television camera used for the survey shall be one specifically designed and constructed for such survey and shall be of the pan and tilt type. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be operative in 100% humidity conditions. The camera, television monitor, and other components of the video system shall be capable of producing a minimum 700 line resolution color video picture. The Contractor shall maintain camera in clear focus at all times. Picture quality and definition shall be to the satisfaction of the Engineer; and if unsatisfactory, equipment shall be removed and replaced with adequate equipment.

B. The video camera shall include a titler feature capable of showing on the tape the following information:

1. City and State

2. Date

3. Contractor's Name

4. Line Size

5. Inlet Identification (both inlets)

6. On-going Footage Counter

1.04 SUBMITTALS

A. Prior to performing a television survey for the work orders, the Contractor shall submit shop drawings and other information reasonably requested by the Owner or Engineer. The Contractor's submittals shall include a DVD with a sample of the video titles to be used, along with a sample of the television survey log to be used.

PART 2 -- PRODUCTS

2.01 VIDEO RECORDING

A. DVD shall be supplied for all television surveys.

B. All taping shall be performed at a minimum of 720x480 Progressive scan resolution. All DVDs shall be submitted to the Engineer and will become the property of the Owner.

C. Format to be MPEG2.

2.02 VIDEO LOGS

A. Video reports or logs are to be neat and completely filled out and submitted to the Engineer along with the DVD.

PART 3 -- EXECUTION

3.01 PRECONSTRUCTION SURVEY

A. Procedure

1. Prior to any repair work, the entire storm sewer line (from inlet to inlet/manhole to manhole) shall be televised. The camera shall be placed at the center of the inlet and recording shall commence prior to entering the pipe. The Contractor shall show the inside of the manhole walls and the pipe connection to the wall at both the upstream and downstream inlet/manhole.

2. The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the pipe's condition. In no case shall the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the pipe conditions may be used to move the camera through the pipe. If the camera is being pulled through the pipe by a hydraulic cleaning unit hose the cleaning nozzle shall be located a minimum of eight (8) feet away from the camera to allow a clear, unobstructed view. A jet nozzle shall be used in front of camera while televising through a dip to draft out water. If, during the survey operation, the television camera will not pass through the entire inlet section, the Contractor shall set up his equipment so that the survey can be performed from the opposite inlet.

3. Whenever nonremote powered and controlled winches are used to pull the television camera through the line, telephones or other suitable means of communication shall be set up between the two manholes/inlets of the section being surveyed to insure good communication between members of the crew.

4. Measurement for location of defects shall be above ground by means of a meter device. Marking on the cable, or the like, which would require interpolation for depth of inlets, will not be allowed. Measurement meters shall be accurate to tenths of a foot over the length of the section being surveyed. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device. Inlet numbers and linear footage shall be shown on screen during taping.

5. Movement of the television camera shall be temporarily halted for a minimum of ten seconds at each visible point source of separation, infiltration or inflow until the leakage rate from that source is quantified or the magnitude of the defect is estimated. The camera shall be stopped at all lateral connections, which shall be inspected with the pan and tilt camera.

B. Field Documentation

1. Television Survey Logs: Printed location records shall be kept by the Contractor and will clearly show the location in relation to an adjacent inlet of each infiltration point observed during survey. Upstream footage (0) and downstream footage (i.e., 250) shall be shown on the log. In addition, other points of significance such as locations of building connections, unusual conditions, roots, sewer connections, broken pipe, presence of scale and corrosion, and other discernible features will be recorded and a copy of such records will be supplied to the Engineer. The Contractor shall measure the depth of the upstream and downstream inlets.

Measurements shall be from the invert of the pipe televised to the top of the manhole rim and shall be recorded on the survey log.

2. Photographs: Instant developing, 35 mm, or other standard-size photographs of the television picture of problems shall be taken by the Contractor upon request of the Engineer.

3. Video Recordings: The purpose of video recording shall be to supply a visual and audio record of problem areas of the lines that may be replayed. Video recording playback shall be at the same speed that it was recorded. Slow motion or stop motion playback features shall be supplied by the Contractor. Once recorded, the information becomes property of the Owner. The Contractor shall have all recordings and necessary playback equipment readily accessible for review by the Owner during the Project.

4. Audio: All recordings shall have audio record. As a preamble, at the beginning of the video, the Contractor shall state the following: (Contractor's Name) is performing a pre/post TV survey for the Town of Jupiter Storm Sewer System". State date, time, operator's name, area/location, upstream inlet/manhole number to downstream inlet/manhole number, pipe size and material, upstream manhole depth, and TV survey will be from up- to downstream, or down- to upstream. The Contractor shall verbally state station and position of all laterals and defects. At the end of each line, state: End of line, upstream number to downstream inlet number, and total linear footage.

3.02 POST CONSTRUCTION SURVEY

A. Procedure

1. The same procedures shall be used as indicated in Section 3.01 PRECONSTRUCTION SURVEY.

2. In addition, the Contractor shall stop camera at all point repairs and sectional repairs and inspect entire repaired pipe section.

3. The Contractor shall invert white foreground to black as needed in the line section with light background.

B. Documentation

1. The same documentation shall be provided as indicated in Section 3.01 PRECONSTRUCTION SURVEY.

- END OF SECTION -

SECTION 02754

STORM SEWER INLETS AND MANHOLES

PART 1 – GENERAL

1.01 SCOPE

A. The work specified in this Section includes all labor, materials, accessories, equipment and tools necessary to install and test precast concrete inlets and manholes, with or without outside drop connections. Inlets and manholes shall be located on existing storm sewer line segments or at intersection ("T") of existing storm sewer lines.

1.02 SUBMITTALS

A. The Contractor shall submit Shop Drawings and other information for review in accordance with Section 01300 - Submittals, including: dimensions; elevations; dewatering, sheeting and bracing plans; cement type; concrete strength; reinforcement; lifting hooks; joint material; openings; castings; and other applicable information.

1.03 UPLIFT

A. All precast concrete inlets and manholes placed below grade shall have adequate safety factors against uplift (excluding weight of soil and associated skin friction) as follows:

Water Elevation	Safety Factor
High water level (H.W.L)	1.5
100 year flood	1.2

PART 2 -- PRODUCTS

2.01 FRAMES AND COVERS

A. All workmanship and materials shall be of the highest quality. Inlets, grates, frames, manholes rings, and cover shall be the product of a manufacturer actively engaged in research, development, and manufacturing of inlets and manholes rings and covers.

B. Frames and covers shall be U.S. Foundry No. 230-AB-M or equal. Inlets and manholes cover shall have the word "STORM SEWER" cast into the metal per Jupiter Stormwater Construction Standards and Details.

C. Inlets and manhole chimneys shall be constructed with Type II Portland Cement conforming to ASTM C 150 and sewer brick. The bricks used shall be best quality, hard burned sewer brick, regular and uniform in size and shape. They shall be of compact texture and shall not absorb more than 16 percent by volume of water after 24 hours of immersion. The brick shall conform to ASTM Designation C 32. If grade rings are to be used for chimneys, the Contractor must submit a shop drawing for review according to Section 01300 - Submittals.

2.02 PRECAST INLETS AND MANHOLES

A. Precast concrete inlets and manholes or sections (hereinafter referred to as "precast sections") shall be furnished with waterstops, sleeves and openings as necessary described in the work order. Box out for wall pipes shall conform accurately to the sizes and elevations of the adjoining pipes. Precast sections shall be watertight and conform to the requirements of ASTM C 478 with reinforcement of ASTM A 615, Grade 60 bars and the following modifications there to:

1. The minimum wall thickness shall be 8 inches.

2. Cement to be used in precast inlets and manholes and grout shall be ASTM C 150, Type II.

3. The date and name of manufacturer shall be marked inside each precast sections.

4. No more than 2 lift holes may be cast or drilled in each section.

5. Minimum 28-day concrete strength shall be 4000 psi.

2.03 MANUFACTURER

A. Inlets and manholes structure and liner shall be manufactured by U.S. Precast Corporation, or equal.

2.04 GASKETS AND FINISH

A. The joint sealing shall be Ram-Neck, a preformed, cold-applied, ready to use plastic joint sealing gasket as supplied by K.T. Snyder Company, or equal.

B. Finish for outside of new concrete inlets and manholes sections shall be Kop-Coat 300M Coal Tar Epoxy or equal.

PART 3 – EXECUTION

3.01 PREPARATION

A. Traffic Control: The Contractor is required to obtain all permits, use appropriate traffic regulating devices, notify all appropriate governmental agencies and conform to all the requirements listed in Section 01570 - Traffic Regulation and Maintenance of Traffic.

B. Flow Control: Flow control shall be exercised as required.

1. Plugging and Blocking of Flow: A pipe line plug shall be inserted into the line at inlets and manholes upstream from the section to be inspected. The plug shall be so designed that all or any portion of the flows can be released. During the inspection, testing and replacement portion of the construction, flows shall be shut off or substantially reduced as indicated by the Engineer. The upstream inlets and manholes shall be constantly monitored for degree of surcharging. After the testing, inspection or repair is complete, flows shall be restored to normal. See Section 02750 - Stormwater Flow Control for additional information.

2. Pumping and Bypassing of Flow: Wherever lines are blocked off and the possibility of backing up the water and causing harm to public and private property is foreseen, it shall be the Contractor's responsibility to bypass flow from inlets and manholes.

3. Bypassing shall be accomplished using sewer plugs with pump connections, by pumping down surcharged inlets and manholes, or by other methods acceptable to the Engineer. Bypassed flow shall not be allowed to enter any sanitary sewer line. See Section 02750 - Stormwater Flow Control for additional information.

4. During a bypass operation, the pump shall be manned continuously. The Contractor shall maintain the pump and bypass equipment and shall be responsible for any damages to public or private property due to the malfunction of same.

3.02 EXCAVATION AND BACKFILL

A. The Contractor shall excavate and backfill in accordance with Section 02222 - Excavation and Backfill for Utilities. Under no circumstances shall the Contractor be allowed to remove concrete or asphalt without prior cutting. The saw cutting shall be deep enough to produce an even, straight cut. Backfilling shall occur in 12-inch lifts with compaction by an engine driven hand tamp or other mechanical means as acceptable to the Engineer. Compaction shall be as specified in Article 3.07 of Section 02222; backfill material shall be as specified in Article 3.06 of Section 02222.

3.03 DEWATERING, SHEETING AND BRACING

A. The Contractor shall dewater, sheet and or brace all excavations in accordance with Section 02222 - Excavation and Backfill for Utilities. Well points, pumps, sheeting, bracing and/or sock drain shall be used to provide a safe, dry, open hole for all repairs or replacements specified herein.

3.04 NEW INLET AND MANHOLE CONSTRUCTION

A. General:

1. At the locations indicated by the Engineer, the Contractor shall excavate and locate the existing piping in order to obtain the relative elevations of existing sanitary sewer pipes with respect to ground surface elevation. Excavation shall be non-disruptive and non-destructive soil extraction as provided by Accurate Locating, Inc. or equal. After all measurements have been obtained, the excavated hole shall be backfilled and surface shall be restored to its original condition. Excavation and measurements shall be witnessed by the Engineer.

2. The pipe connections shall be cut to 2 to 3 feet outside the existing inlets and manholes exterior wall. Proper dewatering sheeting and bracing of the hole is critical; no inlets and manholes shall be allowed to be installed in an unsafe or wet hole.

B. Bedding Requirements: The Contractor shall excavate an additional 6 inches (min) below the base of the inlet or manhole and fill with "Crushed Stone" as defined in Section 02222 - Excavation and Backfill for Utilities and shown in the Details. The Contractor shall also use this crushed stone for bedding of all the pipe connections. No excavated fill shall be allowed in the hole until all connections are complete and proper bedding requirements have been met.

C. Setting Precast Sections

1. Precast reinforced concrete sections shall be set so as to be vertical and with sections in true alignment. A flexible, watertight gasket such as "Ram-Nek" or equal shall be used between sections.

2. The annulus at sewer pipe connections to inlets and manholes shall be clay brick and Portland cement type II mortar in accordance with Town of Jupiter Stormwater Construction Standards and Details.

3. All holes in sections, used for their handling, shall be thoroughly plugged with mortar. All seams, keyways, and pipe connections shall be thoroughly plugged with brick and mortar inside and out as needed. The mortar shall be hammered into the

holes until it is dense and an excess of paste appears on the surface; then finished smooth and flush with the adjoining surfaces.

4. The Invert Elevations that were surveyed by the Contractor prior to inlets and manholes construction shall be used to install the inverts in the new inlets and manholes. The inverts shall be resurveyed and submitted to the Engineer for as-built purposes.

D. Finish: The outside of the precast sections shall be finished in accordance with the following:

Application	Description	DFT
Primary – 1 coat	Kop-Coat 300M Coal Tar Epoxy or equal	6 – 8
Second – 1 coat	Kop-Coat 300M Coal Tar Epoxy or equal	8 - 10

E. Backfill: The backfill shall be compacted; road subgrade (if in paved area) shall be replaced with acceptable material and compacted as specified in Section 02500 - Surface Restoration.

3.09 DISPOSAL

A. All excavated material such as pipe sections, concrete, debris or any other items excavated shall become property of the Contractor. The Contractor shall take full responsibility for proper disposal and include the cost in the appropriate bid items.

3.10 SURFACE RESTORATION

A. All surface restoration shall be in accordance with Section 02500 - Surface Restoration. Pavement, concrete, sod or any other surface items shall be replaced in equal or better condition than prior to repair.

3.11 TESTING

A. After construction or replacement work at each inlets and manholes has been completed and the materials used have been allowed to cure; it shall be tested for excess infiltration by the Contractor in the presence of the Engineer. THERE SHALL BE NO VISIBLE INFILTRATION. All inlets and manholes must meet this requirement before acceptance by the Owner.

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SECTION 02757

POINT REPAIR OF STORM SEWERS

PART 1 -- GENERAL

1.01 SCOPE

A. The work specified in this Section includes repairs to sections or segments (up to 15 feet) of existing storm sewers, mains or service lines, which require excavation from the surface to accurately locate sources of infiltration or inflow and to eliminate them by making necessary repairs.

1.02 GENERAL

A. Reference is made to Division 15, "Mechanical". Methods, procedures and requirements are similar when sections of existing pipe have been crushed, cracked, or settled, or have holes in them and are to be replaced with new pipe. Generally, point repairs are made at specific locations and involve relatively short lengths of pipe or fittings (up to 15 feet) which are to be repaired or replaced. "Isolation" of affected reaches of storm piping by plugging and/or bypass pumping, if required, shall be performed as specified in (Section 02750 - Flow Control).

B Locations where point repairs are to be made will be made available to the Contractor through Work Orders and will be based on previously performed inspections and television surveys. It is understood that the exact location of pipe leaks and failures cannot always be determined before the pipe is exposed.

C. It is also understood that inspection and closed circuit television surveys performed by others prior to the commencement of this project cannot always determine the precise cause of leakage or failure. The pipe shall be exposed and the source located, examined and evaluated before repairs are made.

D. After the designated repairs have been made, the Contractor will test them as described in this Section of these Specifications. The costs of testing will be borne by the Contractor. If a repaired joint or section should prove to be defective, the Contractor shall reperform the work at no additional cost to the Owner and shall also be responsible for the costs of any retesting required by the Engineer.

E. Where work is to be performed on private property, the Contractor shall consult with the Owner who will make arrangements and schedules with the property owners before the Contractor performs the work.

F. Excavation, backfill, sheeting and shoring, dewatering, conflicts with other utilities, and miscellaneous work shall conform to the requirements in the Town of Jupiter Construction Standards and Details and Section 02222 - Excavation and Backfill for Utilities.

1.03 SUBMITTALS

A. The Contractor shall submit shop drawings (in accordance with Section 01300 Submittals) of products, and procedures to be used in the repair.

PART 2 -- PRODUCTS

2.01 MATERIALS

A. Pipe materials are specified in Division 15, "Mechanical" and Town of Jupiter Construction Standards and Details.

PART 3 -- EXECUTION

3.01 PROCEDURES

A. The point repair procedures shall be as follows:

1. Site preparation shall be performed as described in Division 2. When the repairs are to be made on sewers or facilities lying under paved surfaces, those surfaces shall be removed to the limits shown on the Drawings/Details for point repairs of the particular size pipe involved, unless a proposed alternate is acceptable to the Engineer.

2. Dewater, sheet and or brace all excavations in accordance with Section 02222 - Excavation and Backfill for Utilities. Well points, pumps, sheeting, bracing and/or sock drain shall be used to provide a safe, dry, open hole for all repairs or replacements specified herein.

3. Excavate down to the pipe, completely exposing a minimum of four sections of pipe including three joints for non-plastic pipe or at least one joint for PVC pipe. This will normally be a distance of 12 to 16 feet, depending on the pipe section lengths.

4. Locate the leak to be repaired.

5. After the leak or failure is located and exposed, the Engineer will identify the method of rehabilitation. One or a combination of the following methods shall be used:

a. Remove and replace section(s) of pipe or fitting: Remove section(s) of defective pipe or fitting by cutting on each side along lines perpendicular to longitudinal axis of pipe so as to leave "spigot ends" to be connected to replacement pipe. Cut or fabricate replacement section. Make connections using flexible band couplings or adapters, couplings with compression joints in accordance with ASTM C 425. Bedding or embedment shall be placed and compacted. Reconnect to service line if required. As a minimum, a total of six (6) feet of piping shall be replaced by the Contractor.

b. Cement-stabilized sand shall be used to supplement the embedment or backfill when accepted by the Engineer. This shall consist of two sacks of cement per cubic yard of sand thoroughly mixed. Only a sufficient amount of water shall be added to assure setting-up of the cement. These mixes shall be made before placing in the trench and only enough shall be prepared to allow placing, shaping and tamping before an initial set has taken place.

6. The adequacy of point repairs in sewer mains shall be demonstrated by the Contractor by testing. Testing of mains may be accomplished by one of two alternate methods, depending on the difference in elevation of the pipe at the ends of the reach. Smoke testing shall be used if the pipe slope exceeds one percent. Testing shall be performed before backfilling.

a. Smoke-Testing: The reach of sewer in which the repair (or repairs) has been made shall be isolated by plugging the upstream and downstream manholes as necessary not only to temporarily eliminate the flow of water through it but also to prohibit the smoke from entering other reaches of sewer. Smoke shall then be introduced into one of the manholes and into the reach using smoke bombs and a blower especially designed or adapted for smoke testing sewers and acceptable to the Engineer. The repaired area shall then be observed for the emergence of smoke for a period of 15 minutes. If none can be seen, the repair will be deemed to have passed the test.

b. Exfiltration-Testing: This method may be used only on sewers laid on grades less than 1.00 percent. Water, colored with a bright-colored dye acceptable for usage in testing, is introduced into the pipe so as to impose a 2-foot static head over the top of the pipe at the point of repair when the pipe in the lower manhole is plugged. Observations shall then be made by the Engineer to determine if leakage of the colored water occurs at the repair point. Care shall be taken, when this method is used, that:

i. Not more than 4-feet of static head are induced on the main at the lower end of the reach, and

ii. No back-up problems are caused in downhill service lines.

3.02 TELEVISION SURVEY

A. Television survey, including Preconstruction Survey and Post Construction Survey as indicated in Section 02753 - Television Survey, is required for all point repairs of storm sewers.

- END OF SECTION -

SECTION 02762

CHEMICAL ROOT TREATMENT

PART 1 -- GENERAL

1.01 SCOPE

A, The work specified in this Section includes all labor, materials, accessories, equipment, and tools necessary for chemical root treatment to kill tree roots in storm sewer pipe prior to chemical grouting and lining and to inhibit root regrowth without damaging the trees or the environment.

1.02 REFERENCE SPECIFICATIONS

A. Section 02751 - Preparatory Cleaning and Root Removal

B. Section 02763 - Chemical Grouting

1.03 SUBMITTALS

A. The Contractor shall submit the following in accordance with Section 01300 - Submittals:

1. A specimen product label showing the United States Environmental Protection Agency (EPA) Registration listing numbers of the product.

2. A specimen product label indicating EPA approval of the chemical root treatment for sanitary and storm sewers.

3. The manufacturer's recommended guidelines for proper mixing ratios for maximum daily usage of materials.

4. Material Safety Data Sheet (MSDS) for the product.

B. The above informational data shall clearly indicate compliance with the Specifications. The Contractor shall submit written exceptions to the specifications.

PART 2 -- PRODUCTS

2.01 GENERAL

A. The chemical root treatment material shall be EPA registered and labeled for use in sanitary and storm sewer lines and acceptable to the state and local government agencies having jurisdiction over its use.

2.02 ROOT TREATMENT MATERIAL

A. The chemical root treatment material shall be the formula RootX or equal. The formula shall be composed of two dry components which when mixed and come in contact with water foam immediately. The active ingredient of the chemical treatment shall be Dichlobenil (minimum 100 ppm). Extra equipment such as a foam machine should not be required. This active ingredient for killing roots shall be an aquatically approved, non-systemic herbicide (Dichlobenil) which will kill roots at low concentrations but will not permanently affect parts of the plant distant from the treated roots. The active ingredient must be detoxified by natural chemical / biochemical processes following its use. The active ingredient, adjuvants, or either ingredient's by-products shall not adversely affect the environment or performance of wastewater treatment plants.

B. The active ingredient for inhibiting root regrowth (Dichlobenil) in sanitary and storm sewers shall inhibit root cell growth on contact, but shall not be transported so as to damage other portions of the plant. The material shall form a persistent chemical barrier suppressing the growth of root tips. The material shall be sufficiently stable under conditions of use to provide protection for twelve months, but shall be subject to decomposition in wastewater treatment plants without disturbing plant processes.

C. To improve transportation of the active ingredients into root tissues, the root treatment material shall contain emulsifiers to degrease root masses and remove fatty acids from root tissue.

PART 3 -- EXECUTION

3.01 GENERAL

A. All materials and mixing / application procedures for chemical root treatment shall conform to the latest industrial standards and requirements, and follow the recommendations of the manufacturer of the chemical root treatment material used.

3.02 PREPARATORY PROCEDURES

A. Root tips are the principal growth areas and are the surfaces most effectively penetrated by root treatment chemicals. When the root tips are damaged or removed by cleaning, chemical treatment will be less effective. Consequently, no cleaning is recommended in lines prior to chemical root treatment unless extensive grease, root masses or debris preclude proper application of the material.

3.03 FLOW CONTROL

A. Storm sewer service shall generally not be interrupted during root treatment. In situations where it is necessary, the Contractor shall block / bypass flow in accordance with Section 02750 - Stormwater Flow Control.

3.04 PERSONAL PROTECTIVE EQUIPMENT

A. The Contractor shall use appropriate protective clothing and equipment as recommended by the manufacturer during the use and handling of the material.

3.05 MIXING PROCEDURES

A. All materials shall be delivered to the site in undamaged, unopened containers bearing the manufacturer's label. Mixing of the root treatment material shall be done no more than 12 hours prior to use. The water used shall be clear and free of acid, alkali, oxidizing agents, oil, or other organic materials. Mixing water temperature shall be between 40 degrees F and 80 degrees Fahrenheit.

3.06 APPLICATION PROCEDURES

A. Where conditions permit, the volume of foam shall be sufficient to completely fill the air space above the flow, along the entire pipe reach. In all cases, the volume of foam delivered to the pipe line shall be sufficient to attach to and permeate all root masses.

B. The foam shall be applied sufficient pressure to penetrate a minimum of 5 feet into service connections.

3.07 DISCHARGE OF EFFLUENT

A. The chemical root treatment material is not removed from the sewer and will travel to the treatment plant. The active ingredient for inhibiting root regrowth shall attach to pipe surfaces in the line being treated or in route to the treatment plant. The amount of chemical root treatment material reaching the plant shall be negligible, and no special precautions shall be required. The Contractor shall follow the manufacturer's maximum use guidelines. Note: Large sewer trunk line directly upstream from the systems outfall may require special precautions.

3.08 ROOT REMOVAL / CHEMICAL GROUTING

A. Removal of dead roots, where required, should be postponed as long as possible after chemical root treatment to facilitate easier cleaning. Sewer line cleaning shall be scheduled no less that six weeks after root treatment.

B. Root removal shall be in accordance with Section 02751 - Preparatory Cleaning and Root Removal.

- END OF SECTION -

SECTION 02763

CHEMICAL GROUTING

PART 1 -- GENERAL

1.01 SCOPE

A. The work specified in this Section includes all labor, materials, accessories, equipment and tools necessary for chemical grouting, sealing, and air testing storm sewer pipe joints.

1.02 REFERENCE SPECIFICATIONS

A. Preparatory Cleaning and Root Removal

B. Television Survey

C. Chemical Root Treatment

1.03 GENERAL

A. Chemical Root Treatment

1. Prior to performing chemical grouting, the Contractor shall remove roots and clean the sewer in accordance with Section 02751 Preparatory Cleaning and Root Removal.

B. Leak Sealing

1. Sources, or possible sources, of infiltration within the storm sewer system, are to be sealed to eliminate infiltration. Locations of such work shall be as directed by the Owner/Engineer.

2. The application of the sealing grout within the pipe shall be by means of remote-controlled equipment designed to be positioned at the specific joint or crack to be sealed and to apply the grout under sufficient pressure for the grout to pass through the opening and fill voids outside the pipe as well as the opening in the pipe wall. Control of the device and review of the results shall be by operating the closed-circuit television camera and van-mounted monitor conforming to the requirements of Section 02752 Television Survey. The method of sealing used shall not damage the pipe or change pipe alignment, and the original cross sectional area shall not be permanently reduced or changed.

1.04 QUALIFICATIONS

A. The Qualifications of the Grouting Contractor shall be submitted. These Qualifications shall include detailed descriptions of the following:

1. Name, business address and telephone number of the Contractor.

2. Name(s) of all supervisory personnel to be directly involved with Grouting for this project.

3. The Contractor shall sign and date the information provided and certify that to the extent of his knowledge, the information is true and accurate, and that the supervisory personnel will be directly involved with and used on this project. Substitutions of personnel and/or methods will not be allowed without written authorization of the Engineer.

4. Specialty technicians shall be certified by the equipment manufacturer and/or its authorized representative. Certifications shall be submitted to the Engineer.

5. Upon request of Engineer, the Contractor shall provide references of previous project lists including his customer's name, address, and telephone number.

6. To be qualified, the Contractor shall have a minimum of three years previous experience in grouting.

PART 2 -- PRODUCTS

2.01 CHEMICAL JOINT SEALING MATERIALS

A. Chemical joint sealing materials used on this project shall be AV-118 Duriflex, AV-100 Acrylamide, or equal.

B. In those lines which had root removal performed, a chemical root inhibitor shall be added to the grout prior to sealing the joints. Contractor shall submit the chemical to be used for Engineer's approval prior to utilization.

PART 3 -- EXECUTION

3.01 JOINT SEALING EQUIPMENT

A. The basic equipment shall consist of a closed circuit television system, necessary chemical sealant containers, pumps, regulators, valves, hoses, etc., and joint sealing packers for the

various sizes of sewer pipe. The packer shall be a cylindrical case of a size less than pipe size, with the cables at either end used to pull it through the line. The packer device shall be constructed in such a manner as to allow a restricted amount of flow at all times. Generally, the equipment shall be capable of performing the specified operations in lines where flows do not exceed the maximum line flows as specified in Section 02750 - Stormwater Flow Control. When the packer is inflated, two widely spaced annular bladders shall be formed, each having an elongated shape and producing an annular void around the center portion of the packer.

3.02 JOINT SEALING PROCEDURE

A. In the preparation and application of the sealing grout, the recommendations of the manufacturer of the grout materials shall be followed.

B. Joint sealing shall be accomplished by forcing chemical sealing materials into or through infiltration points by a system of pumps, hoses, and sealing packers. Jetting or driving pipes from the surface that could damage or cause undermining of the pipelines, will not be allowed. Excavating the pipe, which would disrupt traffic, undermine adjacent utilities and structures, will not be allowed. The packer shall be positioned over the area of infiltration by means of a metering device and the closed circuit television in the line. It is important that the procedure used by the Contractor for positioning the packer be accurate to avoid over-pulling the packer and thus not effectively sealing the point of infiltration. The packer sleeves shall then be expanded using precisely controlled pressures. The pneumatically expanded sleeve or elements shall seal against the inside periphery of the pipe to form a void area at the point of infiltration, now completely isolated from the remainder of the pipe line. In to this isolated area, sealant materials shall be pumped through the hose system at controlled pressures which are in excess of groundwater pressures. The pumping, metering, and packer device shall be integrated so that the proportions and quantities of materials can be regulated in accordance with the type and size of the leak being sealed. A maximum of 20 gallons of product shall be injected, and if a seal has not been established, the Owner/Engineer shall be notified.

3.03 TELEVISION SURVEY

A. Television survey, including Preconstruction Survey, Post Construction Survey, and Warranty Survey, as indicated in Section 02752 - Television Survey, is required for all grouted lines.

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SECTION 02764

CURED-IN-PLACE SECTIONAL PIPE LINING

PART 1 -- GENERAL

1.01 SCOPE

A. The work specified in this section consists of rehabilitating existing storm sewer pipe by installing a resin impregnated fiberglass/polyester felt tube into an existing pipe to restore its structural and hydraulic integrity.

PART 2 -- PRODUCTS

2.01 GENERAL

A. The finished liner shall be fabricated from material as specified in this section which when cured will be chemically resistant to the corrosive effects of the stormwater and hydrogen sulfide. The cured-in-place sectional pipe shall be the New Life System as manufactured by Stephen's Technologies, Inc. or equal.

B. The contractor shall submit shop drawings, samples of materials, and design calculations to the Engineer for review.

2.02 LINER SIZING

A. The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the conduit to be repaired as specified by the Engineer.

B. The length and number of liners shall be that deemed necessary by the Engineer to effectively carry out the repairs. The Contractor shall verify the lengths in the field before cutting liner to length. In general, the minimum length shall be 10 ft. and cover a minimum of 12 inches on either side of the broken section of pipe.

2.03 LINER MATERIAL

A. The lining material shall be a fiberglass mating material and fully impregnated with an epoxy resin as specified.

B. The mixed components of the epoxy resin shall have the following properties:

Item		Criteria
1.	Solids Content	100% by weight
2.	Pot Life	90 minutes at 70ºF
3.	Shelf Life	at least 1 year (sealed)
4.	Viscosity	18,000 cps (average at 70ºF)
5.	Density	12 pounds per gallon (max.)

C. The cured epoxy resin material shall have the following properties:

Item	Test Value	Reference Standard
Tensile Strength	4,000 psi	ASTM D 638
Flexural Strength	5,000 psi	ASTM D 790
Modulus of Elasticity	400,000 psi	ASTM D 790

2.04 LINER DESIGN

A. The Contractor shall submit to the Engineer for review complete design calculations for the liner, signed and sealed by a professional Engineer registered in the State of Florida and certified by the manufacturer as to the compliance of his materials to the values used in the calculations. A safety factor of 2 shall be applied in the design calculation. The liner shall be designed in accordance with ASTM F 1216 and resist buckling in accordance with Appendix A (AWWA C 950). The buckling analysis shall account for the combination of dead load, live load, hydrostatic pressure and grout pressure, if any. For design purpose, the groundwater table shall be considered at grade elevations.

B. For partially deteriorated concrete circular pipe with ovality not greater than 2%, the following minimum liner thickness shall be provided:

Minimum CIPP Liner Thickness (mm)

	Depth of Pipe (feet)				
Diameter (inches)	**0-4**	**4-8**	**8-12**	**12-16**	**16-20**
6	3.0	3.0	3.0	-	-
8	3.0	4.5	4.5	4.5	6.0
10	4.5	4.5	4.5	6.0	6.0
12	4.5	4.5	6.0	6.0	6.0
15	4.5	6.0	6.0	7.5	7.5

18	6.0	7.5	7.5	9.0	9.0
24	7.5	9.0	10.5	10.5	12.0
30	9.0	10.5	12.0	13.5	15.0
36	10.5	13.5	15.0	16.5	18.0

C. The above minimum liner thickness are for pipe condition and materials with characteristics as specified. Bidders with materials with other characteristics must supply complete information in their bids of the values for ascertaining minimum thickness. The application of these minimum liner thickness shall be reviewed by the Engineer on a case-by-case basis.

D. Liner shall be neither accepted nor installed until design calculations are acceptable to the Engineer.

PART 3 -- EXECUTION

3.01 CLEANING PIPE LINES

A. Prior to any lining of a pipe so designated, it shall be the responsibility of the Contractor to remove internal deposits from the pipeline in accordance with Section 02751 - Preparatory Cleaning.

3.02 TELEVISION SURVEY

A. Television survey shall be performed in accordance with Section 02752 - Television Survey, including Preconstruction and Post Construction Surveys.

B. The interior of the pipeline shall be carefully surveyed to determine the locations and extent of any structural failures. The location of any conditions which may prevent proper installation of lining materials into the pipelines shall be noted so that these conditions can be corrected. A video tape and suitable log shall be kept and turned over to the Engineer.

C. For the sewer line with sectional cured-in-place liner installed, a variance for post-TV and tapes shall be allowed as follows:

1. The post-TV shall commence at the upstream manhole (downstream for reverse setups) and shall proceed at a maximum speed of 30 feet per minute until the repair is reached. No panning of defects or laterals needs to be done. Upon reaching the sectional liner, the Contractor shall stop and carefully pan the beginning and the end of the liner to show that the repair has been successfully completed. If a lateral connection has been lined over and reopened, the

Contractor shall pan this opening and the lateral. The rest of the line shall be televised without stopping until the downstream manhole has been reached.

2. One log (pre-TV log) shall be furnished with a statement under the comments line as to the linear footage of the beginning of the sectional liner, the length of the liner, and the number of laterals reinstated (if any), and their location.

3.03 FLOW BYPASSING

A. The Contractor, when required, shall provide for the transfer of flow, through or around section or sections of pipe that are to be repaired. The proposed bypassing system shall be accepted in advance by the Engineer. The acceptance of the bypassing system in advance by the Engineer shall in no way relieve the Contractor of his responsibility and/or public liability. The flow bypassing shall be done in accordance with Section 02750 - Flow Control.

Note: If the repair can be made in a few hours, bypass pumping might not be required. The placement carriage shall be equipped with a bypass section to allow flow once liner is pressed into place.

3.04 LINE OBSTRUCTIONS

A. It shall be the responsibility of the Contractor to clear the line of obstruction. If survey reveals an obstruction that cannot be removed by conventional cleaning equipment, the Contractor shall make a point repair excavation in accordance with Section 02757 - Point Repair of Storm Sewers, to uncover and remove or repair the obstruction. Such excavation shall be accepted in writing by the Engineer prior to the commencement of the work.

3.05 LINER INSTALLATION

A. Prior to liner installation, all active severe leaks which may affect the success of liner installation shall be stopped using chemical grout. The Contractor shall impregnate the liner with the 100 percent solids epoxy. Drop cloths, tarpaulins, and etc. shall be used to prevent epoxy material from contacting the adjacent ground. Place the liner on the placement carriage and maneuver carriage and liner into position with the use of a video camera. Force the liner against the inside wall of the damaged host pipe allowing epoxy resin to permeate into any cracks in the host pipe. Allow lines to cure for approximately 2 hours in accordance with the manufacturer's recommendations. Heat may be introduced to speed up curing time. Retract the placement carriage and remove from pipe.

3.06 ACCEPTANCE

A. The finished liner shall be continuous over the entire length of the installation. The liner shall be free from visual defects, damage, deflection, holes, delamination, uncured resin, and the like. There shall be no visible infiltration through the liner or from behind the liner.

3.07 CLEANUP

A. After the liner installation has been completed and accepted, the Contractor shall clean up the entire project area and return the ground cover to grade. All excess material and debris not incorporated into the permanent installation shall be disposed of by the Contractor.

3.08 WARRANTY

A. The liner shall be certified by the manufacturer for specified material properties for a particular job. The manufacturer warrants the liner to be free from defects in raw materials for one year from the date of acceptance. During the warranty period, any defects which affect the integrity or strength of the pipe shall be repaired at the Contractor's expense in a manner mutually agreed by the Owner and the Contractor.

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SECTION 02765

INTERNAL JOINT SEAL

PART 1 -- GENERAL

1.01 WORK INCLUDED

A. The work specified in this section consists of furnishing all labor, material and equipment to seal storm pipe joints with various diameters by the man-entry internal joint sealing method. This repair will be done only on pipe that is otherwise in sound physical condition.

B. The contractor shall take all precautions necessary for the protection of all his personnel and meet all requirements of OSHA regulations and FDOT Specifications Section 7-1.5 (1999) for the Occupational Safety and Health Requirements associated with this work.

1.02 EQUIPMENT

A. The Contractor shall only use manufacturer recommended tools and equipment to install internal joint seals in accordance with manufacturer's instructions.

1.03 STORM WATER FLOW CONTROL

A. When the depth of flow in the storm pipe section being worked on is considered excessive that prevent successful joint seal installations, the flow shall be reduced to the allowable level by operation of pump stations, plugging or blocking the flow, or by pumping and bypassing the flow so that the pipe is accessible for man-entry joint seal installation in accordance with manufacturer's procedures.

B. The contractor shall prepare and submit his flow control plan to the Engineer for approval prior to commencement of the work. In any event, it shall be the Contractor's sole responsibility to properly maintain bypass flows without damage to the adjacent properties and / or environment.

PART 2 -- MATERIALS

2.01 FLEXIBLE SEALS

A. The material shall be a permanent, non-corrodible circular seal that can withstand an internal pipe pressure of 30 psi (70 feet) and external head pressures of up to 34 feet. The material shall be a Rubber Membrane for use as a joint liner material. The seal shall be manufactured by NPC, Inc. of Milford, New Hampshire, or equal.

2.02 STAINLESS STEEL BANDS AND HARDWARE

A. Circular stainless steel bands shall be used to hold the seals in place. These bands may be in two or three sections to allow for passage through the manholes. The bands shall be expanded against the seal and compress the seal to the pipe wall, and locked in place with wedges. The stainless steel bands, shims and bolts for securing the rubber membrane seal across piping joints shall be Type 316 and manufactured in accordance with ASTM-A479.

B. All shims and wedges shall be 316 stainless steel material, as required for the 316 stainless steel bands.

2.03 CHEMICAL SEALING MATERIAL

A. Chemical sealing materials shall have the following properties: react quickly to form a permanent water tight seal; resultant seal shall be flexible and immune to the effects of wet/dry, freeze/thaw cycles; non-biodegradable and immune to the effects of acids, alkalis, and organics; component packaging and mixing compatible with field conditions and worker safety; cleanup can be accomplished without heavy use of flammable or hazardous chemicals; extraneous sealant left inside pipe shall be readily removable.

B. Chemical joint sealing material shall be acrylic resin type and shall be furnished with activators, initiators, inhibitors and any other materials recommended by the manufacturer for a complete grout system. Sealing grout shall be furnished in liquid form in standard manufacturer's containers. Sealing grout shall be AV-118 Duriflex or AV-100 and manufactured by Avanti International, Houston, Texas (1-800-877-2570), or equal.

C. Alternate sealing materials may be submitted to the Engineer for consideration.

2.04 LIQUID JOINT LUBRICANT

A. The liquid joint lubricant to assist in the installation of the seals and bands shall be a non-toxic, vegetable-based lubricating gel. This gel must not decompose or deteriorate for a minimum storage period of two years. It must have a soft pasty consistency suitable for use in temperatures between 0 and 120 degrees F. It must not have any deteriorating effect on rubber gaskets, must not impart taste or odor to water, or have an objectionable odor. This gel must not support the growth of bacteria or contain any petroleum-based oil or grease.

PART 3 -- EXECUTION

3.01 INSTALLATION

A. The flexible seals to be used in this contract shall be individually sealed in plastic bags and packed in a manner that will not damage or deform them.

B. Seals shall be stored in a cool, dry environment and shall not be allowed to remain in direct sunlight.

C. Prior to fitting, each seal to be used inside the pipe shall be given a thorough visual examination. Particular attention shall be placed on the ribbed sections of the seal.

D. The pipe joint section that will support the seals shall be thoroughly cleaned. Debris or deposits shall be removed from the pipe walls by hand brushing and taken away by hydraulic vacuum. Subaqueous power tools shall be used if any hard scale or stubborn debris remains after hand-brushing. All joint gaps shall be fully cleaned of debris before any installation is performed.

E. Any surface imperfections shall be removed by grinding or scraping. Any deep imperfections shall be filled by properly applying the approved joint filler. The entire surface where the seal shall be placed must be smooth.

F. The seal area shall be properly pre-marked in order to clearly define the seal position.

G. Each seal shall have the joint number indicated so documentation can be provided for each joint repaired.

H. The internal Joint seal shall be assembled and installed in conformance with the manufacturers instructions/recommendations.

3.02 FINAL ACCEPTANCE

A. Upon final acceptance of the project, the contractor shall provide to the Engineer the manufacturer's warranty on material for one year from the date of acceptance. During the warranty period, any defects which affect the integrity of the pipe or seals shall be repaired at the contractor's expense.

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SECTION 02766

SPIRAL WOUND PIPE LINER

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall utilize this liner system only with the express approval of the Owner based upon the submittal of complete qualifications and past experience with spiral wound pipe lining installations.

PART 2 -- PRODUCT

2.01 SPIRAL WOUND PIPE LINER

A. Spiral wound pipe liner shall consist of coils of profile strips that are wound into a host pipe helically, after which a cementious grout is injected into the annular space between the liner and the host pipe, forming a rigid composite structure.

1. Polyvinyl Chloride: Polyvinyl chloride spiral wound pipe liner shall meet the requirements of ASTM F 1697 or ASTM F 1698 and shall have a minimum cell classification of 12454b.

PART 3 -- EXECUTION

3.01 GENERAL

A. Install the liner using spiral winding. Seal or grout the annular space between the interior of the host pipe and the exterior of the liner according to the liner manufacturer's written instructions.

B. Prior to installing the pipe liner, inspect the host pipe and ensure that it is clean, dry and stable. Inspect the host pipe by means of closed circuit television. The closed circuit television inspection may be augmented by a visual inspection in which persons enter a host pipe to inspect it, at no additional cost to the Owner. Obtain written approval from the Engineer prior to allowing persons to enter a host pipe. Furnish all equipment necessary to inspect, remove silt and other debris, and dewater the host pipe to the satisfaction of the Engineer. Seal cracks and joints using an approved chemical grout. Place flowable fill as directed by the Engineer to maintain the stability of the host pipe.

C. Install the pipe liner in accordance with ASTM F 1698 or ASTM F 1741.

3.02 ACCEPTANCE

A. Inspect the complete rehabilitation by means of closed circuit television. Obtain written approval from the Engineer prior to allowing persons to enter a host pipe. Provide the Engineer with videos of all preliminary and final inspections.

- END OF SECTION -

SECTION 02768

SLIP LINING PIPE SYSTEM

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall submit to the Engineer for approval, complete design calculations for the pipe. The calculations shall be signed and sealed by a registered professional Engineer. The criteria for pipe design shall be an H-20 live load and the overburden as shown on the plans (associated with the specific work order), using a dry soil weight of 120 pounds per cubic foot. Design water table elevation shall be verified. The liner design shall utilize the water table level which necessitates the thicker liner. The minimum lifetime shall be 50 years. Pipe liner side support shall be considered as if provided by soil pressure against the liner pipe. The existing pipe shall not be considered as providing any structural support. Modulus of soil reaction for liner pipe calculations shall be considered 1,000 psi. Pipe shall also be designed to withstand all forces imposed by grouting the annular space between the liner and existing pipe lines.

B. The minimum stiffness for all pipes liners shall be at least 36 psi and shall be greater when depth of cover, live load and/or depth of groundwater conditions require.

C. All slip lining pipe to be utilized on this project shall have been manufactured (within six months of installation) for this project. A certification to this effect shall be provided by the pipe manufacturer prior to pipe installation.

D. Pipe shall be as manufactured by: Hobas Pipe U.S.A., Inc., Houston, TX 77073, or approved equal.

PART 2 – PRODUCT

2.01 FIBERGLASS PIPE

A. Glass-fiber reinforced thermosetting-resin pressure pipe shall be either glass-fiber-reinforced thermosetting-resin pipe (RTRP) or reinforced plastic mortar pipe (RPMP) meeting the standards of AWWA C 950, Appendix A for Design Analysis, and ASTM D-3262, as modified herein. Pipe joints shall be gasketed bell and spigot type with EPDM or a neoprene sealing ring. Bell and spigot may be of the external type. No reduction of internal diameter will be acceptable, except as shown in the details for special cases. Nominal full length pipe laying length shall be twenty feet. Pipe shall have an inner corrosion liner of either thermosetting or thermoplastic material with minimum

.05 inch thickness. This liner shall not be considered as providing any structural strength to the pipe. Outside of filament wound (RTRP) pipe shall have a resin rich coating with ultraviolet screening agent and a minimum thickness of .02 inch; while plastic mortar pipe (RPMP) shall have a sand rich outer layer of at least 0.03 inches for UV protection. Resins may not contain pigments or dyes.

B. Pipe shall be routine, quality assurance tested by the manufacturer and certified copies of the results shall be submitted for approval. No pipe shall be installed which is not from a lot of pipe whose test results have been accepted as satisfactory by the Engineer. From each nominal lot of 100 lengths of pipe, a random two percent sampling shall be made and the selected sections shall be tested in accordance with the requirements of ASTM D-3262. If either section fails, an additional three section shall be randomly selected and tested. If an aggregate of two of the test sections fail to meet the Standard's and this Section's requirements, the Engineer may, at his option, either require additional testing or, alternately reject the entire lot of pipe. Failure of any one of any additional sections tested shall render the entire lot as unacceptable for installation.

C. Pipe Stiffness shall be tested per ASTM Standard D 2412 "Test Method For Determination of External Loading Characteristics of Plastic Pipe By Parallel-Plate Loading." Liner pipe and joints shall be designed to properly transmit and withstand all jacking, tension or grouting pressure loads imposed during construction.

D. Each shipment of pipe shall be accompanied by an Affidavit of Compliance to ASTM D-3262 and D-2412 and these Specifications, signed by a responsible officer of the company.

2.02 FIBERGLASS PIPE CLOSURES

A. Closure couplings for pipe closure shall consist of a fiberglass collar with a minimum of two (2) gaskets confined in grooves in the inside surfaces near the ends. The couplings joints shall seal by compressing the gaskets between the outside surface of the liner pipe and the inside of the collar. The gasket should be of the type which allow sliding of the coupling with equal forces in both directions. The minimum coupling width shall be 10-inches. The closure coupling shall be as manufactured by: Hobas Pipe U.S.A., Inc., Houston, TX 77073, or approved equal.

2.03 FIBERGLASS

A. The mitered joints used to construct the nominal diameter fittings shall be fabricated by laying-up the exterior of the pipe only. A sealing lay-up (explained below) must be applied to the interior of the miter.

1. Materials

   a. Isophthalic polyester resin with a 3 to 4 percent ultimate flexural elongation to break suitable for hand layup work.

   b. Curing agent (catalyst) for above resin.

   c. 1.5 oz./ft^2. chopped strand mat, cut to specified width.

   d. 24 oz./yd^2 woven roving, cut to specified width.

   e. Milled fibers and fumed silica to make gap filler resin putty.

2. General Procedures

   a. Insure that surface area of pipe to be bonded is completely dry.

   b. Thoroughly clean area to be bonded to remove all dust, grease or other contaminating materials. Grind through surface (pure resin liner (interior) or the sand layer (exterior), to the glass layer.

   c. Surfaces should again be cleaned to remove all dust from the surface to be bonded.

   d. Fill gaps with resin putty (property catalyzed) and allow to cool.

   e. Assure surface to be bonded is properly ground (full width), dry and clean.

   f. Apply three or five ply layup "sandwich", to the specified width, 380 degrees around the joint to be sealed. (Note: Glass fabrics must be wet-out with properly catalyzed resin.) Roll out flat, removing all air, etc. prior to gel or the resin.

   g. Allow layup to cool until it is no longer hot to the touch. Repeat previous step until all 3 or 5-ply "sandwich" layups have been applied.

   h. After all layups have been applied, paint all ground surfaces (not covered by layup) with catalyzed resin.

   i. Allow layups to cure at least 24 hours (preferably 48 hours) prior to exposure to water or new stresses.

3. General Criteria

   a. All layups shall begin and end with a mat ply.

   b. All structural layups shall be constructed with alternating mat-woven roving construction.

   c. Interior layup seals may be all mat.

   d. Above surface preparation is applicable to both structural and sealing layups.

   e. All structural layups must be bonded to the glass layer in the pipe.

4. Structural Layup

"Sandwich" #1	"Sandwich" #2	"Sandwich" #3	Sealing Layup
8" Wide mat	12" Wide mat	16" Wide mat	8" Wide mat
7" Wide woven	10" Wide woven	15" Wide woven	8" Wide mat
8" Wide Mat	12" Wide mat	16" Wide mat	8" Wide mat
7" Wide woven	10" Wide woven	15" Wide woven	
8" Wide mat	12" Wide mat	16" Wide mat	

PART 3 – EXECUTION

3.01 PIPE SURFACE PREPARATION FOR SLIP LINING

A. Preparation of the interior surface shall be accomplished by a thorough high pressure water-jet or mechanical type cleaning. The existing pipe contains rocks and concrete in some places and will require mechanical cleaning. The pipe shall be left free of all loose sand, rock, or other deleterious materials. Any roots in the pipe shall be either removed or cut off flush with the interior surface. Any protruding steel reinforcement shall be torch cut flush with the interior surface. (Provide a well ventilated, safe atmosphere which will not ignite or explode during any sparking or flame operations. Test atmosphere frequently to assure a suitable atmosphere.) The ledges formed by erosion of the pipe interior shall be cut back as shown on the Plans to provide a smoothly curved molded surface for the liner. Grouting shall be used where necessary to smooth the transition area. However, such grouting shall be utilized only with the prior knowledge and approval of the Engineer. With prior approval of the Engineer, bonding agents of an approved type may be utilized in the grout to improve

adherence. In no case may grouting decrease the pipe internal diameter as measured at the point of grout application to less than the original diameter of pipe. Any protruding pieces of concrete, dropped joints or broken pipe shall be subjected to point or spot repair so that the pipe is left in a clean smooth condition in all respects ready for lining. The pipe line shall be sufficiently cleaned to not inhibit or prevent slip lining, at the Contractor's sole expense.

B. The prepared pipe shall be inspected by the Engineer for cleanliness and smoothness before the Contractor is given approval to line.

3.02 INSTALLATION (ACCESS) PITS

A. Access pits required for the installation of the pipe's slip liner and elbows, annular space grouting or other activity associated with work that requires access to the interior of the pipe shall be made from pits designed and constructed so as to prevent the routine draining of groundwater or stormwater into the open pipe.

B. The Contractor shall submit for approval his proposed method(s) of constructing these pits to accomplish the stated isolation requirements. Pit shall be constructed to provide a virtually impermeable shield to the flow of water into or out of the pit. In addition, the walls shall meet all of the requirements for sheeting and shoring and the Florida Trench Safety Act. Similarly, the floors of the pits, whether constructed at the pipes' centerline or invert, shall also be virtually impermeable, bonded to the pipe and be structurally safe and sound.

C. It is intended that if the Contractor's work method requires maintaining a lowered groundwater table, that the water be pumped from outside the installation pit and shall be at his sole expense.

D. Design of each pit shall accommodate all buried utilities encountered. Each utility feature shall either be protected and maintained in service or, with the utility Owner's permission and approval, relocated away from the pit, all at the Contractor's sole expense.

E. All costs associated with installation pits, including the removal of the sheeting, shall be included in the prices bid.

F. All installation pits not being actively worked upon shall be plated over during all non-active work periods, to promote maintenance of traffic, safety and odor control.

G. It is anticipated that temporary measurement pits be excavated at locations of elbows (requiring special fittings to be installed) in advance of the lining work, so that the pipeline can be measured for necessary custom fitting, design and fabrication. The pipe shall not be broken open for the measurements. However, if the pipe is cored (to

determine wall thickness and inside diameter at the existing elbow), the cored hole shall be suitably sealed to prevent the escape of water before the slip lining pit is constructed. After taking the elbow measurements, the Contractor may either immediately backfill and temporarily pave the measurement pit or plate over the pit to temporarily restore the traveled surface. The Contractor may at his option measure the elbows internally by entering the pipe from an existing manhole.

H. The walls of all plated pits, whether installation pits or temporary measurement pits, shall be designed and constructed to safely maintain the pit and to bear the traffic load passing over it.

I. All installation pits shall be designed by a Professional Engineer, licensed and currently registered in the State of Florida. Submitted designs and details shall bear his seal and signature. Design calculations shall show all loads utilized and all factors applicable to proper design and analysis of the pits.

3.03 SLIP LINING METHOD

A. General

1. Liners shall be installed in accordance with the liner manufacturer's recommendations.

2. Prior to starting the liner insertion, the Contractor must verify that the existing pipe diameter is sufficient by pulling a mandrel through the line.

3. To the maximum extent practical, the Contractor shall utilize full length sections of liner pipe to minimize the number of joints. However, it is recognized that shorter sections will be utilized to negotiate past minor deflection elbows and to accomplish insertions in locations with unusual conditions.

4. Liner pipe shall be held in position within the host pipe so that unintentional "float-up", creation of high or low spots, or misalignment of liner do not occur. Particular care shall be taken during grouting operations. If wood blocking is used to position the liner, it shall be securely banded to the pipe. The Contractor shall attach sufficient blocks to prevent sagging when the liner is filled with water during the grouting process. Clearance shall be left at the top of the pipe to preclude jamming of the liner due to wall thickness variations in the eroded areas of the existing pipe.

B. Slip Lining Through Manholes

1. It is intended that, to the maximum extent practical, pipe liners be extended through manholes so that the channel sections of these manholes shall also be

lined. Access connections shall be made at all locations passing through manholes.

2. At manhole locations without any branch pipe line connections, the liner pipe shall remain intact.

3. At manhole locations containing branch pipe line connections, the Contractor shall install the liner before making the connections. Openings in the liner shall be made in such manner to leave a clean cut and neat clean appearance by an approved method. The method used shall insure a positive seal to prevent the intrusion of any grout into the system during the grouting process.

C. Grouting the Annular Space

1. General

a. As it is generally not practical to hold the slip liner pipe coaxial with the concrete host pipe, the liner shall, therefore, either be installed and kept at the invert or "floated" up to the inside top of the host pipe, utilizing various grouting techniques. The Contractor will be permitted to choose which vertical placement method he will utilize, provided he submits a detailed plan.

b. If the Contractor chooses to keep the liner down on the pipe invert, he must choose between either utilizing a special, low specific gravity grout; grouting in stages with a denser grout, or use of some other approved means to prevent creating sufficient buoyancy to float the liner.

c. For whatever method and system the Contractor submits for approval, he must demonstrate that it has been utilized successfully in similar applications, that the personnel or subcontractor to perform the work has had successful past experience with this method, equipment and grout; and it shall be verified by the pipe manufacturer and that the method meets all of their recommendations.

2. Liner Replacement

a. It shall be the Contractor's responsibility to utilize a system which produces an installed liner that runs on a vertically constant grade from one manhole to the next, without undulations along its length.

b. All costs in correcting changes to the liner invert positioning shall be borne solely by the Contractor.

3. Grouting Plan

a. When grouting the annulus between liner and host pipe, including liners within manholes, the Contractor shall make sure that all gaps are filled to support the liner and provide long term stability. He shall also, by filling the liner with water or other means, exercise caution to see that grout pressure does not float or collapse the liner. Release of water from a filled section of liner shall be accomplished so as not to create a partial vacuum which might collapse the liner or pull it away from the grout. Grouting with lightweight grouts may require additional efforts to keep a dry or pumped down annulus to accomplish total filling of the void. The Contractor shall submit his proposed method for approval to provide routine quality assurance verification that all voids in the annular space have been filled with grout. The grouting pressures utilized shall not exceed 5 psi or that recommended by the liner pipe manufacturer.

b. The Contractor shall engage the services of an approved testing laboratory to certify that the proposed materials and methods comply with these specifications. All proposals shall be submitted to the Engineer for approval.

c. Prior to actual construction, the Contractor shall submit six test cylinders made of grout at the slump he intends to use. These will be tested, in pairs, at 3, 7 and 28 days, and must have minimum compressive strengths of 1800 psi at 28 days for conventional grouts and 300 psi at 28 days for lightweight grouts. For lightweight grouts, in lieu of one and three days compressive tests, test as per ASTM C-403 at 24 hours. If directed, the Contractor shall make test cylinders from grout being used on the job.

d. An overall schedule of grouting plan shall be submitted for approval, with periodic updates made at job meetings.

e. The Contractor shall submit plans, including the proposed number and location of vents relative to liner pipe diameter and stiffness and the depth of flow in the pipeline during the grouting operation.

4. Injection Procedure and Pressure

a. The gauged pumping pressure shall not exceed the liner pipe manufacturer's approved recommendations. Pumping equipment shall be of a size sufficient to inject grout at a volume, velocity and pressure compatible with the size of the annular space and degree of host pipe corrosion. Once grouting operations begin, grouting shall proceed uninterrupted from bulkhead to bulkhead. Grout placement shall not be

terminated until the following have been met, unless otherwise approved by the Engineer: a) The estimated annular volume of grout has been injected; b) The exhausted grout at each vent is not less than eighty-five percent of the density of freshly injected grout; c) The exhausted grout viscosity is not less than eighty-five percent of the original viscosity of the freshly injected grout; and d) When recommended by the grout installer. Grout pressure gauge and recorder shall be installed immediately adjacent to each injection port. During grouting operations, the recorder shall continuously record, on paper with ink, the actual grouting pressure versus time. The gauge shall conform to an accuracy of ± 3.45 kPa (0.5 psi). The range of the gauge shall not be more than 100 percent greater than the design grout pressure. Pressure gauges shall be instrument oil filled and attached to a saddle-type diaphragm seal (gauge saver) to prevent clogging with grout. All gauges shall be certified and calibrated in accordance with ANSI B40, Grade 2A. As a minimum, the grout pressure recordings shall be identified with a date, batch, and time of day grouting was performed and shall be submitted to the Engineer at the end of the work day that grouting was performed.

5. Onsite Testing

   a. The Contractor shall provide all equipment and personnel necessary to perform the following tests for each batch of grout in the presence of the Engineer: a) Density per ASTM C 138 or by other methods as approved by the Engineer; b) Viscosity per ASTM C 939. Grout density that exceeds ± 48 kilograms per cubic meter (3 pounds per cubic foot) of the design density will be rejected.

6. Test Section

   a. The Contractor will be required to perform a test on each type of grout and grout system proposed to be used. The test section to be grouted and the size of the annular space considered for each type of grout system shall be determined by the Contractor and approved by the Engineer.

7. Extended Pipe Liners in Manholes

   a. Where liners are extended through manholes, the Contractor shall grout the annular space between the liner and the formed channel to provide the liner with a fully supported bed.

- END OF SECTION -

SECTION 02934

SODDING

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall provide all labor, materials, and equipment necessary for complete sodding of areas affected by construction. This shall include, but not be limited to, liming, fertilizing, sodding, necessary barriers, tests, and all incidentals to make the Work complete.

1.02 WORK INCLUDED

A. Testing of topsoil

B. Raking and leveling of topsoil as required for sodding

C. Liming and fertilizing of topsoil

D. Laying and rolling of sod

E. Maintaining sod

1.03 SUBMITTALS

A. Submit product source and information sheets in accordance with Section 01300 entitled "Submittals".

PART 2 – PRODUCTS

2.01 MATERIALS

A. Fertilizer

1. Fertilizer shall be commercial fertilizer as manufactured by International Chemical Company, or approved equal.

2. Said fertilizer shall have a 10-20-6 N.P.K. content and contain a minimum of 60 percent of organic material.

3. Fertilizer shall be delivered at the site in the original sealed containers.

B. Sod

1. All sod that is removed or damaged due to the Contractor's Work shall be replaced with the same as was removed or damaged unless otherwise noted on the drawings.

2. The sod shall be as grown by a certified turf nursery, and Contractor shall inform the Owner as to the source of the sod to be utilized prior to ordering and delivery of sod.

3. Floratam St. Augustine turf will be classified as "Number 1/Premium" turf grass per industry standards.

4. Floratam St. Augustine deliveries shall have a "cut sheet" on company letterhead specifying date, field, and time of harvest.

5. Floratam St. Augustine will be machine cut to a uniform soil thickness of approximately 1.5 inches, plus or minus 0.25 inches at the time of harvesting.

6. Floratam St. Augustine shall be mowed to a height of 2 to 3 inches before harvesting.

7. Floratam St. Augustine shall be strong enough so each section can be picked up and handled without damaging turf pieces.

8. Cutting dimensions will be 16-inch x 24 inch slabs or 48inch x 70 feet long roll.

9. Installation should be completed within 6 hours of delivery.

10. Bahia grass turf shall be free of disease, nematodes, and soil borne insects and shall be laid in uniform sized sections. Clumps of Bahia will not be accepted.

11. After the preparation of the areas to be sodded, supply and install sod which is equal to or approved as equal to sod which existed prior to construction. As a minimum, Type No. 1 sod composed of grasses grown from a Bahia Seed mixture shall be used for stabilization of final grade.

12. All sod installed on slopes/banks shall be pinned in place immediately upon installation.

PART 3 – EXECUTION

3.01 INSTALLATION

A. These areas shall be fine graded to achieve the finished subgrade after compaction which shall be obtained by rolling, dragging, or by an approved method which obtains an equivalent compaction to that produced by a hand roller weighing from 75 to 100 pounds per foot of width. All depressions caused by settlement or rolling shall be filled with additional existing or furnished topsoil and regraded and prepared as specified above until it presents a reasonably smooth and even finish at the required sod sub-grade.

B. All sod furnished shall be living sod containing at least 70 percent of thickly matter grasses as specified and shall be free from noxious weeds, disease and insects.

C. No broken pads or torn or uneven ends will be accepted. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. Sod shall not be harvested when its moisture content (excessively wet or dry) may adversely affect its survival.

D. Sod shall be harvested and delivered within a period of 36 hours. Sod shall be installed within 6 hours of delivery. Sod not harvested, delivered and/or installed within these time frames shall be subject to inspection and rejection by Owner or Engineer and shall be removed from the site. A fresh sod supply shall then be furnished at no extra cost to Owner.

E. The topsoil shall not be moist at time of installation; however, it shall contain sufficient moisture so as not be powdery or dusty, both as determined by the supplier's representative.

F. The overlapping of existing lawn with new sod along limit of work lines will not be permitted. Sod shall be laid in strips, edge to edge, with the lateral joints staggered. All minor or unavoidable openings in the sod shall be closed with sod plugs or with topsoil, as directed by Owner or Engineer. However, sod laid with joints determined to be too large shall be lifted and relaid as specified herein at no extra cost to Owner.

G. Immediately after the sod is laid, the sod shall be watered thoroughly by hand or mechanical sprinkling until the sod and at least 2 inches of the top soil bed has been thoroughly moistened. Watering shall continue on a routine basis as needed to establish sod.

H. Contractor shall be responsible to furnish his own supply of water to the site at no extra cost. If possible, Owner shall furnish Contractor, upon request, with a source and supply of water. Contractor shall pay for and obtain a temporary construction meter. Owner will pay for water, if it is available from Owner's system. If Owner's water supply is not available or not functioning, Contractor shall be responsible to furnish adequate supplies at his own cost. All work injured or damaged due to the lack of, or the use of too much water, shall be Contractor's responsibility to correct.

3.02 MAINTENANCE

A. Maintain the entire sodded areas until well established and up to final acceptance at the completion of the Contract. Final completion will not be granted until sod is well established. Maintenance shall include watering as specified, weeding, and removal of stones which may appear. All bare or dead spots which become apparent shall be properly prepared, limed, fertilized, and resodded at Contractor's expense as many times as necessary to secure a good growth. In the event that the sod installation is not accepted by Owner, contractor shall replace sod at his own expense. Sodded areas shall be maintained and cut by Contractor until final acceptance of the project.

B. Contractor shall take whatever measures are necessary to protect the sod while it is developing. These measures shall include furnishing of warning signs, barriers, or any other necessary measures of protection.

- END OF SECTION -

SECTION 03305

CONCRETE AND GROUT

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish all materials for concrete in accordance with the provisions of this Section and shall form, mix, place, cure, repair, finish, and do all other work as required to produce finished concrete, all in accordance with the requirements of the Contract Documents.

B. The following types of concrete shall be covered in this Section:

1. Structure Concrete: Concrete to be used in all cases except where noted otherwise in Contract Documents.

2. Sitework Concrete: Concrete to be used for curbs, gutters, catch basins, sidewalks, cart paths, fence and guard post embedment, and all other concrete appurtenant to electrical facilities unless otherwise shown or noted on the Drawings associated with any Work Order.

C. The following types of grout are covered in this Section:

1. Non-Shrink Grout: This type of grout shall be used wherever grout is called for in the Contract Documents, unless another type is specifically referenced.

2. Epoxy Grout: This type of grout shall be used for grouting reinforcement steel into existing concrete.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Without limiting the generality of other requirements of these specifications, all work specified herein shall conform to or exceed the requirements of the South Florida Building Code and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of this Section.

1. ACI 318 - Building Code Requirements of Reinforced Concrete.

2. CRSI - Manual of Standard Practice.

1.03 SUBMITTALS

A. Mix Designs: Prior to beginning the Work, the Contractor shall submit to the Owner, for review, proposed concrete mix designs which shall show the proportions and gradations of all materials proposed for each class and type of concrete specified herein in accordance with Section 01300 - Submittals. all costs related to such mix design shall be borne by the Contractor.

B. Delivery Tickets: Where ready-mix concrete is used, the Contractor shall provide weighmaster delivery tickets at the time of delivery of each load of concrete. Each certificate shall show the public weighmaster's signature, and the total quantities, by weight of cement, sand, each class of aggregate, admixtures, and the amounts of water in the aggregate and added at the batching plant as well as the amount of water allowed to be added at the site for the specific design mix. Each certificate shall, in addition, state the mix number, total yield in cubic yards, and the time of day, to the nearest minute, corresponding to when the batch was dispatched, when it left the plant, when it arrived at the job, the time that unloading began, and the time that unloading was finished.

C. The Contractor shall furnish shop bending diagrams, placing lists, and Drawings of all reinforcing steel prior to fabrication in accordance with the requirements of Section 01300 - Submittals.

D. The following types of grout are covered in this Section:

1. Nonshrink Grout: This type of grout shall be used wherever grout is called for in the Contract Documents, unless another type is specifically referenced.

2. Epoxy Grout: This type of grout shall be used for grouting reinforcement steel into existing concrete, and for grouting beneath equipment base and sole plates.

1.04 QUALITY ASSURANCE

A. Tests on component materials and for compressive strength and shrinkage of concrete will be performed as specified herein. Test for determining slump will be in accordance with the requirements of ASTM C 143.

B. The cost of all laboratory tests on cement, aggregates, and concrete, will be borne by the Owner. However, the Contractor shall be charged for the cost of any additional tests and investigation on work performed which does not meet the specifications.

C. Concrete for testing shall be supplied by the Contractor at no cost to the Owner, and the Contractor shall provide assistance to the Owner in obtaining samples. The Contractor shall dispose of and clean up all excess material.

D. Field Compression Tests

1. Compression test specimens shall be taken during construction from the first placement of each class of concrete specified herein and at intervals thereafter as selected by the Owner to ensure continued compliance with these specifications. At least one set of test specimens shall be made for each 50 yards of concrete placed. Each set of test specimens shall be a minimum of 4 cylinders.

2. Compression test specimens for concrete shall be made in accordance with ASTM C 31. Specimens shall be 6-inch diameter by 12-inch high cylinders.

3. Compression tests shall be performed in accordance with ASTM C 39. One test cylinder will be tested at 7 days and 2 at 28 days. The remaining cylinder will be held to verify test results, if needed.

PART 2 – PRODUCTS

2.01 CONCRETE MATERIALS

A. Materials shall be delivered, stored, and handled so as to prevent damage by water or breakage. Only one brand of cement shall be used. Cement reclaimed from cleaning bags or leaking containers shall not be used. All cement shall be used in the sequence of receipt of shipments.

B. All materials furnished for the work shall comply with the requirements of ACI 301, as applicable.

C. Storage of materials shall conform to the requirements of ACI 301.

D. Materials for concrete shall conform to the following requirements:

1. Cement shall be standard brand portland cement conforming to ASTM C 150. Type 1.

2. Water shall be potable, clean, and free from objectionable quantities of silty organic matter, alkali, salts and other impurities.

3. Aggregates shall be obtained from pits acceptable to the Owner, shall be non-reactive, and shall conform to the SFBC and ASTM C 33. Maximum size of coarse aggregate shall be as specified in Paragraph 2.05B.

4. Ready-mix concrete shall conform to the requirements of ASTM C 94.

5. Air-entraining agent meeting the requirements of ASTM C 260, shall be used. Sufficient air-entraining agent shall be used to provide a total air content of 3 to 5 percent. The Owner reserves the right, at any time, to sample and test the air-entraining agent received on the job by the Contractor. The air-entraining agent shall be added to the batch in a portion of the mixing water. The solution shall be batched by means of a mechanical batcher capable of accurate measurement.

6. Admixtures: Water reducing and retarding admixture shall be added and measured as recommended by the manufacturer. The addition of the admixture shall be separate from the air entraining admixture. The addition of the admixture shall be completed within one minute after addition of water to the cement has been completed, or prior to the beginning of the last three-quarters of the required mixing, whichever occurs first. Water reducing and set retarding admixtures shall be in conformance with ASTM C 494, Type D.

2.02 CURING MATERIALS

A. Materials for curing concrete as specified herein shall be MB 429 as manufactured by Masterbuilders, or equal. The curing compound shall contain a fugitive dye so that areas of application will be readily distinguishable.

2.03 NON-WATERSTOP JOINT MATERIALS

A. Materials for non-waterstop joints in concrete shall conform to the following requirements:

1. Preformed joint filler shall be a non-extruding, resilient, bituminous type conforming to the requirements of ASTM D 1751.

2. Elastomeric joint sealer shall be a single component, pour grade, polyurethane sealant meeting FS TT-S-230A, Type 1 Materials shall attain Shore A Hardness of 40-45.

B. Joint Cleaner: Joint cleaner shall be as recommended by sealant caulking compound manufacturer.

C. Joint Primer: Joint primer shall be as recommended by sealant manufacturer.

2.04 REINFORCING STEEL

A. All reinforcing steel for all reinforced concrete construction shall conform to the following requirements:

1. Bar reinforcement shall conform to the requirements of ASTM A 615 for Grade 60 Billet Steel Reinforcement with supplementary requirement S-1, and shall be manufactured in the United States.

2. Welded wire fabric reinforcement shall conform to the requirements of ASTM A 185. All welded wire fabric reinforcement shall be galvanized.

2.05 CONCRETE DESIGN REQUIREMENTS

A. General: Concrete shall be composed of cement, admixtures, aggregates and water. These materials shall be of the quantities specified. In general, the mix shall be designed to produce a concrete capable of being deposited so as to obtain maximum density and minimum shrinkage and, where deposited in forms, to have good consolidation properties and maximum smoothness of surface. All changes shall be subject to review by the Owner.

B. Water-Cement Ratio and Compressive Strength: The minimum compressive strength and cement content shall be not less than specified in the following tabulation.

Aggregate Type of Work	Min. 28-Day Compressive Strength per cu yd Ratio (psi)	Max. Aggregate Size (in.)	Min. Cement (sacks)	Max. W/C (by wt).
Structural Concrete:				
All reinforced concrete unless noted otherwise below	4,000 (Class A)	3/4	6.0	0.45
Sitework Concrete:				
Concrete fill, pavement, curbs and sidewalks.	3,000 (Class B)	3/4	5.5	0.50
Seal Concrete:				
Concrete placed under water, using the tremie method.	5,000	3/4	7.0	0.45

Note: One sack of cement equals 94 lbs.

2.06 CONSISTENCY

A. The consistency of the concrete in successive batches shall be determined by slump tests in accordance with ASTM C 143. The slumps shall be as 3 inches, plus or minus 1 inch.

2.07 READY-MIXED CONCRETE

A. Ready-mixed concrete shall conform to meeting the requirements as to materials, batching, mixing, transporting, and placing as specified herein and in accordance with ASTM C 94.

B. Ready-mixed concrete shall be delivered to the site of the work, and discharge shall be completed within one and one half hour after the addition of the cement to the aggregates or before the drum has been revolved 250 revolutions, whichever is first. In hot weather, or under conditions contributing to quick stiffening of the concrete, or when the temperature of the concrete is 85 degrees F or above, the time between the introduction of the cement to the aggregates and discharge shall not exceed 60 minutes.

2.08 NON-SHRINK GROUT

A. Non-shrink grout shall be a prepackaged, inorganic, nongasliberating, nonmetallic, cement-based grout requiring only the addition of water. Manufacturer's instructions shall be printed on each bag or other container in which the materials are packaged. The specific formulation for each class of non-shrink grout specified herein shall be that recommended by the manufacturer for the particular application.

B. Non-shrink grouts shall have a minimum 28-day compressive strength of 5000 psi and shall meet the requirements of CRD C 621.

2.09 EPOXY GROUT

A. Epoxy grout shall be a pourable, non-shrink, 100 percent solids system. The epoxy grout system shall have three components: resin, hardener, and specially blended aggregate, all premeasured and prepackaged. The resin component shall not contain any nonreactive diluents. Resins contained butyl glycidyl ether (BGE) or other highly volatile and hazardous reactive diluents are not acceptable. Variation of component ratios is not permitted unless specifically recommended by the manufacturer. Manufacturer's instructions shall be printed on each container in which the materials are packaged.

B. The chemical formulation of the epoxy grout shall be that recommended by the manufacturer for the particular application.

C. The mixed epoxy grout system shall have a minimum working life of 45 minutes at 75 degrees Fahrenheit.

D. The epoxy grout shall develop a compressive strength of 5000 psi in 24 hours and 10,000 psi in seven days when tested in accordance with ASTM C 579, Method B. There shall be no shrinkage (0.0 percent) and a maximum 4.0 percent expansion when tested in accordance with ASTM C 827.

2.10 GROUT FOR ENCASEMENT OF SLIP LINED PIPE

A. The Contractor shall select grouting systems and methods which may be utilized.

B. Selection of a grouting system shall take into account: liner pipe stiffness, the condition of the host pipe, liner creep rate, temperature, actual size of the annular space, determination of whether the liner pipe will be kept down on the invert of the host pipe or "floated" up to its crown, sewage flow depth, grout set time, spacing between grout injection and bleed off points, grout runout rate, and sewer conditions. These concerns shall be fully addressed in the grouting submittal.

C. This information shall be submitted well in advance of the start of grouting operations so that sufficient time is available for review and change, if required. No mix design shall be used without the approval of the Engineer.

D. The Contractor shall submit the following to the Engineer at least thirty working days prior to the start of the grouting operation.

1. The proposed grouting mix design in accordance with Section 2.10, Subsection G below.

2. The proposed grout densities and viscosities.

3. Initial set time of the grout.

4. The 24-hour and 28-day minimum grout comprehensive strengths.

5. The grout working time before fifteen percent change in density or viscosity occurs.

6. The proposed grouting method and procedures.

7. The maximum injection pressures.

8. Proposed grout stage volumes for one stage or multiple stages.

9. Bulkhead designs and locations.

10. Buoyant force calculations during grouting.

11. Flow control.

12. Provisions for re-establishment of service connections.

13. Pressure gauge, recorder, and field equipment certifications (e.g. calibrations by an approved certified lab).

14. Vent location plans.

15. Written confirmation that the Contractor has coordinated grouting procedures with the grout installer and the liner pipe manufacturer.

16. References to where this grout and grouting system has been successfully utilized.

E. Data for items 1 through 5 shall be derived from trial grout batches performed by an approved, independent testing laboratory.

F. For each different type of grout or variation in procedure or installation, a complete package shall be submitted. The submittal shall include each of the above items and the sewer locations or conditions to which it applies.

G. Performance Requirements: The Contractor shall submit the proposed grout mixes, methods, plans and criteria of the grouting operations. The grouting system shall have sufficient gauges, monitoring devices, and test to determine the effectiveness of the grouting operation and to ensure compliance with the liner pipe specifications and design parameters.

H. Mix Designs: One or more mixes shall be developed to completely fill the annular space based on the following requirements:

1. Size of the annular void.

2. Absence or presence of groundwater.

3. Sufficient strength and durability to prevent the movement of liner pipe.

4. Provide less than one percent shrinkage by volume, if grouting in a single stage. Larger shrinkage of as much as five percent may be tolerated in multi-stage grouting plans if there is a workable method to prevent voids on the last stage.

I. Grouting Equipment: The materials shall be mixed in equipment of sufficient size and capacity to provide the desired amount of grout material for each stage in a single operation. The equipment shall be capable of mixing the grout at densities required for

the approved procedure and shall also be capable of changing density as dictated by field conditions any time during the grouting operation. If truck delivered grouts are to be utilized, submit a means for approval which has a successful "track record" to monitor density and insure a consistent product.

J. Conventional Grouts: Conventional "heavy" grout for filling the annulus between fiberglass liner pipe and the existing concrete pipe shall have the following properties: minimum compressive strength of 500 psi at 24 hours and 1800 psi at 28 days; maximum weight loss of grout during the wet/dry durability test of four percent; flow ability and set time suitable for application. Grout shall be made with Type II Portland cement with no chloride additives. Any additives shall be approved by the Engineer prior to use. The Contractor, in cooperation with the pipe supplier, shall develop a grout mix to meet these requirements and submit the mix to the Engineer for review. The mix shall be supported by independent test lab data verifying its properties. If the pipe supplier has previously developed a mix with the required properties, and has independent test data on file, this material will be acceptable for submission and review.

K. Lightweight Grouts

1. Lightweight grouts designed not to "float" the liner shall be as supplied and installed by Pacific International Grout Co., Bellingham, WA, or approved equal. The grout materials shall consist of portland cement or a mixture of portland cement and fly ash and/or additives. The mix shall meet the following requirements:

2. Comprehensive: The grout shall have a minimum penetration resistance of 689.48 kPa (100 psi) in 24 hours when tested in accordance with ASTM C 403 and a minimum compressive strength of 2.07 MPa (300 psi) in 28 days when tested in accordance with ASTM C 495 or C109.

3. Density / Viscosity: The Contractor shall design a grout mix with density to meet the requirements of Section 5.04.4 and to prevent floating of the liner pipe. The apparent viscosity shall not exceed twenty seconds in accordance with ASTM C 939 unless otherwise approved by the Engineer.

2.11 CHEMICAL SEALING MATERILS FOR ACTIVE LEAKS

A. Chemical sealing materials used on this Project shall have the following properties: react quickly to form a permanent water tight seal; resultant seal shall be flexible and immune to the effects of wet/dry, freeze/thaw cycles; non-biodegradable and immune to the effects of acids, alkalis, and organics in sewage; component packaging and mixing compatible with field conditions and worker safety; cleanup can be accomplished without heavy use of flammable or hazardous chemicals; extraneous sealant left inside

pipe shall be readily removable, and shall be compatible with the fiberglass slip liner or CIPP liner resin system utilized.

B. Chemical joint sealing material shall be acrylic resin type and shall be furnished with activators, initiators, inhibitors and any other materials recommended by the manufacturer for a complete grout system. Sealing grout shall be furnished in liquid form in standard manufacturer's containers. Sealing grout shall be AV-118 Duriflex manufactured by Avanti International, Houston, Texas (1-800-877-2570) or approved equal.

PART 3 – EXECUTION

3.01 PROPORTIONING AND MIXING

A. Proportioning: Proportioning of the concrete mix shall conform to the requirements of Chapter 3 "Proportioning" of ACI 301.

B. Mixing: Mixing of concrete shall conform to the requirements of Chapter 7 of said ACI 301 Specifications.

C. Slump: Maximum slumps shall be 4 inches, plus or minus 1 inch.

D. Retempering: Retempering of concrete or mortar which has partially hardened will not be permitted.

3.02 PREPARATION OF SURFACES FOR CONCRETING

A. General: Earth surfaces shall be thoroughly wetted by sprinkling, prior to the placing of any concrete, and these surfaces shall be kept moist by frequent sprinkling up to the time of placing concrete thereon. The surface shall be free from standing water, mud, and debris at the time of placing cement.

B. No concrete shall be placed until the reinforcement steel and formwork have been erected in a manner acceptable to the Owner. The Contractor shall notify the Owner not less than 2 working days prior to concrete placement, allowing for inspection and any corrective measures which are required.

C. Existing concrete surfaces upon or against which concrete is to be placed shall be given a roughened surface for good bond. Joint surfaces shall be cleaned of all laitance, loose or defective concrete, and foreign material. Such cleaning shall be accomplished by sandblasting followed by thorough washing. All pools of water shall be removed from the surface of construction joints before the new concrete is placed.

D. Corrosion Protection: Pipe, conduit, dowels, and other ferrous items required to be embedded in concrete construction shall be so positioned and supported prior to

placement of concrete that there will be a minimum of 2 inches clearance between said items and any part of the concrete reinforcement will not be permitted.

E. Cleaning: The surfaces of all metalwork to be in contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed.

3.03 HANDLING, TRANSPORTATION, AND PLACING

A. General: Placing of concrete shall conform to the applicable requirements of Chapter 8 of ACI 301 and the requirements of this Section.

B. Non-Conforming Work or Materials: Concrete which upon or before placing is found not to conform to the requirements specified herein shall be rejected and immediately removed from the Work. Concrete which is not placed in accordance with these Specifications, or which is of inferior quality, shall be removed and replaced by and at the expense of the Contractor.

C. Unauthorized Placement: No concrete shall be placed except in the presence of duly authorized representative of the Owner. The Contractor shall notify the Owner in writing at least 24 hours in advance of placement of any concrete.

D. Placement in Slabs: Concrete placed in sloping slabs shall proceed uniformly from the bottom of the slab to the top, for the full width of the pour. As the work progresses, the concrete shall be vibrated and carefully worked around the slab reinforcement, and the surface of the slab shall be screeded in an up-slope direction.

3.04 FINISHING CONCRETE SURFACES

A. General: Surfaces shall be free from fins, bulges, ridges, offsets, honeycombing, or roughness of any kind, and shall present a finished, smooth, continuous hard surface. Allowable deviations from plumb or level and from the alignment, profiles, and dimensions shown on the Drawings are defined as tolerances and are specified herein. These tolerances are to be distinguished from irregularities in finish as described herein.

B. Unformed Surfaces: After proper and adequate vibration and tamping, all unformed top surfaces of slabs and curbs shall be brought to a uniform surface with suitable tools.

C. Slabs shall receive a steel trowel finish without local depressions or high points. In addition, the surface shall be given a light heirbroom finish with brooming perpendicular to drainage unless otherwise shown. The resulting surface shall be rough enough to provide a nonskid finish.

3.05 CURING AND DAMPPROOFING

A. All concrete shall be cured for not less than 14 days after placing, in accordance with the methods specified herein for the different parts of the work, and described in detail in the following paragraphs.

B. The surface shall be sprayed with al liquid curing compound. It shall be applied in accordance with the manufacturer's printed instructions at a maximum coverage rate of 200 square feet per gallon and in such a manner as to cover the surface with a uniform film which will seal thoroughly.

C. Care shall be exercised to avoid damage to the seal during the curing period. Should the seal be damaged or broken before the expiration of the curing period, the break shall be repaired immediately by the application of additional curing compound over the damaged portion.

D. Wherever curing compound may have been applied by mistake to faces against which concrete subsequently is to be placed and to which it is to adhere, said compound shall be entirely removed by wet sandblasting just prior to the placing of new concrete.

E. Curing compound shall be applied as soon as the concrete has hardened enough to prevent marring on uniformed surfaces, and within 2 hours after removal of forms from contact with formed surfaces. Repairs required to be made to formed surfaces shall be made within the said 2-hour period; provided, however, that any such repairs which cannot be made within the said 2-hour period shall be delayed until after the curing compound has been applied. When repairs are to be made to an area on which curing compound has been applied, the area involved shall first be wet-sandblasted to remove the curing compound, following which repairs shall be made as provided herein.

3.06 PROTECTION

A. The Contractor shall protect all concrete against injury until final acceptance by the Owner. Fresh concrete shall be protected from damage due to rain. The Contractor shall provide such protection while the concrete is still plastic and whenever such precipitation is imminent or occurring.

3.07 TREATMENT OF SURFACE DEFECTS

A. As soon as forms are removed, all exposed surfaces shall be carefully examined and any irregularities shall be immediately rubbed or ground in a satisfactory manner in order to secure a smooth, uniform, and continuous surface. Plaster or coat surfaces to secure a smooth, uniform, and continuous surface. Plastering or coating of surfaces to be smoothed will not be permitted. No repairs shall be made until after inspection by the Owner. In no case will extensive patching of honeycombed concrete be permitted. Concrete containing minor voids, holes, honeycombing, or similar depression defects

shall have them repaired as specified herein. Concrete containing extensive voids, holes, honeycombing, or similar depression defects, shall be completely removed and replaced. All repairs and replacements herein specified shall be promptly executed by the Contractor at its own expense.

3.08 CARE AND REPAIR OF CONCRETE

A. The Contractor shall protect all concrete against injury or damage from excessive heat, lack of moisture, overstress, or any other cause until final acceptance by the Owner. Particular care shall be taken to prevent the drying of concrete and to avoid roughening or otherwise damaging the surface. Any concrete found to be damaged, or which may have been originally defective, or which becomes defective at any time prior to the final acceptance of the completed work, or which departs from the established line or grade, or which, for any other reason, does not conform to the requirements of the Contract Documents, shall be satisfactorily repaired or removed and replaced with the acceptable concrete at the Contractor's expense.

3.09 FABRICATION OF REINFORCING STEEL

A. Reinforcing steel shall be accurately formed to the dimensions and shapes shown on the Drawings, and the fabricating details shall be prepared in accordance with ACI 315 and ACI 318, except as modified by the Drawings.

3.10 PLACING REINFORCING STEEL

A. Reinforcing steel shall be accurately positioned as shown on the Drawings, and shall be supported and wired together to prevent displacement, using annealed iron wire ties or suitable clips at intersections. All reinforcing steel shall be supported by concrete, plastic or metal supports, spacers or metal hangers which are strong and rigid enough to prevent any displacement of the reinforcing steel. Where concrete is to be placed on the ground, supporting concrete blocks (or dobies) shall be used, in sufficient numbers to support the bars without settlement, but in no case shall such support be continuous. All concrete blocks used to support reinforcing steel shall be tied to the steel with wire ties which are embedded in the blocks. For concrete over formwork, the Contractor shall furnish concrete, metal, plastic, or other acceptable bar chairs and spacers.

3.11 CLEANING AND PROTECTION OF REINFORCING STEEL

A. Reinforcing steel shall at all times be protected from conditions conducive to corrosion until concrete is placed around it.

B. The surfaces of all reinforcing steel and other metalwork to be contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed. Where there is a

delay in depositing concrete, reinforcing shall be reinspected and, if necessary recleaned.

3.12 GENERAL

A. All surface preparation, curing, and protection of cement grout shall be as specified herein. The finish of the grout surface shall match that of the adjacent concrete.

B. The Contractor through the manufacturer of nonshrink grout and epoxy grout shall provide on-site technical assistance upon request, at no additional cost to the Owner.

C. All mixing, surface preparation, handling, placing, consolidation, and other means of execution for prepackaged grouts shall be done according to the instructions and recommendations of the manufacturer.

D. Grout shall be placed in such a manner, for the consistency necessary for each application, so as to assure that the space to be grouted is completely filled.

- END OF SECTION -

SECTION 03480

PRECAST CONCRETE MANHOLES, HANDHOLES AND VAULTS

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall construct all precast concrete items as required in the Contract Documents, including all appurtenances necessary to make a complete installation.

B. Where an item on the Drawings is called out as a Florida Department of Transportation (FDOT) index number then the item shall be constructed per the requirements of the FDOT.

C. Owner may choose to furnish select items described by this specification to be installed by Contractor.

1.02 QUALITY CONTROL

A. Without limiting the generality of other requirements of these specifications, all work specified herein shall conform to or exceed the requirements of the South Florida Building Code and the applicable requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of this Section:

1. ASTM C478 Specification for Precast Reinforced Concrete Manhole Sections.

2. ACI 318 Building Code Requirements for Reinforced Concrete.

1.03 SUBMITTALS

A. The Contractor shall submit shop drawings for all precast concrete items. Submitted drawings shall show all dimensions, location and type of lifting inserts, and details of reinforcement and joints in accordance with Section 01300 entitled "Submittals".

B. For all precast items which are manufactured, the Contractor shall also submit a list of the design criteria used by the manufacturer.

C. For all precast items which are manufactured, and which have a clear dimension, in any direction, greater than or equal to 4' - 0", the Contractor shall submit design calculations showing, at least, the design loads and stresses on the item. Calculations shall be signed and sealed by a Professional Engineer registered in the State of Florida.

D. The Contractor shall submit certified reports for all lifting inserts, showing allowable design loads on the inserts.

PART 2 – PRODUCTS

2.01 PRECAST CONCRETE MANHOLE SECTIONS

A. Precast concrete sections, twenty-four inches and larger in diameter, which are used as manhole sections, shall conform to ASTM C478 except as modified herein. Reinforcement, if shown, shall be as shown on the Drawings. Sections shall have tongue and groove joints. Tapered top sections shall be supplied where they are shown on the drawings, or where they are otherwise indicated to be necessary. The design and manufacture of the sections shall be based on H-20 traffic loading. Reinforcement shall conform to the requirements of the Section entitled "CONCRETE AND GROUT". Minimum wall thickness shall be eight inches. Cement shall be ASTM C150, Type II. The date and name of manufacturer shall be marked inside each precast section.

2.02 PRE-FORMED JOINT SEALANT

A. The joint sealing compound shall preformed, cold-applied, ready to use plastic joint sealing compound, "Ram-Nick" by K.T. Snyder Company; or equal.

2.03 MORTAR

A. Mortar used between the sections of precast concrete manholes and vaults shall be as recommended by the section manufacturer, subject to the requirements of Division 4.

2.04 NON-SHRINK GROUT

A. Non-shrink grout shall be as specified in the Section entitled "CONCRETE AND GROUT".

2.05 BRICK

A. Brick shall be sound, hard-burned common brick conforming to ASTM C32, Grade MS.

2.06 CONCRETE BALLAST

A. Concrete ballast shall be Class B concrete in conformance with the Section entitled "CONCRETE AND GROUT". Ballast shall be provided as necessary to insure manhole resists flotation when empty and subjected to full height groundwater conditions.

PART 3 – EXECUTION

3.01 DESIGN CRITERIA

A. Minimum structural design loading for underground precast concrete vaults shall be as indicated in ASTM C857, unless otherwise noted herein. Precast items subjected to vehicular traffic shall be designed for H-20 traffic loading. Other precast items shall be designed for a vertical live load of 300 psf.

B. Walls of precast items shall be designed for a vertical surcharge of 100 psf.

C. Precast manholes and vaults shall be designed to resist flotation when totally empty and subjected to groundwater full height of the manhole/vault.

3.02 INSTALLATION

A. Installation shall conform with Section 03400, Precast Concrete and with the manufacturer's recommendations or to Section 03300, Cast-in-Place Concrete.

B. Frames and covers or grates shall be set so that tops are at elevations indicated on the Drawings or flush with finished grade where no elevation is indicated.

C. Joints between riser sections shall be sealed with joint sealant.

D. All openings in utility structures shall have flexible rubber sleeves sized to fit the connecting pipe and installed to provide watertight joints in accordance with the manufacturer's recommendations. The interior of the sleeve shall be filled with Class B concrete.

E. Openings that are too large for flexible rubber sleeves shall utilize rubber bladder seals which are expanded by water injected using a pressure pump.

F. All units shall be installed plumb and level.

G. All lift holes and joints shall be filled with non-shrink grout conforming to Section 03600, grout inside and out.

H. The manhole frames shall be set to their required elevations either with grade rings or with two or three courses of brick masonry laid around the top of the upper wall section. Such brick work shall be given a 1-inch mortar coat on the inside and out.

I. Concrete ballast shall be placed so that it bears directly on the utility structure base against the outer wall monolithically encircling the structure for the full height indicated on the

Drawings. Additional ballast may be required where the depth or elevation of the structure varies from the Drawings.

J. Brick or Concrete Block: Brick or concrete block shall be laid with broken joints and all horizontal and vertical joints filled with cement-sand mortar. Outside of walls shall be plastered with a minimum 1-inch thick coat of cement-sand mortar troweled smooth.

K. Connection to Existing Pipe

1. Verify the diameter and invert elevation of existing pipe to be connected to new utility structures prior to beginning work on the structures.

2. Provide adequate protection to prevent damage to the existing pipe.

3. Provide adequate means for plugging and/or transferring the existing flow in the pipe to allow for the construction of inverts and grouting.

4. Cut off the existing pipe sufficiently for connection to the new structure and remove.

5. Thoroughly clean all foreign matter and coat the pipe surface with epoxy adhesive where the pipe joins the new structure.

6. Install a flexible joint sealer around the pipe.

7. Grout inside and outside of wall penetration with nonshrink grout.

L. Backfill structures in accordance with Section 02200, Earthwork.

M. Clean all structures of any accumulation of silt, debris, or foreign matter and keep clean until final acceptance of the work.

N. Excavation shall conform to Section 02200, Earthwork.

O. Structure bases shall bear on a minimum of 8 inches of compacted stone unless otherwise indicated on the Drawings.

P. Channel Inverts

1. Inverts shall be placed using Class B concrete with forms sufficient to provide a smooth half-round shape as shown on the Drawings. Manhole bases employing full depth precast inverts are acceptable.

2. Where the slope of the line does not change through a manhole, a constant slope shall be maintained in the invert. Where slope changes occur within a given manhole, the transition shall be smooth and shall occur at the approximate center of the manhole.

3. Inverts shown on the Drawings are taken at the center of the manhole unless otherwise noted.

3.03 ADJUSTMENTS TO EXISTING UTILITY STRUCTURES

A. Adjust structures as indicated on the Drawings using concrete or cast iron adjustment rings by approved methods.

B. Clean covers and inlet castings of all foreign material and paint with one coat of coal tar epoxy.

3.04 ADJUSTING COLLARS AND FINAL ADJUSTMENTS

A. Adjusting collars shall be as shown on the Drawings. Final adjustments shall be made so that the manhole ring and cover will be smooth and flush with the finished grade of the adjacent surface, or as otherwise indicated on the Drawings for manholes shown above grade.

3.05 FLUSHING

A. Flush all storm sewer pipelines and manholes. Remove and dispose of debris.

- END OF SECTION -

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SECTION 15002

REINFORCED CONCRETE PIPE

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish and install all reinforced concrete culverts and drain pipes and all appurtenant work, complete in place and in accordance with the requirements of FDOT, the Town of Jupiter, other applicable regulatory agencies and the Contract Documents.

B. The Owner may choose to furnish select materials under the Sales Tax and Use Program for Contractor to install.

PART 2 -- PRODUCTS

2.01 CONCRETE CULVERT AND DRAIN PIPE

A. All reinforced concrete culvert and drain pipe shall be manufactured in accordance with ASTM C76, Wall Type B or C, and shall be of the class that equals or exceeds the pipe class as specified herein or as shown on the Contract Drawings. Minimum pipe laying lengths shall be four (4) feet. Portland cement shall conform to ASTM C150, Type II.

B. Joints for the reinforced concrete culvert and drain pipe shall have bell and spigot ends with flexible plastic gaskets meeting the requirements of AASHTO M198, Type B.

C. Provided slotted pipe where indicated for the exfiltration trench. Provide non-slotted pipe were indicated in the details for connection with stormwater manholes.

D. All pipe shall be aged at the manufacturing plant for at least fourteen (14) days before delivery to the job site.

PART 3 -- EXECUTION

3.01 INSTALLATION

A. All piping shall be aligned and routed as shown and installed in accordance with the Contract Drawings.

B. All pipe joints shall be wrapped with geotextile filter fabric prior to backfilling in accordance with Town of Jupiter standards.

C. All penetrations into inlet structures shall be grouted completely using non-shrink grout.

3.02 FLUSHING

A. Flushing - After backfilling, all storm sewers shall be flushed with water. Flushing shall be a minimum velocity of 2.5 feet per second for a duration acceptable to the Owner. Flushing shall remove all dirt, stones, pieces of wood and other debris which accumulated in the sewer during construction. The Contractor shall provide a means acceptable to the Owner for removal of debris flushed from each section of storm sewer. If after flushing, any obstructions remain, they shall be removed at the Contractor's expense. The Contractor shall provide all water, plugs, hoses, pumps, equipment, etc. necessary for the proper flushing and testing of the storm sewers

3.03 INSPECTION

A. All new storm drain pipeline shall be inspected by the Town's representative. Owner may request Contractor provide video inspection via robotic camera for an additional fee. The recorded DVD shall be delivered to the Town no later than 2 (two) Working Days after completion of the inspection. The DVD shall become the property of the Town. The Town will review the CCTV inspection records within ten (10) Working Days and will notify the Contractor if:

1. The review revealed a satisfactory installation, or
2. The review revealed deficiencies.

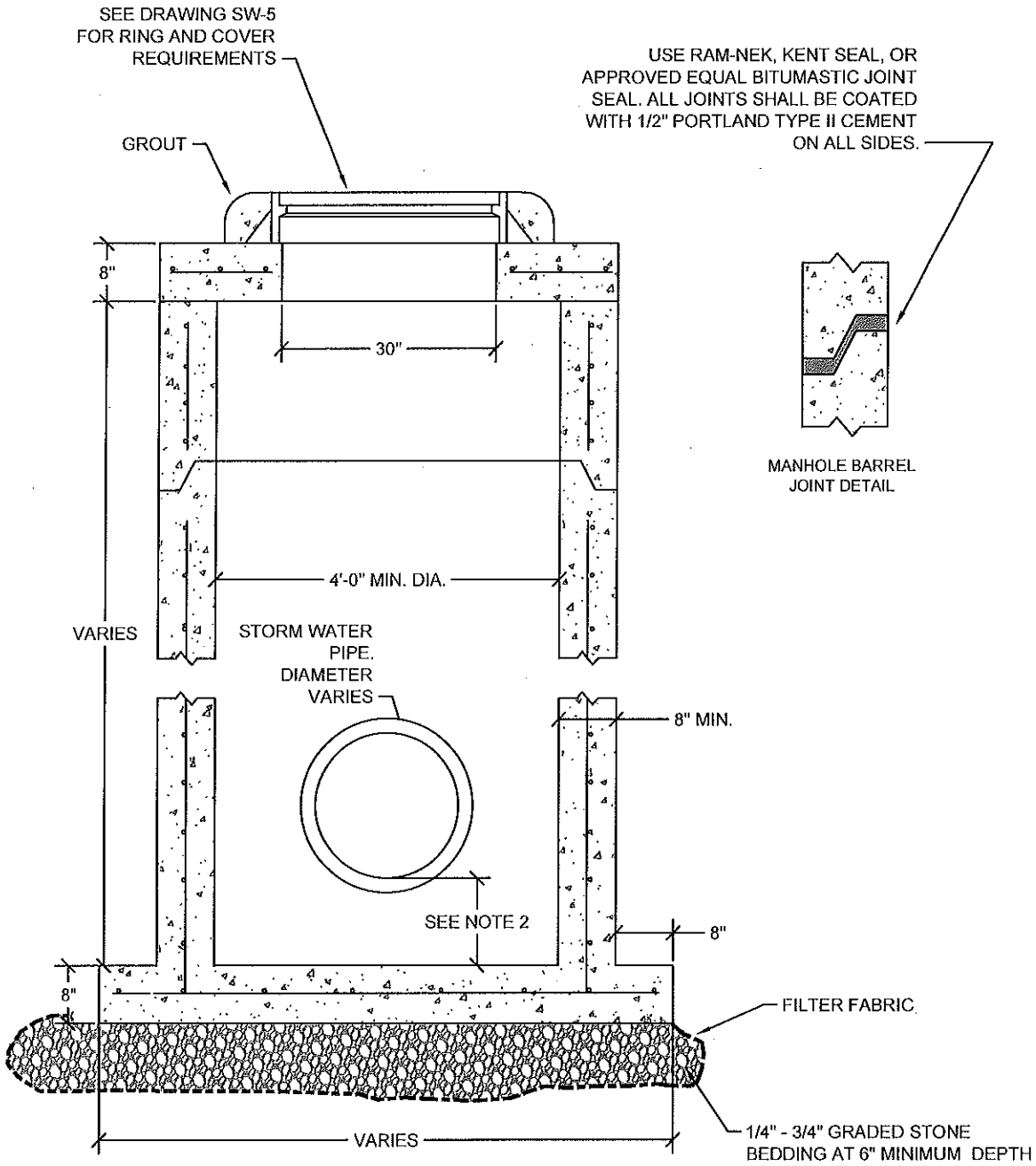
B. The following deficiencies in storm drain installation that are identified by the Inspector or by television inspection shall be corrected by the Contractor at no cost to the Town:

1. Joint separation greater than one-half inch (1/2").
2. Offset joints greater than one-half the pipe wall thickness.
3. Joint deflection of more than seventy-five percent (75%) of manufacturer's recommended maximum.
4. Cracked or damaged pipe, including liner pipe.
5. Debris in the line.
6. Identifiable sags or high points in the line greater than ¾ inches in pipes 6" and larger.

C. The Contractor will be notified in writing of any deficiencies revealed by the inspection(s) that require repair. The Contractor may request a review of the video with the Town. Upon completion of the required corrective actions, the storm drain will be re-inspected

(televised if previously televised) at no additional cost to the Owner. This process shall be repeated until the review of the recorded television inspection reveals a satisfactory installation.

-END OF SECTION-



NOTES:

1. MANHOLES SHALL CONFORM TO ASTM C478 (F'c=4,000 PSI CONCRETE).
2. PIPE PENETRATIONS ON NEW STRUCTURES SHALL BE CAST AT A MINIMUM OF12 INCHES ABOVE THE MANHOLE BOTTOM. OPENINGS REQUIRED ON EXISTING MANHOLES SHALL BE CORED WITH APPROVED CORING EQUIPMENT.
3. ANNULUS AREA BETWEEN PIPE AND MANHOLE SHALL BE COMPLETELY FILLED WITH CLAY BRICK AND TYPE II PORTLAND CEMENT.
4. MANHOLE BASE AND WALL SHALL BE A MINIMUM OF 8 INCHES THICK CONCRETE WITH #5 RE-BAR AT 12" O.C.E.W. BASE WALLS SHALL BE CAST WITH THE BOTTOM SLAB.
5. REFER TO FDOT SPECIFICATIONS FOR ROADWAY AND TRAFFIC DESIGN, LATEST EDITION FOR ADDITIONAL MANHOLE DESIGN INFORMATION.
6. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.

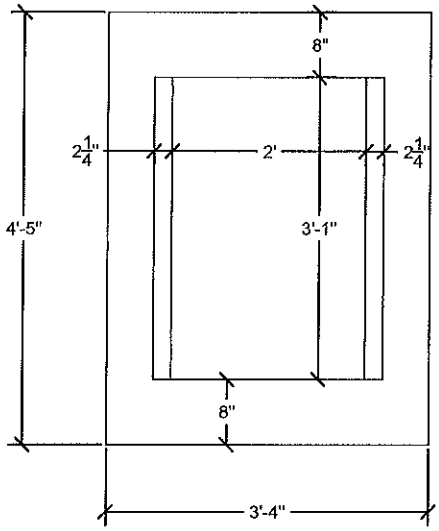
NOT TO SCALE

STORM SEWER PRECAST MANHOLE

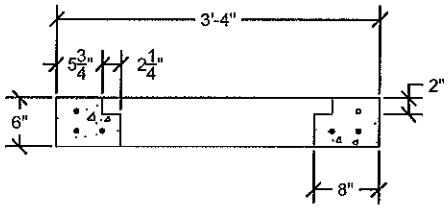
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 10/2013

DRAWING No. SW-1



PLAN

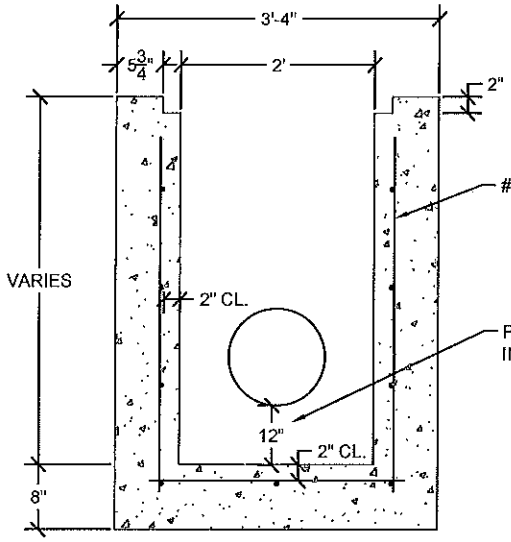


COLLAR SECTION

CAST IRON U.S. FOUNDRY FRAME/GRATE:
DIRECT TRAFFIC AREAS
STD 4155-6210
HD 4155-6212

DITCH BOTTOM INLETS FOR PEDESTRIAN/BICYCLE TRAFFIC:
CONCRETE COLLAR/STEEL GRATE (NOT IN ROADWAY) STD 6610
HD 6212

DITCH BOTTOM INLET:
CONCRETE COLLAR/STEEL GRATE (NOT IN ROADWAY) STD 6210
HD 6611



SECTION

NOTES:

1. DISTANCES BEWTEEN STRUCTURES SHALL NOT EXCEED 300 FEET FOR PIPES LESS THAN 24" IN DIAMETER.
2. DISTANCES BETWEEN INLET STRUCTURES SHALL NOT EXCEED 400 FEET FOR PIPES 24" DIAMETER OR LARGER.
3. METAL FRAME AND GRATE SHALL BE USED IN ASPHALT AND CONCRETE AREAS. ROUND BOTTOMS MAY BE USED.
4. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.

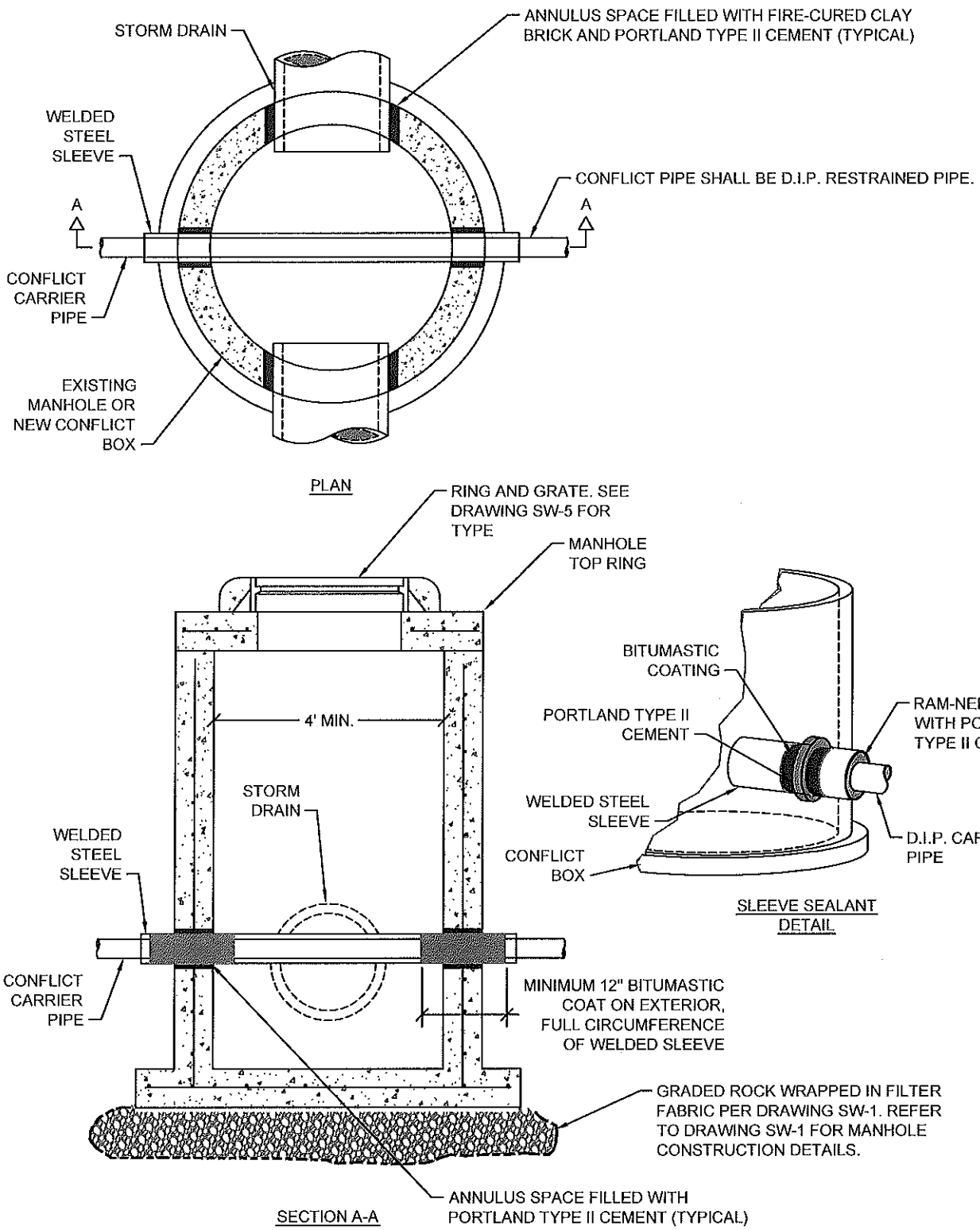
NOT TO SCALE

TYPICAL "C" INLET DETAIL

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 10/2013

DRAWING No. SW-2



NOTE:
INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.

CONFLICT STRUCTURE DETAIL

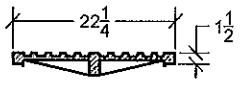
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 10/2013
DRAWING No. SW-4

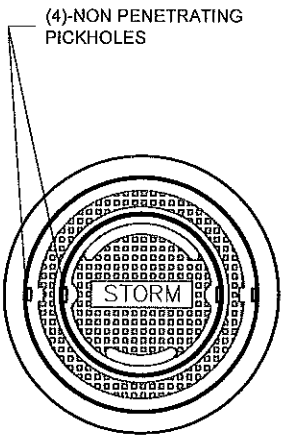
BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE:

1. IT IS A BASIC REQUIREMENT OF THE TOWN THAT EXCAVATIONS SHALL BE FREE FROM WATER BEFORE PIPE OR STRUCTURES ARE INSTALLED. THE CONTRACTOR SHALL PROVIDE PUMPS, AND OTHER APPURTENANT EQUIPMENT NECESSARY TO REMOVE AND MAINTAIN WATER AT SUCH A LEVEL AS TO PERMIT CONSTRUCTION IN A DRY CONDITION. THE CONTRACTOR SHALL CONTINUE DEWATERING OPERATIONS UNTIL BACKFILLING HAS PROGRESSED TO A SUFFICIENT HEIGHT (ABOVE THE WATER TABLE) TO PREVENT GROUNDWATER FROM ENTERING THE EXCAVATION.
2. IF NECESSARY THE CONTRACTOR SHALL USE DEWATERING SYSTEMS THAT ENSURE CONTINUOUS DEWATERING DURING INSTALLATION. WATER FROM THE TRENCHES AND EXCAVATION SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE INJURY TO PUBLIC HEALTH, TO PUBLIC OR PRIVATE PROPERTY, TO THE WORK COMPLETED OR IN PROGRESS, TO THE SURFACE OF THE STREETS, CAUSE ANY INTERFERENCE WITH THE USE OF THE SAME BY THE PUBLIC, OR CAUSE POLLUTION OF ANY WATERWAY OR STREAM.
3. THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN AND PROPOSED METHODS FOR TRENCH WATER DISPOSAL TO THE TOWN FOR APPROVAL PRIOR TO EXCAVATING.
4. STRUCTURE EXCAVATIONS AND PIPE TRENCHES SHALL BE EXCAVATED TO THE ELEVATION NECESSARY FOR INSTALLATION OF THE PIPE AND/OR STRUCTURE (INCLUDING BEDDING MATERIAL IF REQUIRED) ON UNDISTURBED SOIL. IN THE EVENT OF OVER EXCAVATION, BACKFILL WITH ACCEPTABLE MATERIAL, UP TO THE LEVEL NECESSARY. THIS BACKFILL SHALL BE TAMPED AND COMPACTED TO PROVIDE A PROPER BEDDING FOR THE PIPE OR STRUCTURE. BEDDING SHALL BE PROVIDED UNDER THE BRANCH OF ALL FITTINGS TO FURNISH ADEQUATE SUPPORT AND BEARING UNDER THE FITTING.
5. ALL STRUCTURE EXCAVATIONS AND PIPELINE TRENCHES SHALL BE BACKFILLED TO A LEVEL 12 INCHES ABOVE THE BOTTOM OF THE STRUCTURE OR TOP OF THE PIPE WITH SELECT BACKFILL OBTAINED FROM THE EXCAVATION. SUCH MATERIAL SHALL BE PLACED IN 6 INCH LAYERS; EACH COMPACTED TO THE DENSITIES SPECIFIED BELOW. ONLY HAND OPERATED MECHANICAL COMPACTING EQUIPMENT SHALL BE USED WITHIN SIX INCHES OF THE INSTALLED PIPE.
6. AFTER THE INITIAL PORTION OF BACKFILL HAS BEEN PLACED AS SPECIFIED ABOVE, AND AFTER ALL EXCESS WATER HAS COMPLETELY DRAINED FROM THE TRENCH, BACKFILLING THE REMAINDER OF THE TRENCH OR EXCAVATION MAY PROCEED. THE REMAINDER OF THE BACKFILL SHALL BE SELECTED MATERIAL OBTAINED FROM THE EXCAVATION AND SHALL BE PLACED IN HORIZONTAL LAYERS, THE DEPTH OF WHICH SHALL NOT EXCEED THE ABILITY OF THE COMPACTION EQUIPMENT EMPLOYED, AND IN NO EVENT SHALL EXCEED A DEPTH OF 12 INCHES. EACH LAYER SHALL BE MOISTENED, TAMPED, PUDDLED, ROLLED AND/OR COMPACTED TO THE DENSITIES SPECIFIED BELOW.
7. STRUCTURE AND PIPE TRENCH BACKFILL AND BEDDING WHICH DOES NOT COMPLY WITH THE SPECIFIED DENSITIES, AS INDICATED BY SUCH TESTS, SHALL BE REWORKED AND RECOMPACTED UNTIL THE REQUIRED COMPACTION IS SECURED. IN THE EVENT PROPER COMPACTION CANNOT BE OBTAINED UNDER ANY STRUCTURES, PIPE OR AT CONNECTION, WRITTEN APPROVAL TO USE PROPER BEDDING STONE, ¼" TO ¾" GRADED STONE (100% PASSING 1"), IS REQUIRED BY THE TOWN OF JUPITER FOR BEDDING AND SELECT PORTIONS OF BACKFILL.
8. EXCAVATED UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR. MATERIALS REMOVED FROM THE TRENCHES SHALL BE STORED IN SUCH A MANNER THAT IT WILL NOT UNDULY INTERFERE WITH SITE OPERATIONS, TRAFFIC ON PUBLIC ROADWAYS AND SIDEWALKS AND SHALL NOT BE PLACED ON PRIVATE PROPERTY. IN CONGESTED AREAS, SUCH MATERIALS AS CANNOT BE STORED ADJACENT TO THE TRENCH OR USED IMMEDIATELY AS BACKFILL SHALL BE REMOVED TO OTHER CONVENIENT PLACES OF STORAGE ACCEPTABLE TO THE TOWN.
9. COMPACTION OF BACKFILL SHALL BE 98 PERCENT OF THE MAXIMUM DENSITY WHERE THE TRENCH IS LOCATED UNDER STRUCTURES OR PAVED AREAS, AND 95 PERCENT OF THE MAXIMUM DENSITY ELSEWHERE. MORE THOROUGH COMPACTION MAY BE REQUIRED WHEN WORK IS PERFORMED IN OTHER REGULATORY AGENCIES JURISDICTIONS, SUCH AS THE DOT. MAXIMUM DENSITY OF THE MATERIAL IN TRENCHES SHALL BE DETERMINED BY AASHTO T-180.
10. LABORATORY AND FIELD DENSITY TESTS, WHICH IN THE OPINION OF THE TOWN ARE NECESSARY TO ESTABLISH COMPLIANCE WITH THE COMPACTION REQUIREMENTS SHALL BE REQUIRED BY THE TOWN. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE TESTING LABORATORY. THE TOWN SHALL ESTABLISH DEPTHS AND LOCATIONS OF TESTS. MODIFICATIONS TO THE PROGRAM WILL BE MADE AS JOB CONDITIONS CHANGE.

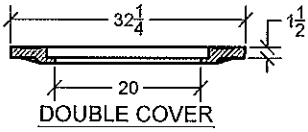
ALL DIMENSIONS IN INCHES



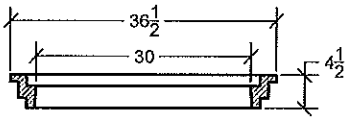
COVER



USF 1300 RING AB/M COVER



DOUBLE COVER



RING

NOTES:

1. MATERIAL: ASTM A-48 CLASS 35B GREY IRON
2. RING WT: 185 LBS
3. OUTER COVER WT: 190 LBS. APP.
4. INNER COVER WT: 105 APP.
5. TO BE USED ON SLABS THAT WILL BE SET AT FINISHED ELEVATION.

STRUCTURE/PIPE INSTALLATION & FRAME/GRATE REQUIREMENTS

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 07/2013

DRAWING No. SW-05

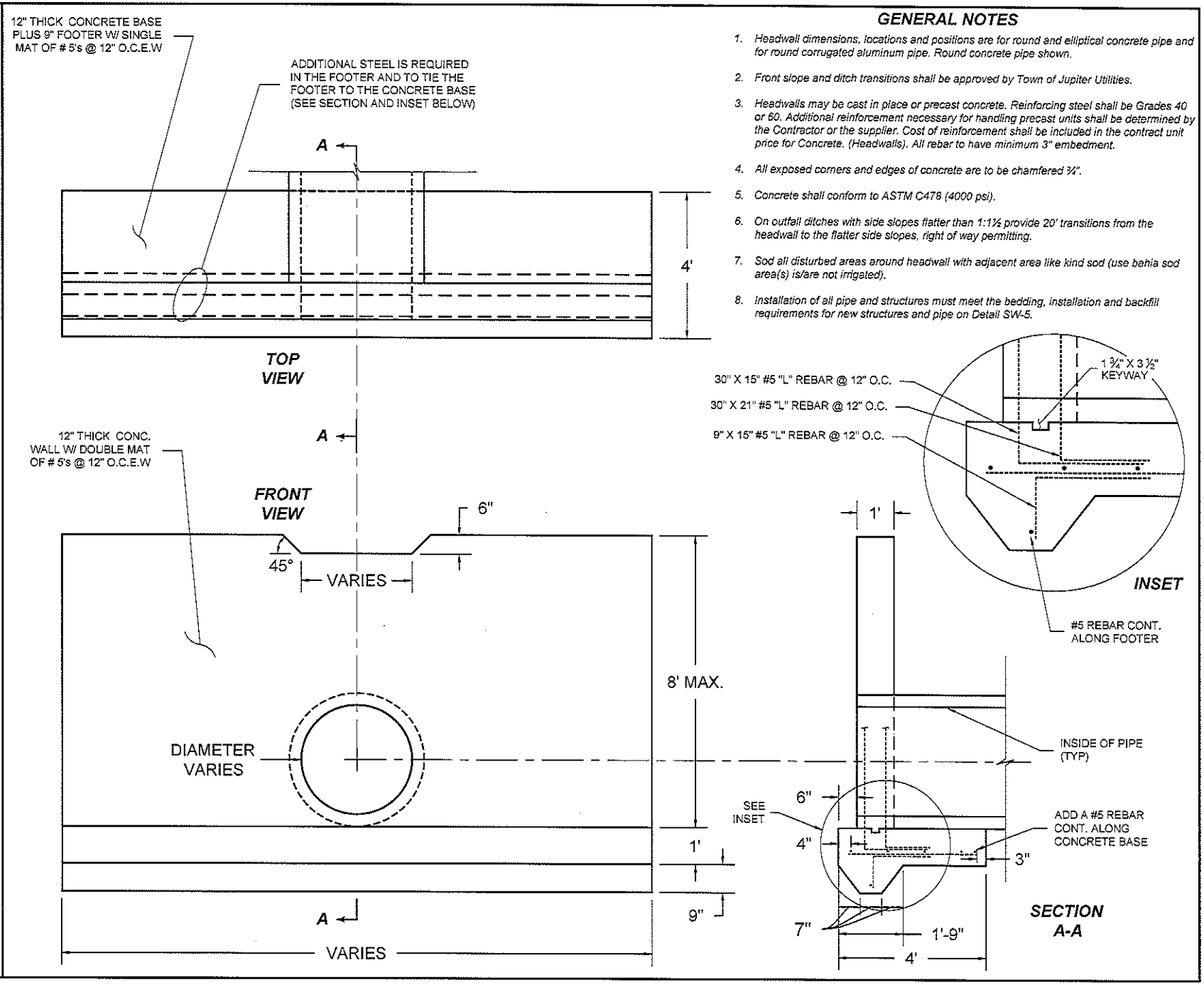
JUPITER UTILITIES

CONSTRUCTION STANDARDS AND DETAILS

CONCRETE HEADWALL

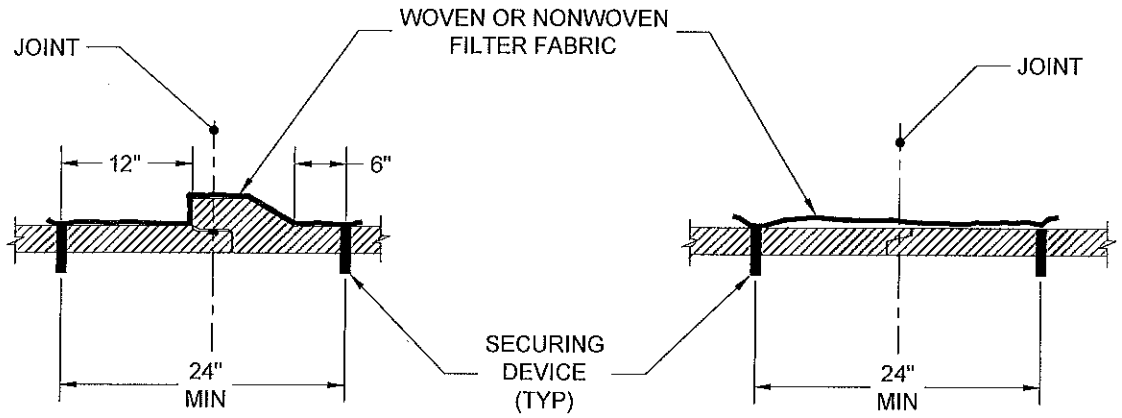
DATE APPROVED: 10/2013

DRAWING No. SW-06



GENERAL NOTES

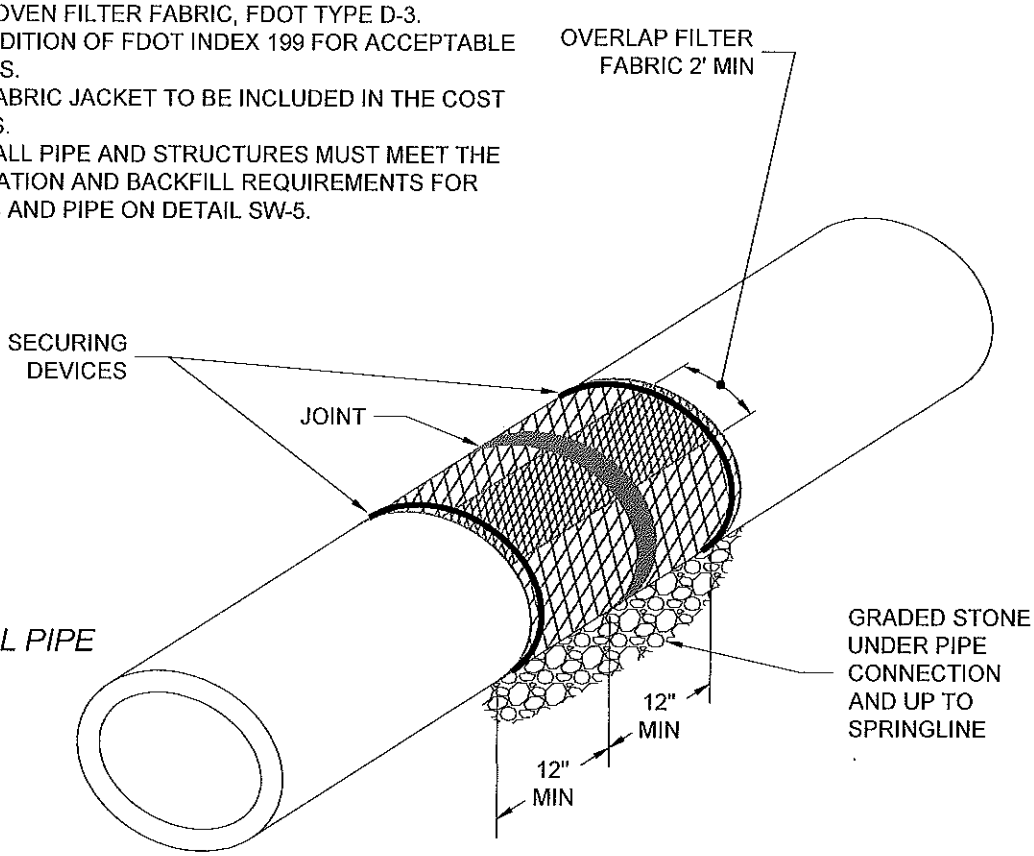
1. *Headwall dimensions, locations and positions are for round and elliptical concrete pipe and for round corrugated aluminum pipe. Round concrete pipe shown.*
2. *Front slope and ditch transitions shall be approved by Town of Jupiter Utilities.*
3. *Headwalls may be cast in place or precast concrete. Reinforcing steel shall be Grades 40 or 60. Additional reinforcement necessary for handling precast units shall be determined by the Contractor or the supplier. Cost of reinforcement shall be included in the contract unit price for Concrete. (Headwalls). All rebar to have minimum 3" embedment.*
4. *All exposed corners and edges of concrete are to be chamfered ¾".*
5. *Concrete shall conform to ASTM C478 (4000 psi).*
6. *On outfall ditches with side slopes flatter than 1:1½ provide 20' transitions from the headwall to the flatter side slopes, right of way permitting.*
7. *Sod all disturbed areas around headwall with adjacent area like kind sod (use bahia sod area(s) is/are not irrigated).*
8. *Installation of all pipe and structures must meet the bedding, installation and backfill requirements for new structures and pipe on Detail SW-5.*



PIPE SECTIONS

NOTE:

1. SECURING DEVICES MAY BE ELIMINATED BY DOUBLE WRAPPING PIPE WITH FILTER FABRIC.
2. FOR ALL PIPE TYPES - CONCRETE PIPE SHOWN.
3. WOVEN OR NONWOVEN FILTER FABRIC, FDOT TYPE D-3.
4. SEE THE LATEST EDITION OF FDOT INDEX 199 FOR ACCEPTABLE SECURING DEVICES.
5. COST OF FILTER FABRIC JACKET TO BE INCLUDED IN THE COST OF PIPE CULVERTS.
6. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.



ELLIPTICAL PIPE SHOWN

NOT TO SCALE

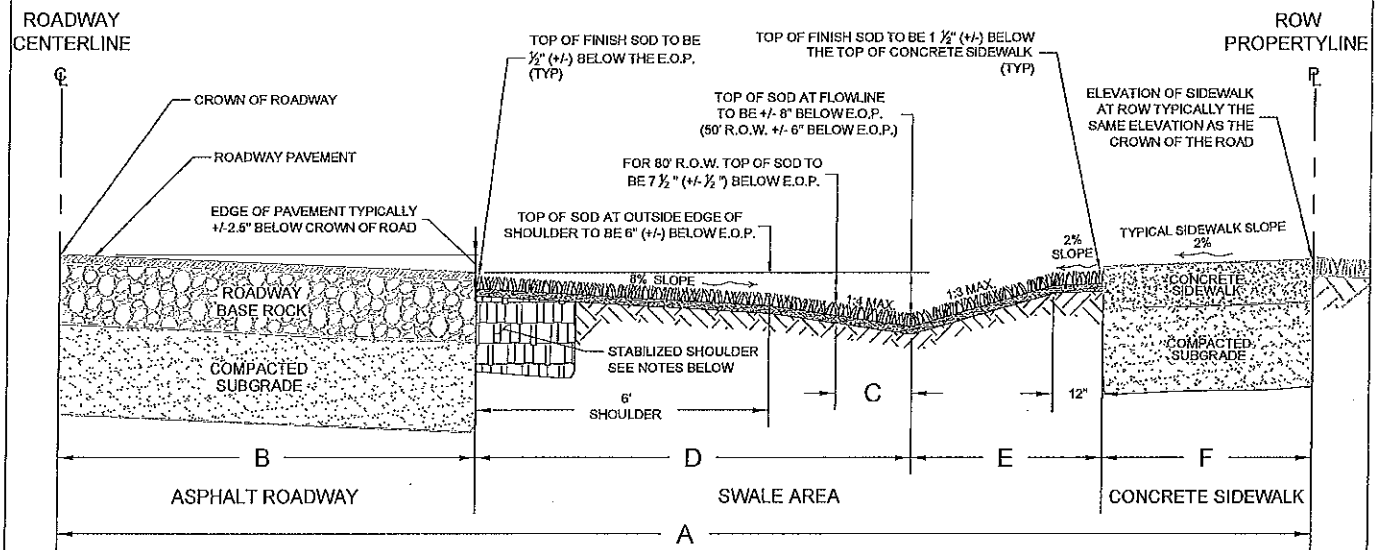
FILTER FABRIC JACKET FOR STORMWATER PIPE

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

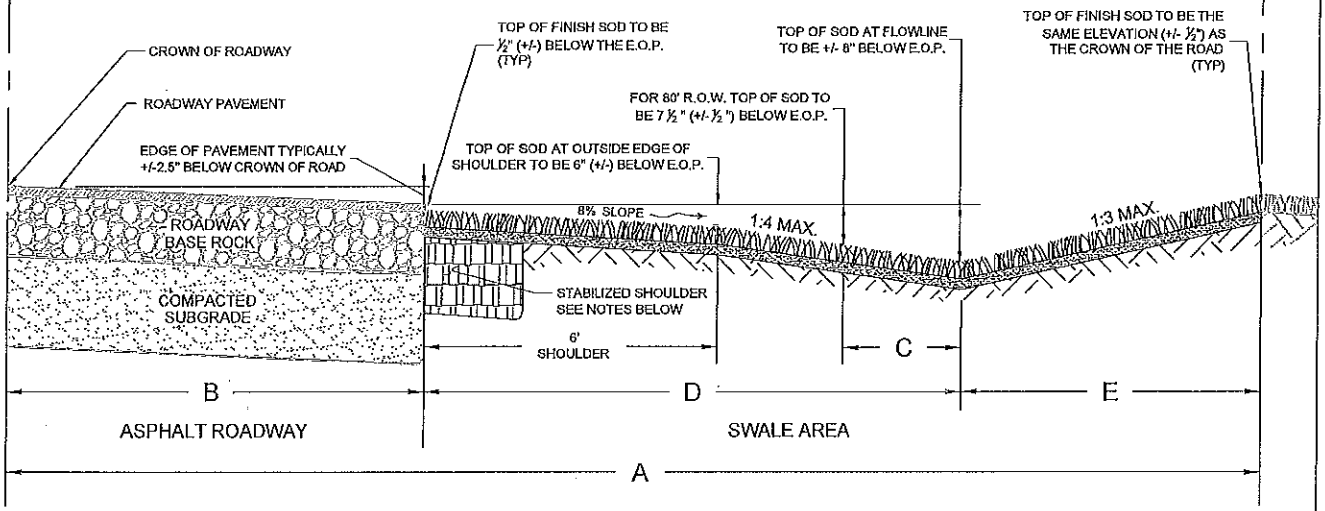
DATE APPROVED: 10/2013

DRAWING No. SW-7

ROW SWALE SECTION WITH SIDEWALK



ROW SWALE SECTION WITHOUT SIDEWALK



ROW WIDTH	(A)	LANE WIDTH (B)	WIDTHS IN SWALE SECTION (C)	(D)	(E)	SIDEWALK WIDTH (F)
ROW WITH SIDEWALK						
50 FEET	25'	10'	--	6'	4'	5'
60 FEET	30'	11'	--	8'	6'	5'
80 FEET	40'	12'	6'	15'	7'	6'
ROW WITH NO SIDEWALK						
50 FEET	25'	10'	--	8'	7'	--
60 FEET	30'	11'	--	9'	11'	--
80 FEET	40'	12'	7'	17'	11'	--

PLEASE NOTE:

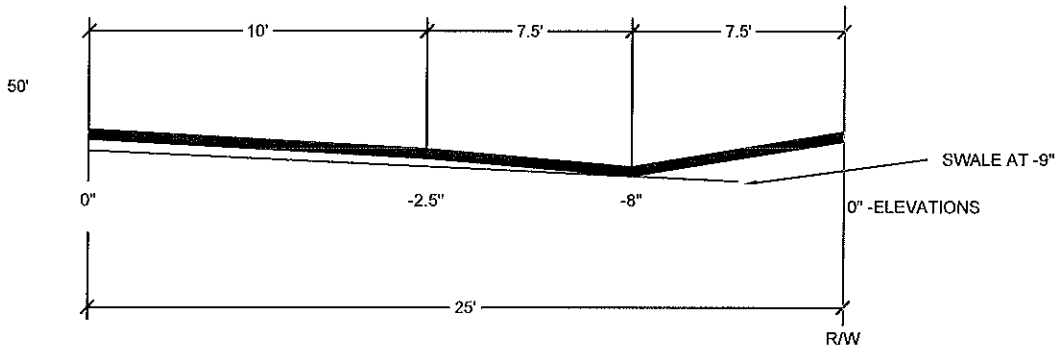
- STABILIZE ROADWAY SHOULDER +/- 24" WIDE X 12" DEEP TO LBR OF 40 AND COMPACT TO 98% OF AASHTO T-180
- FOR R.O.W'S LESS THE 50 FEET OR SWALE AREAS LESS THEN 10 FEET SHAPE AND DEPTHS AS DIRECTED BY THE TOWN OF JUPITER STAFF.

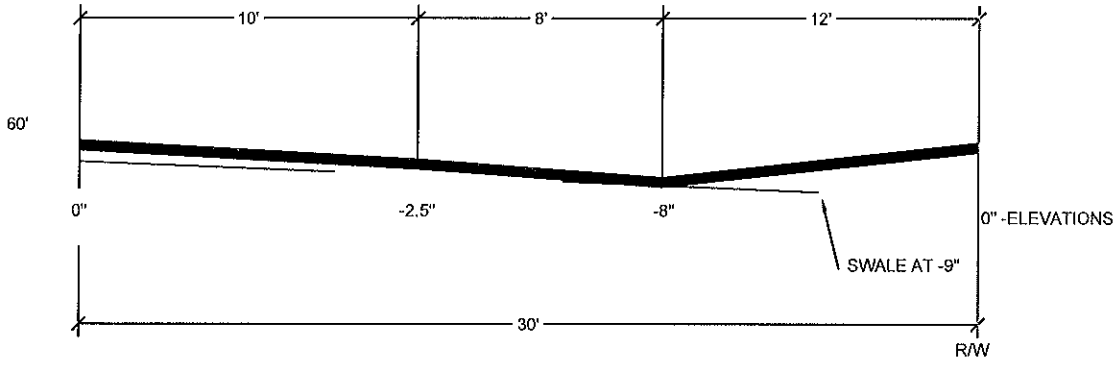
RIGHT OF WAY SWALE SECTION

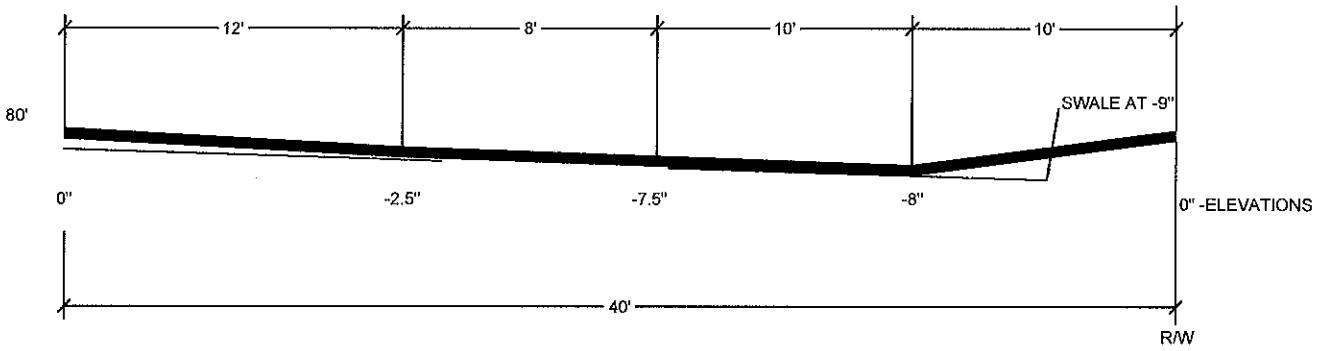
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 06/2013

DRAWING No. SW-8





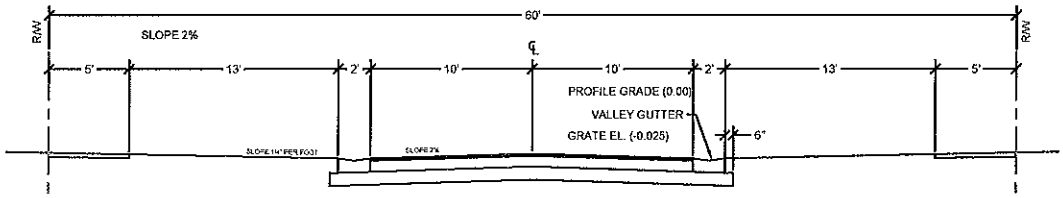


TYPICAL SWALE SECTION WITH ROADWAY & TURNOUT FOR PUBLIC ROADS

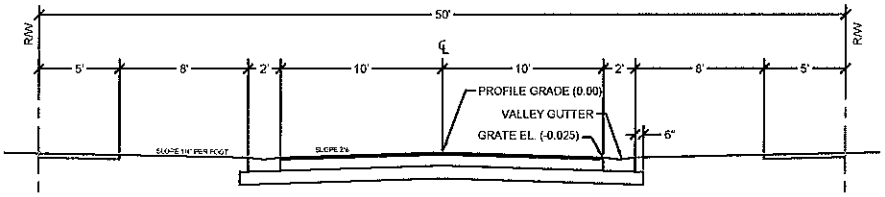
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

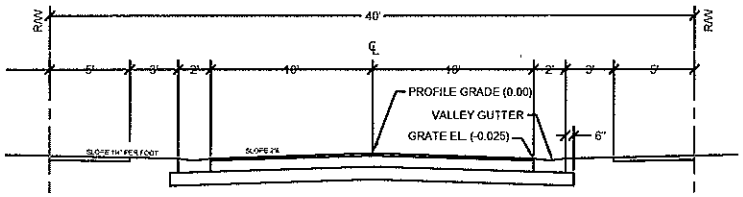
DRAWING No. SW-9



TYPICAL 60' RIGHT OF WAY
SECTION DETAIL



TYPICAL 50' RIGHT OF WAY
SECTION DETAIL



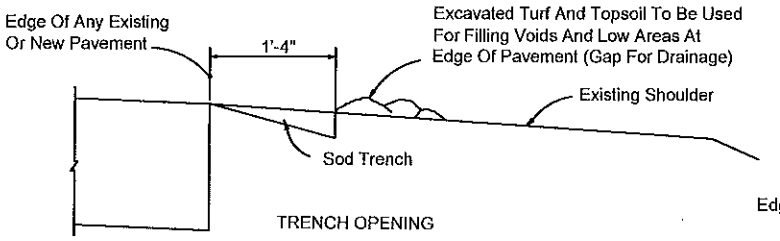
TYPICAL 40' RIGHT OF WAY
SECTION DETAIL

TYPICAL VALLEY GUTTER SECTION DETAIL OF PUBLIC RIGHT OF WAYS

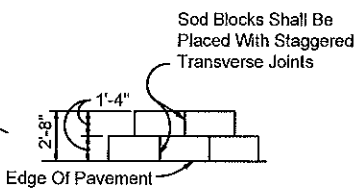
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

DRAWING No. SW-10

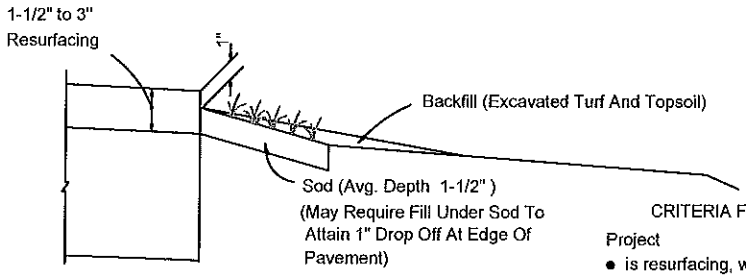


TRENCH OPENING



PLAN VIEW

PATTERN DETAIL

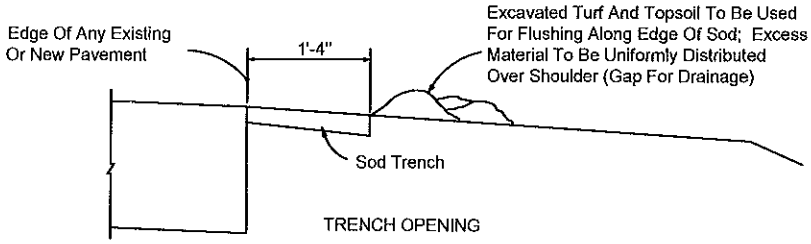


COMPLETED SHOULDER

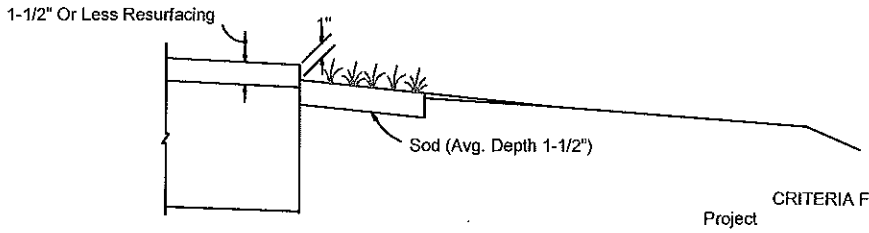
CRITERIA FOR USING TREATMENT TYPE R1

Project

- is resurfacing, widening and resurfacing or construction of shoulder pavement
- is rural or is urban without curb and gutter
- has good existing soil and turf with no significant shoulder erosion (Isolated areas of significant erosion will require additional special treatment. Where poor soil and/or turf conditions exist shoulder reworking, Type R-2, should be applied.)
- resurfacing build-up is 1-1/2" to 3"



TRENCH OPENING



COMPLETED SHOULDER

CRITERIA FOR USING TREATMENT TYPE R-3

Project

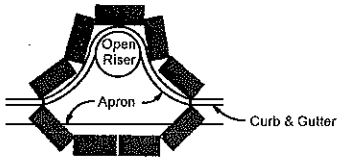
- is resurfacing, widening and resurfacing or construction of shldr. pavt.
- is rural or is urban without curb and gutter
- has good existing soil and turf with no significant shoulder erosion (isolated areas of significant erosion will require additional special treatment. Where poor soil and/or turf conditions exist shoulder reworking, Type R-2, should be applied.)
- resurfacing build-up is 1-1/2" or less

SHOULDER SODDING AND REWORKING DETAIL

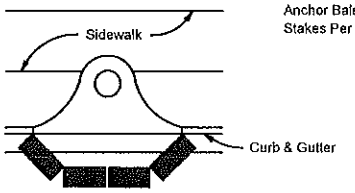
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

DRAWING No. SW-11



PARTIAL INLET

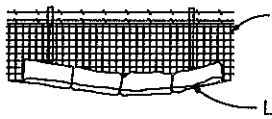


COMPLETED INLET

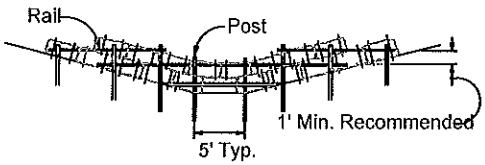


DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

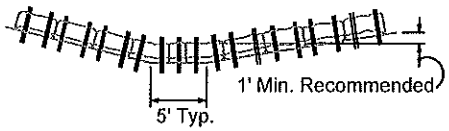


BALES BACKED BY FENCE



Anchor Lower Bales With 2 - 2" x 2" x 4' Stakes Per Bale.
Anchor Top Bales To Lower Bales With 2 - 2" x 2" x 4' Stakes Per Bale.

ELEVATION
TYPE II

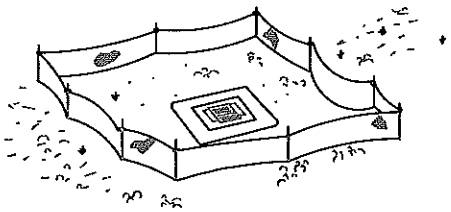


Anchor Bales With 2 - 2" x 2" x 4' Stakes Per Bale

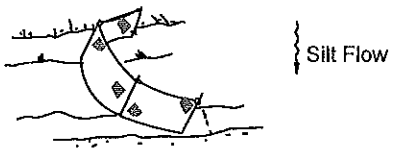
ELEVATION
TYPE I

Application and Spacing: The use of Types I & II bale barriers should be limited to the conditions outlined in Chart I, Sheet 1 of 3, Index No. 102, FDOT standard specifications.

BARRIER FOR UNPAVED DITCHES



Type III Silt Fence Protection Around Ditch Bottom Inlets.



Note: Spacing for Type III Fence to be in accordance with Chart 1, Sheet 1 of 3 and ditch installations at drainage structures Sheet 2 of 3.

Type III Silt Fence

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS

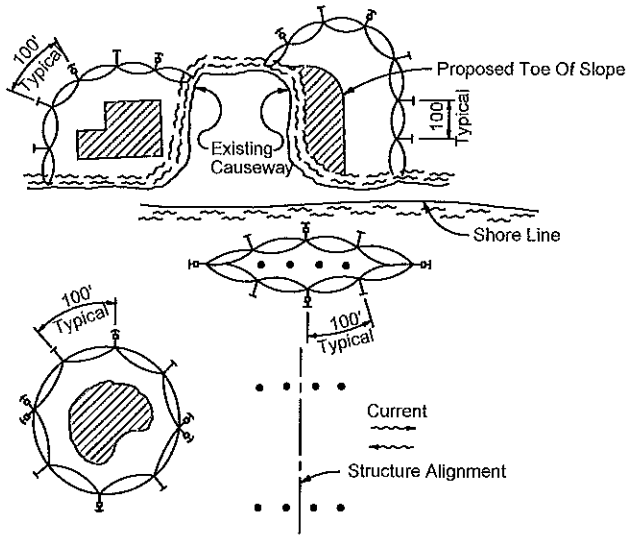
BALED HAY OR STRAW BARRIERS AND SILT FENCES

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

DRAWING No. SW-12

TURBIDITY BARRIERS

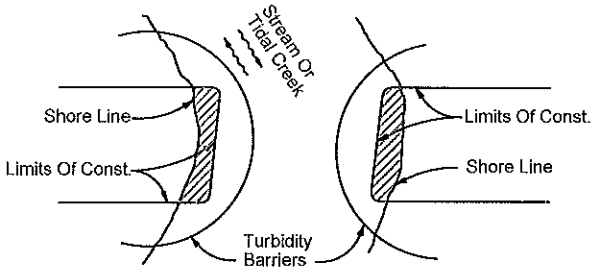


LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

NOTES:

1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the FDOT Standard Specifications.



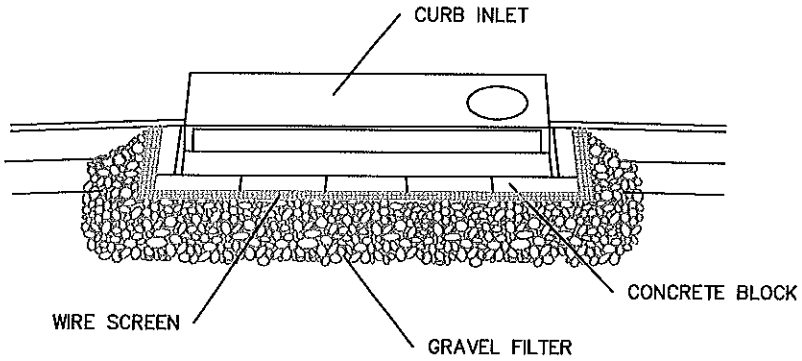
NOTE:
TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE(S) WILL BE AT THE CONTRACTORS OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIER AND/OR STAKED TURBIDITY BARRIER. POSTS IN STAKED TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

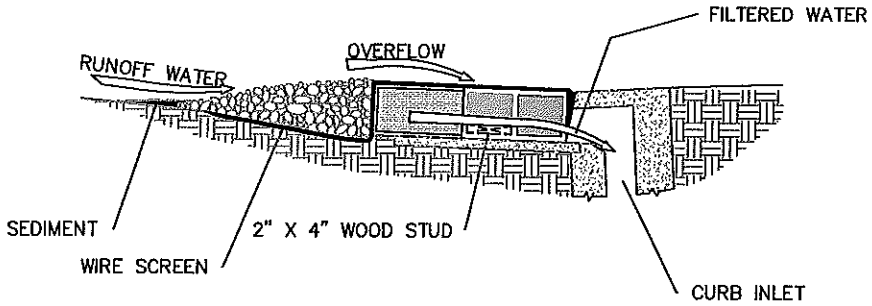
STORMWATER TURBIDITY BARRIERS

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

DRAWING No. SW-13

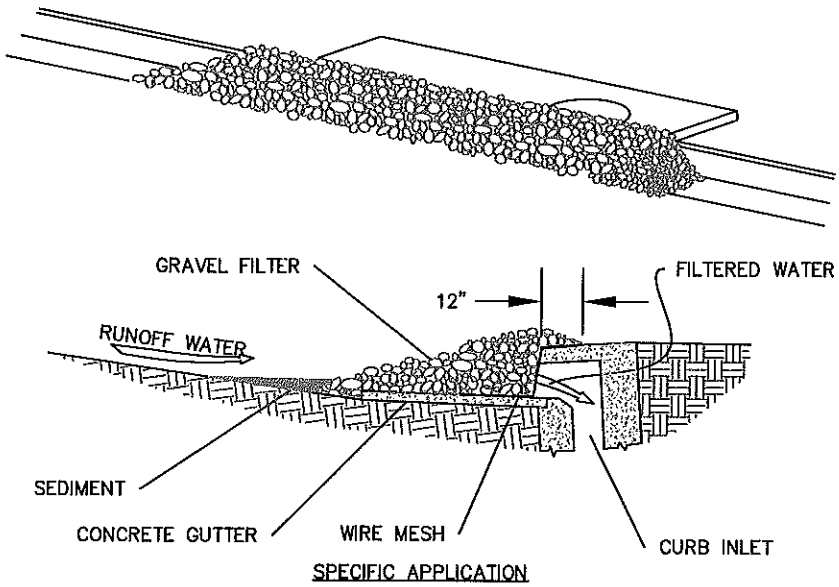




SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

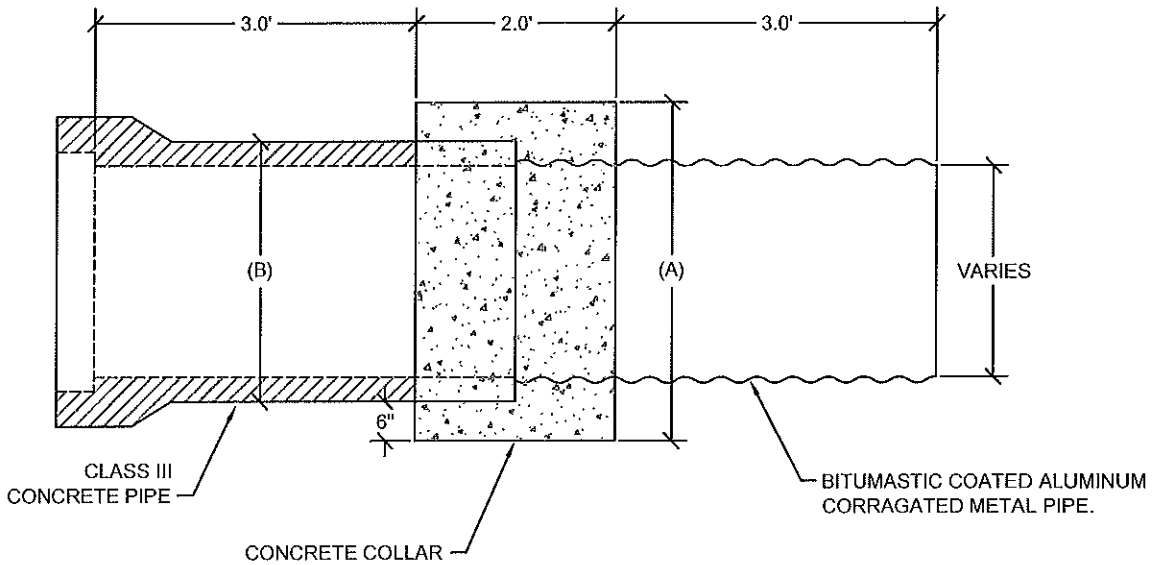
GRAVEL CURB INLET SEDIMENT FILTER

CURB INLET SEDIMENT FILTER DETAIL

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

DRAWING No. SW-14



NOTES:

1. CONCRETE COLLAR SHALL BE 4000 PSI CONCRETE (F'c= 4,000 P.S.I.)
2. CONCRETE COLLAR REINFORCEMENT SHALL BE SAME AS CLASS III CONCRETE PIPE PER ASTM C76 LATEST ADDITION.
3. CONCRETE COLAR DIAMETER (A) SHALL BE EQUAL TO LARGEST PIPE O.D. (B) PLUS 12 INCHES.
4. ALUMINUM CORRAGATED PIPE SHALL HAVE ANNULAR CORRAGATIONS FOR O-RING GASKET JOINTS.
5. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.

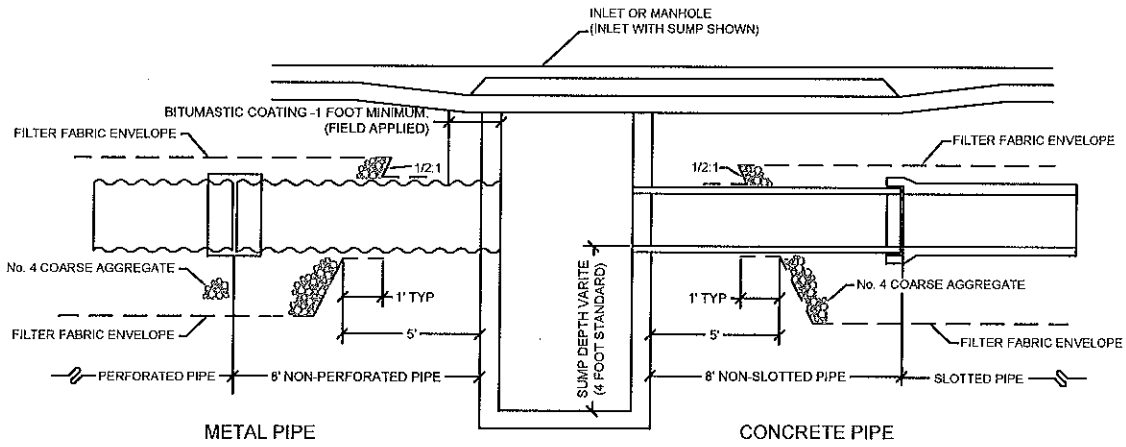
NOT TO SCALE

CONCRETE TO METAL PIPE ADAPTER

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 10/2013

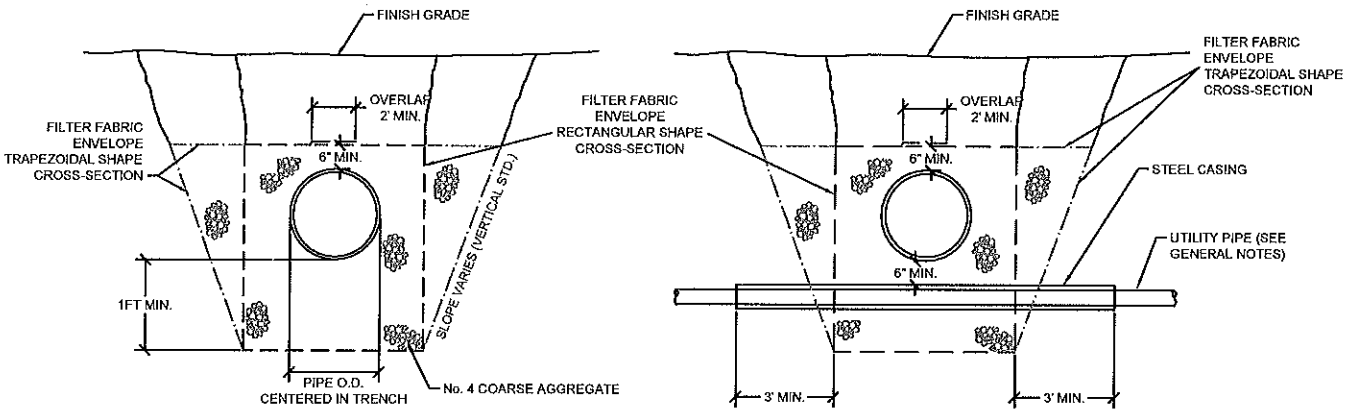
DRAWING No. SW-15



METAL PIPE

CONCRETE PIPE

LONGITUDINAL SECTION



ROUND PIPE SHOWN
STANDARD CROSS SECTION
(NOT TO SCALE)

ROUND PIPE SHOWN
UTILITY PIPE THROUGH EXFILTATION
TRENCH

EXFILTATION TRENCH SYSTEM

GENERAL NOTES:

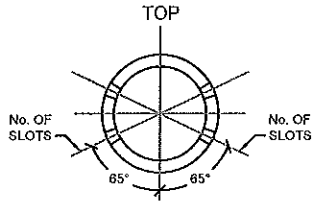
1. EXFILTRATION PIPE SHALL BE OF THE TYPE PERMITTED IN FDOT SECTION 443, UNLESS NOTED OTHERWISE. DISSIMLAR TYPES OF PIPE WILL NOT BE PERMITTED IN A CONTINUOUS RUN OF PIPE.
2. CONCRETE PIPE SHALL BE PLACED WITH SLOTS POSITIONED ON SIDES.
3. ALIGNMENT JOINTS ARE STANDARD (GASKETS NOT REQUIRED). RECORREGATION OF METAL PIPE IS NOT REQUIRED.
4. THE CONTRACTOR MAY SUBMIT OTHER METHODS OF PROVIDING SLOTS HAVING EQUAL OR GREATER AREA OF OPENING TO THE TOWN OF JUPITER FOR APPROVAL.
5. FILTER FABRIC SHALL BE SUBSURFACE DRAINAGE TYPE PER FDOT SECTION 985. ALL FILTER FABRIC JOINTS SHALL LAP A MINIMUM OF 2 FEET.
6. EXFILTRATION TRENCHES WITH MINOR DIMENSIONAL CHANGES OR OTHERWISE DIFFERENT FROM THE STANDARD CROSS-SECTION SHALL BE EITHER DESCRIBED OR DETAILED IN THE PLANS. THOSE WITH SIGNIFICANTLY DIFFERENT CROSS-SECTIONS SHALL BE DETAILED IN THE PLANS.
7. CONTRACTOR SHALL MAKE NECESSARY PRECAUTIONS TO PREVENT CONTAMINATION OF THE TRENCH WITH SAND, SILT AND FOREIGN MATERIALS.
8. NO WEEP HOLES SHALL BE PERMITTED IN STRUCTURES.
9. FOR SUPPLIMENTAL DETAILS, REFER TO FDOT INDEX NUMBER 280.
10. EXFILTRATION TRENCH USED FOR DRY RETENTION / DETENTION SHALL HAVE THE PIPE INVERT AT OR ABOVE THE WATER TABLE WHEN POSSIBLE.
11. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.

EXFILTRATION TRENCH (1 OF 2)

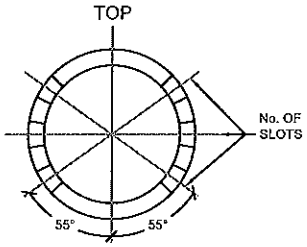
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 01/2014

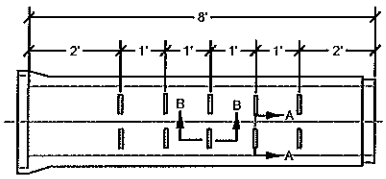
DRAWING No. SW-16



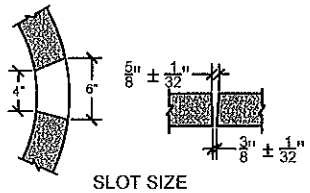
15" TO 30" DIAMETER



36" TO 72" DIAMETER



SIDE VIEW



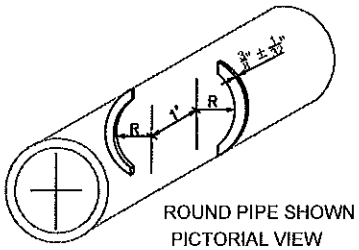
SECTION A-A SECTION B-B

SLOT SIZE

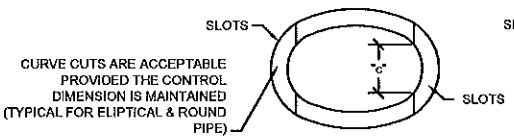
OPTION A - ROUND PIPE

ELLIPTICAL PIPE		
Pipe Size	Slot Cut Opening c	
	Min.	Max.
14"x23"	10"	12"
19"x30"	14"	16"
24"x38"	14"	16"
29"x45"	20"	22"
34"x53"	20"	22"
38"x60"	20"	22"

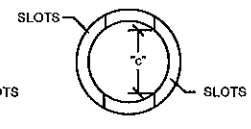
ROUND PIPE		
Pipe Size	Slot Cut Opening c	
	Min.	Max.
15"	12"	14"
18"	12"	14"
24"	16"	18"
30"	16"	18"
36"	22"	24"
42"	22"	24"
48"	22"	24"
54"	24"	26"
60"	24"	26"
66"	24"	26"
72"	24"	26"



ROUND PIPE SHOWN
PICTORIAL VIEW

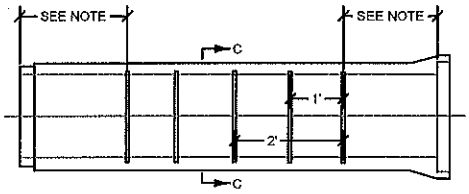


ELIPTICAL PIPE



ROUND PIPE

SECTION C-C



SIDE VIEW

OPTION B - ROUND OR ELLIPTICAL PIPE

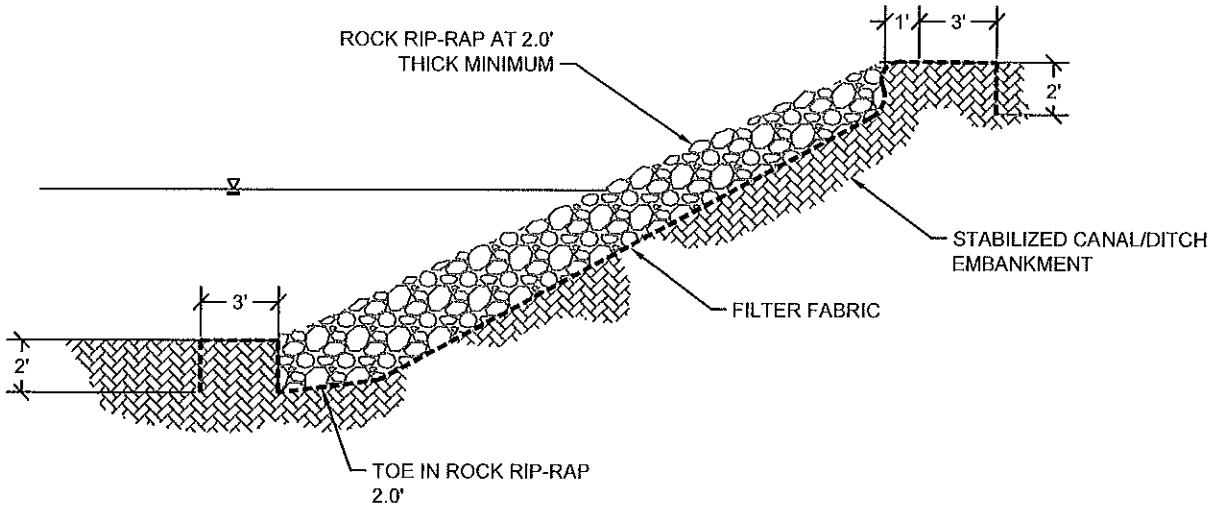
SLOTTED PIPE OPTIONS

EXFILTRATION TRENCH (2 OF 2)

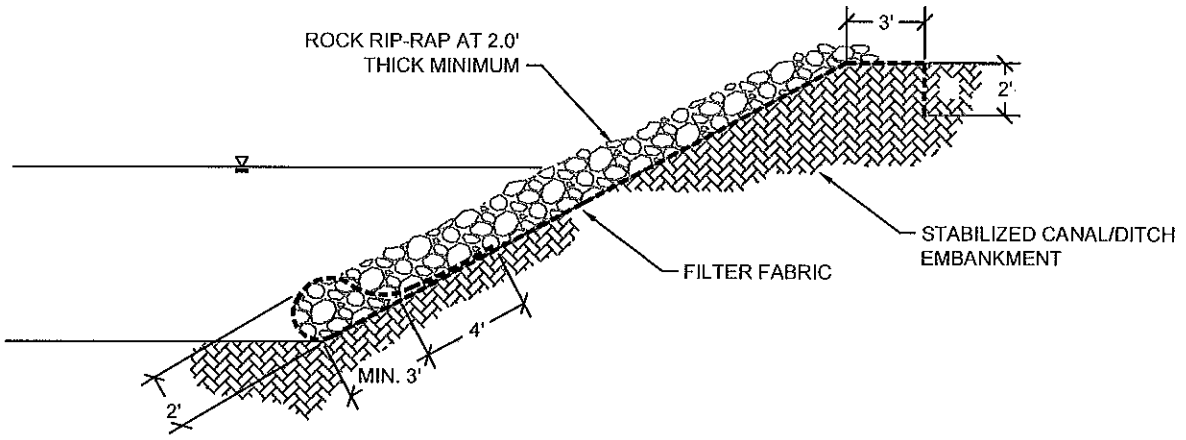
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 12/2008

DRAWING No. SW-17



STANDARD METHOD



ALTERNATE METHOD

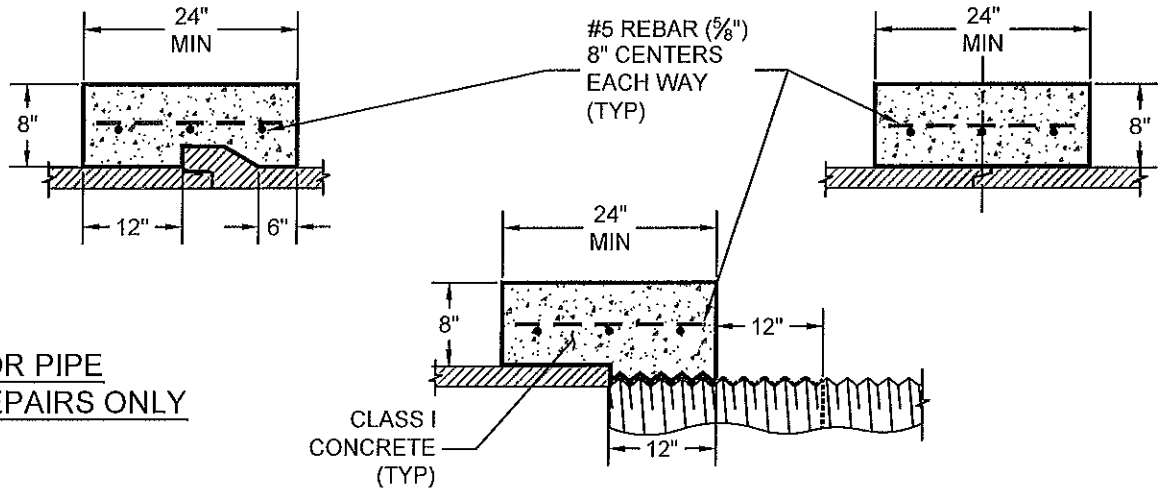
NOT TO SCALE

BANK STABILIZATION/ROCK (ARMOR) UNDERLAYMENT

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

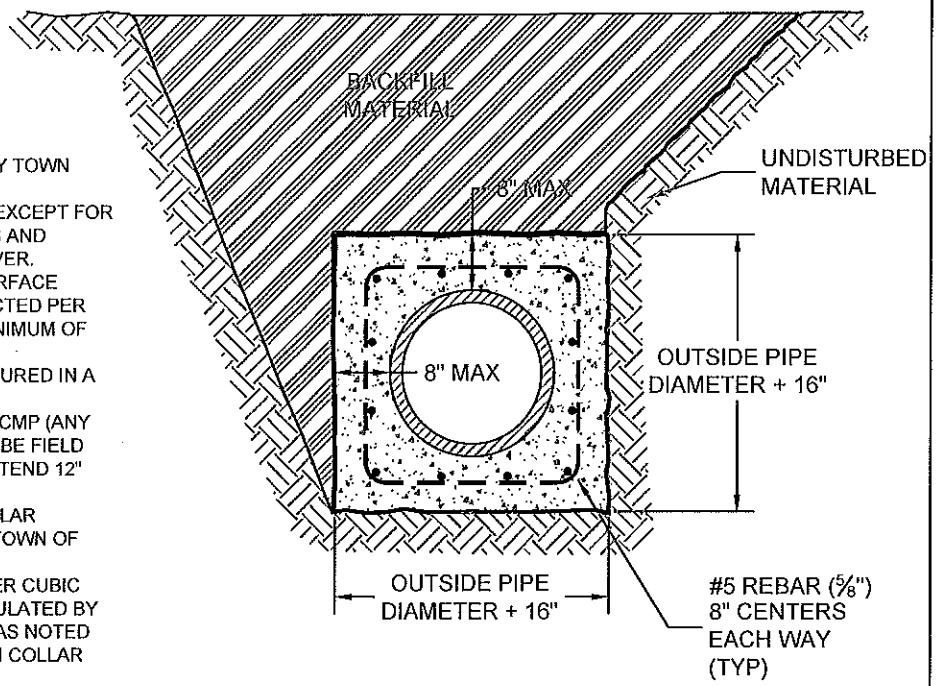
DATE APPROVED: 12/2008

DRAWING No. SW-18



FOR PIPE REPAIRS ONLY

CONCRETE COLLAR SECTIONS



TYPICAL PIPE SECTION

NOTE:

1. REPAIRS TO BE APPROVED FOR USE BY TOWN ONLY
2. THIS DETAIL COVERS ALL PIPE TYPES EXCEPT FOR METAL PIPE OF DISSIMILAR MATERIALS AND FLEXIBLE PIPE WITH THE MINIMUM COVER.
3. BACKFILL (6" MAX. SIZE), BASE AND SURFACE MATERIAL TO BE PLACED AND COMPACTED PER APPROPRIATE SPECIFICATIONS OR MINIMUM OF 95% PER AASHTO T-180.
4. CONCRETE SHALL BE FORMED AND POURED IN A DRY TRENCH.
5. BITUMINOUS COATING REQUIRED FOR CMP (ANY SUITABLE BITUMINOUS MATERIAL MAY BE FIELD APPLIED) BITUMINOUS COATING TO EXTEND 12" BEYOND CONCRETE COLLAR.
6. ALTERNATE CONNECTION AND/OR COLLAR DETAILS MUST BE APPROVED BY THE TOWN OF JUPITER PRIOR TO INSTALLATION.
7. CONCRETE COLLAR COST SHALL BE PER CUBIC YARD OF CLASS I CONCRETE AS CALCULATED BY USING THE THEORETICAL NEAT LINES AS NOTED ON THIS DETAIL AND AN AGREED UPON COLLAR LENGTH (MIN 2 FT.).
8. PER CUBIC YARD COST SHALL INCLUDE SPECIFIED STEEL AND BACKFILL COMPACTION.
9. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.

NOT TO SCALE

CONCRETE COLLARS FOR STORMWATER PIPE REPAIRS

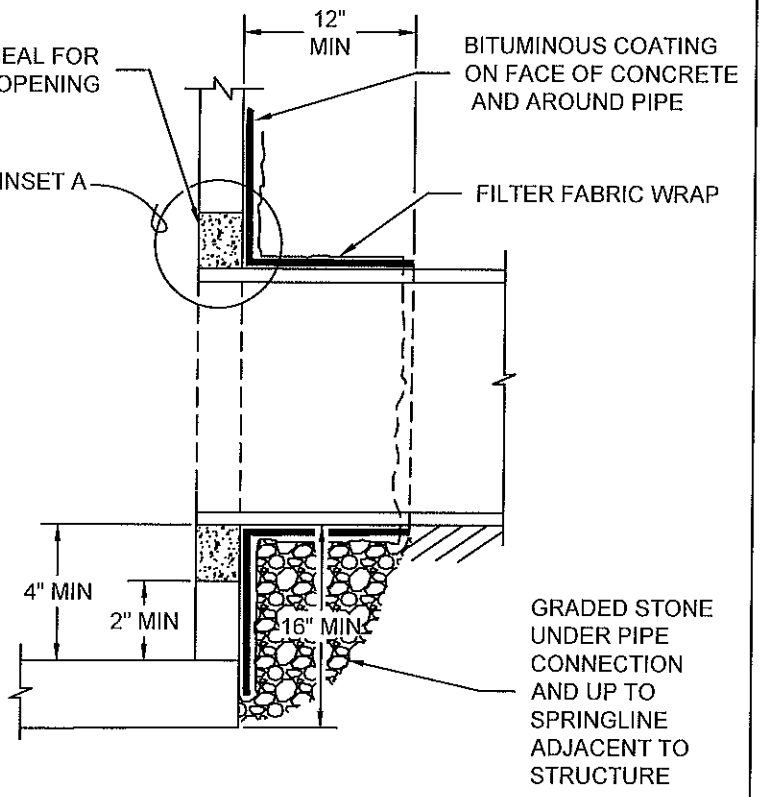
JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 10/2013
DRAWING No. SW-19

THIS DETAIL COVERS ALL PIPE CONNECTIONS TO STRUCTURES.

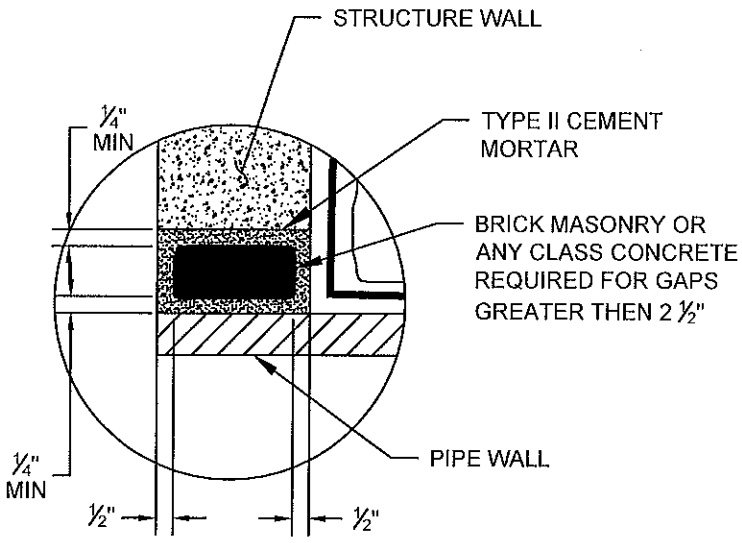
NEW PIPE CONNECTION NOTES:

1. CONNECTION SHALL BE MADE IN A DRY TRENCH.
2. EXISTING STRUCTURES SHALL BE CORED FOR NEW PIPE CONNECTIONS.
3. PIPE BEDDING AT CONNECTION TO BE ¼" TO ¾" GRADED STONE (100% PASSING 1" SIEVE).
4. BACKFILL (6" MAX. SIZE) MATERIAL TO BE PLACED AND COMPACTED PER APPROPRIATE SPEC'S DEPENDING ON THE SURFACE IMPROVEMENTS OR A MINIMUM OF 95% PER AASHTO T-180.
5. BITUMINOUS COATING REQUIRED (ANY SUITABLE BITUMINOUS MATERIAL MAY BE FIELD APPLIED) BITUMINOUS COATING TO EXTEND 2" BEYOND FILTER FABRIC.
6. ALTERNATE CONNECTION AND/OR MODIFICATION TO THIS DETAIL MUST BE APPROVED BY THE TOWN OF JUPITER PRIOR TO INSTALLATION.
7. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.



EXISTING PIPE CONNECTION REPAIR NOTES:

1. CONNECTION REPAIR SHALL BE MADE IN A DRY TRENCH.
2. REPAIR BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURE PENETRATIONS.
3. CHIP AWAY ANY LOOSE MATERIAL.
4. SAWCUT OR CUT BACK THE EXTREMITIES OF THE REPAIR LOCATION TO A DEPTH OF ½" TO AVOID FEATHER EDGING.
5. MINIMUM MUD THICKNESS FOR REPAIR IS ½".
6. WHERE BREAKING OUT IS NOT REQUIRED, ROUGHEN THE SURFACE AND REMOVE ANY LAITANCE BY LIGHT SCABBING OR ABRASIVE BLASTING.
7. CLEAN SURFACE TO REMOVE ANY DUST, UNSOUND OR CONTAMINATED MATERIAL, PLASTER, PAINT, OIL, GREASE, CORROSION DEPOSITS OR ALGAE.
8. APPLY THOROC LA40 OR APPROVED EQUAL IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
9. ALTERNATE CONNECTION AND/OR MODIFICATION TO THIS DETAIL MUST BE APPROVED BY THE TOWN OF JUPITER PRIOR TO INSTALLATION.
10. ITEMS 3 THROUGH 6 UNDER NEW PIPE CONNECTION NOTES ABOVE APPLY TO REPAIR ON OUTSIDE OF STRUCTURE.
11. INSTALLATION OF ALL PIPE AND STRUCTURES MUST MEET THE BEDDING, INSTALLATION AND BACKFILL REQUIREMENTS FOR NEW STRUCTURES AND PIPE ON DETAIL SW-5.



INSET A

NOT TO SCALE

PIPE TO STRUCTURE CONNECTION

JUPITER UTILITIES
CONSTRUCTION STANDARDS AND DETAILS

DATE APPROVED: 10/2013
DRAWING No. SW-20

JOHNINC-02 PANDREE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 7/6/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Johnson Insurance Racine 1103 Hunter Dr Ste 100 Mount Pleasant, WI 53406	CONTACT NAME: Amanda Johnson PHONE (A/C, No, Ext): (920) 445-7401 FAX (A/C, No): (877) 254-8586 E-MAIL ADDRESS: ajohnson@johnsonfinancialgroup.com
	INSURER(S) AFFORDING COVERAGE — NAIC #
	INSURER A : National Fire Insurance Company of Hartford — 20478
INSURED Johnson-Davis, Inc. 604 Hillbrath Drive Lantana, FL 33462	INSURER B : Continental Casualty Company — 20443
	INSURER C : Continental Insurance Company — 35289
	INSURER D : Valley Forge Insurance Company — 20508
	INSURER E : Homeland Insurance Co of NY — 34452
	INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	[ ] CLAIMS-MADE [X] OCCUR	X		6080884045	7/1/2020	7/1/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 300,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	[ ] OTHER:						EBL AGGREGATE	$ 2,000,000
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO			6080884059	7/1/2020	7/1/2021	BODILY INJURY (Per person)	$
	[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
C	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$ 5,000,000
	[ ] EXCESS LIAB [ ] CLAIMS-MADE			6080884076	7/1/2020	7/1/2021	AGGREGATE	$ 5,000,000
	[ ] DED X RETENTION $ 0							$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						X PER STATUTE [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH)	N/A		6080884062	7/1/2020	7/1/2021	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
C	Equipment Floater			6081007778	7/1/2020	7/1/2021	Leased Rented	300,000
E	Pollution			7930030920005	7/1/2020	7/1/2021	Occ/Aggregate	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Re: Present and Future Projects
Town of Jupiter is additional insured with respect to General Liability.

CERTIFICATE HOLDER

Town of Jupiter
210 Military Trail
Jupiter, FL 33458

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Ruth Voendel

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CNA	CNA PARAMOUNT Contractors' General Liability Extension Endorsement

It is understood and agreed that this endorsement amends the **COMMERCIAL GENERAL LIABILITY COVERAGE PART** as follows. If any other endorsement attached to this policy amends any provision also amended by this endorsement, then that other endorsement controls with respect to such provision, and the changes made by this endorsement with respect to such provision do not apply.

TABLE OF CONTENTS
1. Additional Insureds
2. Additional Insured - Primary And Non-Contributory To Additional Insured's Insurance
3. Bodily Injury – Expanded Definition
4. Broad Knowledge of Occurrence/ Notice of Occurrence
5. Broad Named Insured
6. Broadened Liability Coverage For Damage To Your Product And Your Work
7. Contractual Liability - Railroads
8. Electronic Data Liability
9. Estates, Legal Representatives and Spouses
10. Expected Or Intended Injury – Exception for Reasonable Force
11. General Aggregate Limits of Insurance – Per Project
12. In Rem Actions
13. Incidental Health Care Malpractice Coverage
14. Joint Ventures/Partnership/Limited Liability Companies
15. Legal Liability – Damage To Premises / Alienated Premises / Property In The Named Insured's Care, Custody or Control
16. Liquor Liability
17. Medical Payments
18. Non-owned Aircraft Coverage
19. Non-owned Watercraft
20. Personal And Advertising Injury – Discrimination or Humiliation
21. Personal And Advertising Injury - Contractual Liability
22. Property Damage - Elevators
23. Supplementary Payments
24. Unintentional Failure To Disclose Hazards
25. Waiver of Subrogation – Blanket
26. Wrap-Up Extension: OCIP CCIP, or Consolidated (Wrap-Up) Insurance Programs

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1. ADDITIONAL INSUREDS

a. **WHO IS AN INSURED** is amended to include as an **Insured** any person or organization described in paragraphs **A.** through **H.** below whom a **Named Insured** is required to add as an additional insured on this **Coverage Part** under a written contract or written agreement, provided such contract or agreement:

(1) is currently in effect or becomes effective during the term of this **Coverage Part**; and

(2) was executed prior to:

(a) the **bodily injury** or **property damage**; or

(b) the offense that caused the **personal and advertising injury**,

for which such additional insured seeks coverage.

b. However, subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

(1) a higher limit of insurance than required by such contract or agreement; or

(2) coverage broader than required by such contract or agreement, and in no event broader than that described by the applicable paragraph **A.** through **H.** below.

Any coverage granted by this endorsement shall apply only to the extent permissible by law.

A. Controlling Interest

Any person or organization with a controlling interest in a **Named Insured**, but only with respect to such person or organization's liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of:

1. such person or organization's financial control of a **Named Insured**; or

2. premises such person or organization owns, maintains or controls while a **Named Insured** leases or occupies such premises;

provided that the coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

B. Co-owner of Insured Premises

A co-owner of a premises co-owned by a **Named Insured** and covered under this insurance but only with respect to such co-owner's liability for **bodily injury**, **property damage** or **personal and advertising injury** as co-owner of such premises.

C. Lessor of Equipment

Any person or organization from whom a **Named Insured** leases equipment, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused, in whole or in part, by the **Named Insured's** maintenance, operation or use of such equipment, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease.

D. Lessor of Land

Any person or organization from whom a **Named Insured** leases land but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of the ownership, maintenance or use of such land, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease. The

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coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

E. Lessor of Premises

An owner or lessor of premises leased to the **Named Insured**, or such owner or lessor's real estate manager, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of the ownership, maintenance or use of such part of the premises leased to the **Named Insured**, and provided that the **occurrence** giving rise to such **bodily injury** or **property damage**, or the offense giving rise to such **personal and advertising injury**, takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

F. Mortgagee, Assignee or Receiver

A mortgagee, assignee or receiver of premises but only with respect to such mortgagee, assignee or receiver's liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of the **Named Insured's** ownership, maintenance, or use of a premises by a **Named Insured**.

The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

G. State or Governmental Agency or Subdivision or Political Subdivisions – Permits

A state or governmental agency or subdivision or political subdivision that has issued a permit or authorization but only with respect to such state or governmental agency or subdivision or political subdivision's liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of:

1. the following hazards in connection with premises a **Named Insured** owns, rents, or controls and to which this insurance applies:

   a. the existence, maintenance, repair, construction, erection, or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoistaway openings, sidewalk vaults, street banners, or decorations and similar exposures; or

   b. the construction, erection, or removal of elevators; or

   c. the ownership, maintenance or use of any elevators covered by this insurance; or

2. the permitted or authorized operations performed by a **Named Insured** or on a **Named Insured's** behalf.

   The coverage granted by this paragraph does not apply to:

   a. **Bodily injury**, **property damage** or **personal and advertising injury** arising out of operations performed for the state or governmental agency or subdivision or political subdivision; or

   b. **Bodily injury** or **property damage** included within the **products-completed operations hazard**.

With respect to this provision's requirement that additional insured status must be requested under a written contract or agreement, the Insurer will treat as a written contract any governmental permit that requires the **Named Insured** to add the governmental entity as an additional insured.

H. Trade Show Event Lessor

1. With respect to a **Named Insured's** participation in a trade show event as an exhibitor, presenter or displayer, any person or organization whom the **Named Insured** is required to include as an additional insured, but only with respect to such person or organization's liability for **bodily injury**, **property damage** or **personal and advertising injury** caused by:

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a. the **Named Insured's** acts or omissions; or

b. the acts or omissions of those acting on the **Named Insured's** behalf,

in the performance of the **Named Insured's** ongoing operations at the trade show event premises during the trade show event.

2. The coverage granted by this paragraph does not apply to **bodily injury** or **property damage** included within the **products-completed operations hazard.**

2. ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY TO ADDITIONAL INSURED'S INSURANCE

The **Other Insurance** Condition in the **COMMERCIAL GENERAL LIABILITY CONDITIONS** Section is amended to add the following paragraph:

If the **Named Insured** has agreed in writing in a contract or agreement that this insurance is primary and non-contributory relative to an additional insured's own insurance, then this insurance is primary, and the Insurer will not seek contribution from that other insurance. For the purpose of this Provision **2.**, the additional insured's own insurance means insurance on which the additional insured is a named insured. Otherwise, and notwithstanding anything to the contrary elsewhere in this Condition, the insurance provided to such person or organization is excess of any other insurance available to such person or organization.

3. BODILY INJURY – EXPANDED DEFINITION

Under **DEFINITIONS**, the definition of **bodily injury** is deleted and replaced by the following:

Bodily injury means physical injury, sickness or disease sustained by a person, including death, humiliation, shock, mental anguish or mental injury sustained by that person at any time which results as a consequence of the physical injury, sickness or disease.

4. BROAD KNOWLEDGE OF OCCURRENCE/ NOTICE OF OCCURRENCE

Under **CONDITIONS**, the condition entitled **Duties in The Event of Occurrence, Offense, Claim or Suit** is amended to add the following provisions:

A. BROAD KNOWLEDGE OF OCCURRENCE

The **Named Insured** must give the Insurer or the Insurer's authorized representative notice of an **occurrence**, offense or **claim** only when the **occurrence**, offense or **claim** is known to a natural person **Named Insured**, to a partner, executive officer, manager or member of a **Named Insured**, or an **employee** designated by any of the above to give such notice.

B. NOTICE OF OCCURRENCE

The **Named Insured's** rights under this **Coverage Part** will not be prejudiced if the **Named Insured** fails to give the Insurer notice of an **occurrence**, offense or **claim** and that failure is solely due to the **Named Insured's** reasonable belief that the **bodily injury** or **property damage** is not covered under this **Coverage Part**. However, the **Named Insured** shall give written notice of such **occurrence**, offense or **claim** to the Insurer as soon as the **Named Insured** is aware that this insurance may apply to such **occurrence**, offense or **claim**.

5. BROAD NAMED INSURED

WHO IS AN INSURED is amended to delete its Paragraph **3.** in its entirety and replace it with the following:

3. Pursuant to the limitations described in Paragraph **4.** below, any organization in which a **Named Insured** has management control:

a. on the effective date of this **Coverage Part**; or

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b. by reason of a **Named Insured** creating or acquiring the organization during the **policy period**,

qualifies as a **Named Insured**, provided that there is no other similar liability insurance, whether primary, contributory, excess, contingent or otherwise, which provides coverage to such organization, or which would have provided coverage but for the exhaustion of its limit, and without regard to whether its coverage is broader or narrower than that provided by this insurance.

But this **BROAD NAMED INSURED** provision does not apply to:

(a) any partnership, limited liability company or joint venture; or

(b) any organization for which coverage is excluded by another endorsement attached to this **Coverage Part**.

For the purpose of this provision, management control means:

A. owning interests representing more than 50% of the voting, appointment or designation power for the selection of a majority of the Board of Directors of a corporation; or

B. having the right, pursuant to a written trust agreement, to protect, control the use of, encumber or transfer or sell property held by a trust.

4. With respect to organizations which qualify as **Named Insureds** by virtue of Paragraph **3.** above, this insurance does not apply to:

a. **bodily injury** or **property damage** that first occurred prior to the date of management control, or that first occurs after management control ceases; nor

b. **personal or advertising injury** caused by an offense that first occurred prior to the date of management control or that first occurs after management control ceases.

5. The insurance provided by this **Coverage Part** applies to **Named Insureds** when trading under their own names or under such other trading names or doing-business-as names (dba) as any **Named Insured** should choose to employ.

6. BROADENED LIABILITY COVERAGE FOR DAMAGE TO YOUR PRODUCT AND YOUR WORK

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusions **k.** and **l.** and replace them with the following:

This insurance does not apply to:

k. Damage to Your Product

Property damage to **your product** arising out of it, or any part of it except when caused by or resulting from:

(1) fire;

(2) smoke;

(3) collapse; or

(4) explosion.

l. Damage to Your Work

Property damage to **your work** arising out of it, or any part of it and included in the **products-completed operations hazard**.

This exclusion does not apply:

(1) If the damaged work, or the work out of which the damage arises, was performed on the **Named Insured's** behalf by a subcontractor; or

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(2) If the cause of loss to the damaged work arises as a result of:

(a) fire;

(b) smoke;

(c) collapse; or

(d) explosion.

B. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, $100,000 is the most the Insurer will pay under **Coverage A** for the sum of **damages** arising out of any one **occurrence** because of **property damage** to **your product** and **your work** that is caused by fire, smoke, collapse or explosion and is included within the **product-completed operations hazard**. This sublimit does not apply to **property damage** to **your work** if the damaged work, or the work out of which the damage arises, was performed on the **Named Insured's** behalf by a subcontractor.

C. This **Broadened Liability Coverage For Damage To Your Product And Your Work** Provision does not apply if an endorsement of the same name is attached to this policy.

7. CONTRACTUAL LIABILITY – RAILROADS

With respect to operations performed within 50 feet of railroad property, the definition of **insured contract** is replaced by the following:

Insured Contract means:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner is not an **insured contract**;

b. A sidetrack agreement;

c. Any easement or license agreement;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

e. An elevator maintenance agreement;

f. That part of any other contract or agreement pertaining to the **Named Insured's** business (including an indemnification of a municipality in connection with work performed for a municipality) under which the **Named Insured** assumes the tort liability of another party to pay for **bodily injury** or **property damage** to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph **f.** does not include that part of any contract or agreement:

(1) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

(a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;

(2) Under which the **Insured**, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in **(1)** above and supervisory, inspection, architectural or engineering activities.

8. ELECTRONIC DATA LIABILITY

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A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusion **p. Electronic Data** and replace it with the following:

This insurance does not apply to:

p. Access Or Disclosure Of Confidential Or Personal Information And Data-related Liability

Damages arising out of:

(1) any access to or disclosure of any person's or organization's confidential or personal information, including patents, trade secrets, processing methods, customer lists, financial information, credit card information, health information or any other type of nonpublic information; or

(2) the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate **electronic data** that does not result from physical injury to tangible property.

However, unless Paragraph **(1)** above applies, this exclusion does not apply to **damages** because of **bodily injury**.

This exclusion applies even if damages are claimed for notification costs, credit monitoring expenses, forensic expenses, public relation expenses or any other loss, cost or expense incurred by the **Named Insured** or others arising out of that which is described in Paragraph **(1)** or **(2)** above.

B. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, $100,000 is the most the Insurer will pay under **Coverage A** for all **damages** arising out of any one **occurrence** because of **property damage** that results from physical injury to tangible property and arises out of **electronic data.**

C. The following definition is added to **DEFINITIONS**:

Electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software (including systems and applications software), hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

D. For the purpose of the coverage provided by this **ELECTRONIC DATA LIABILITY** Provision, the definition of **property damage** in **DEFINITIONS** is replaced by the following:

Property damage means:

a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it;

b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the **occurrence** that caused it; or

c. Loss of, loss of use of, damage to, corruption of, inability to access, or inability to properly manipulate **electronic data**, resulting from physical injury to tangible property. All such loss of **electronic data** shall be deemed to occur at the time of the **occurrence** that caused it.

For the purposes of this insurance, **electronic data** is not tangible property.

E. If Electronic Data Liability is provided at a higher limit by another endorsement attached to this policy, then the $100,000 limit provided by this **ELECTRONIC DATA LIABILITY** Provision is part of, and not in addition to, that higher limit.

9. ESTATES, LEGAL REPRESENTATIVES, AND SPOUSES

The estates, heirs, legal representatives and **spouses** of any natural person **Insured** shall also be insured under this policy; provided, however, coverage is afforded to such estates, heirs, legal representatives, and **spouses** only for

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claims arising solely out of their capacity or status as such and, in the case of a **spouse**, where such **claim** seeks **damages** from marital community property, jointly held property or property transferred from such natural person **Insured** to such **spouse**. No coverage is provided for any act, error or omission of an estate, heir, legal representative, or **spouse** outside the scope of such person's capacity or status as such, provided however that the **spouse** of a natural person **Named Insured** and the **spouses** of members or partners of joint venture or partnership **Named Insureds** are **Insureds** with respect to such **spouses'** acts, errors or omissions in the conduct of the **Named Insured's** business.

10. EXPECTED OR INTENDED INJURY – EXCEPTION FOR REASONABLE FORCE

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Expected or Intended Injury** and replace it with the following:

This insurance does not apply to:

Expected or Intended Injury

Bodily injury or **property damage** expected or intended from the standpoint of the **Insured**. This exclusion does not apply to **bodily injury** or **property damage** resulting from the use of reasonable force to protect persons or property.

11. GENERAL AGGREGATE LIMITS OF INSURANCE - PER PROJECT

A. For each construction project away from premises the **Named Insured** owns or rents, a separate Construction Project General Aggregate Limit, equal to the amount of the General Aggregate Limit shown in the Declarations, is the most the Insurer will pay for the sum of:

1. All **damages** under **Coverage A**, except **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard**; and
2. All medical expenses under **Coverage C**,

that arise from **occurrences** or accidents which can be attributed solely to ongoing operations at that construction project. Such payments shall not reduce the General Aggregate Limit shown in the Declarations, nor the Construction Project General Aggregate Limit of any other construction project.

B. All:

1. **Damages** under **Coverage B**, regardless of the number of locations or construction projects involved;
2. **Damages** under **Coverage A**, caused by **occurrences** which cannot be attributed solely to ongoing operations at a single construction project, except **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard**; and
3. Medical expenses under **Coverage C** caused by accidents which cannot be attributed solely to ongoing operations at a single construction project,

will reduce the General Aggregate Limit shown in the Declarations.

C. The limits shown in the Declarations for Each Occurrence, for Damage To Premises Rented To You and for Medical Expense continue to apply, but will be subject to either the Construction Project General Aggregate Limit or the General Aggregate Limit shown in the Declarations, depending on whether the **occurrence** can be attributed solely to ongoing operations at a particular construction project.

D. When coverage for liability arising out of the **products-completed operations hazard** is provided, any payments for **damages** because of **bodily injury** or **property damage** included in the **products-completed operations hazard** will reduce the Products-Completed Operations Aggregate Limit shown in the Declarations, regardless of the number of projects involved.

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E. If a single construction project away from premises owned by or rented to the **Insured** has been abandoned and then restarted, or if the authorized contracting parties deviate from plans, blueprints, designs, specifications or timetables, the project will still be deemed to be the same construction project.

F. The provisions of **LIMITS OF INSURANCE** not otherwise modified by this endorsement shall continue to apply as stipulated.

12. IN REM ACTIONS

A quasi in rem action against any vessel owned or operated by or for the **Named Insured**, or chartered by or for the **Named Insured**, will be treated in the same manner as though the action were in personam against the **Named Insured**.

13. INCIDENTAL HEALTH CARE MALPRACTICE COVERAGE

Solely with respect to **bodily injury** that arises out of a **health care incident**:

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Insuring Agreement** is amended to replace Paragraphs **1.b.(1)** and **1.b.(2)** with the following:

b. This insurance applies to **bodily injury** provided that the professional health care services are incidental to the **Named Insured's** primary business purpose, and only if:

(1) such **bodily injury** is caused by an **occurrence** that takes place in the **coverage territory**.

(2) the **bodily injury** first occurs during the **policy period**. All **bodily injury** arising from an **occurrence** will be deemed to have occurred at the time of the first act, error, or omission that is part of the **occurrence**; and

B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to:

i. add the following to the **Employers Liability** exclusion:

This exclusion applies only if the **bodily injury** arising from a **health care incident** is covered by other liability insurance available to the **Insured** (or which would have been available but for exhaustion of its limits).

ii. delete the exclusion entitled **Contractual Liability** and replace it with the following:

This insurance does not apply to:

Contractual Liability

the **Insured's** actual or alleged liability under any oral or written contract or agreement, including but not limited to express warranties or guarantees.

iii. add the following additional exclusions:

This insurance does not apply to:

Discrimination

any actual or alleged discrimination, humiliation or harassment, including but not limited to **claims** based on an individual's race, creed, color, age, gender, national origin, religion, disability, marital status or sexual orientation.

Dishonesty or Crime

Any actual or alleged dishonest, criminal or malicious act, error or omission.

Medicare/Medicaid Fraud

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any actual or alleged violation of law with respect to Medicare, Medicaid, Tricare or any similar federal, state or local governmental program.

Services Excluded by Endorsement

Any **health care incident** for which coverage is excluded by endorsement.

C. DEFINITIONS is amended to:

i. add the following definitions:

Health care incident means an act, error or omission by the **Named Insured's employees** or **volunteer workers** in the rendering of:

a. **professional health care services** on behalf of the **Named Insured** or

b. Good Samaritan services rendered in an emergency and for which no payment is demanded or received.

Professional health care services means any health care services or the related furnishing of food, beverages, medical supplies or appliances by the following providers in their capacity as such but solely to the extent they are duly licensed as required:

a. Physician;

b. Nurse;

c. Nurse practitioner;

d. Emergency medical technician;

e. Paramedic;

f. Dentist;

g. Physical therapist;

h. Psychologist;

i. Speech therapist;

j. Other allied health professional; or

Professional health care services does not include any services rendered in connection with human clinical trials or product testing.

ii. delete the definition of **occurrence** and replace it with the following:

Occurrence means a **health care incident**. All acts, errors or omissions that are logically connected by any common fact, circumstance, situation, transaction, event, advice or decision will be considered to constitute a single **occurrence**;

iii. amend the definition of **Insured** to:

a. add the following:

the **Named Insured's employees** are **Insureds** with respect to:

(1) **bodily injury** to a co-**employee** while in the course of the co-**employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business; and

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(2) **bodily injury** to a **volunteer worker** while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

the **Named Insured's volunteer workers** are **Insureds** with respect to:

(1) **bodily injury** to a co-**volunteer worker** while performing duties related to the conduct of the **Named Insured's** business; and

(2) **bodily injury** to an **employee** while in the course of the **employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

b. delete Subparagraphs **(a), (b), (c) and (d)** of Paragraph **2.a.(1)** of **WHO IS AN INSURED**.

D. The **Other Insurance** condition is amended to delete Paragraph **b.(1)** in its entirety and replace it with the following:

Other Insurance

b. Excess Insurance

(1) To the extent this insurance applies, it is excess over any other insurance, self insurance or risk transfer instrument, whether primary, excess, contingent or on any other basis, except for insurance purchased specifically by the **Named Insured** to be excess of this coverage.

14. JOINT VENTURES / PARTNERSHIP / LIMITED LIABILITY COMPANIES

WHO IS AN INSURED is amended to delete its last paragraph and replace it with the following:

No person or organization is an **Insured** with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a **Named Insured** in the Declarations, except that if the **Named Insured** was a joint venturer, partner, or member of a limited liability company and such joint venture, partnership or limited liability company terminated prior to or during the **policy period**, such **Named Insured** is an **Insured** with respect to its interest in such joint venture, partnership or limited liability company but only to the extent that:

a. any offense giving rise to **personal and advertising injury** occurred prior to such termination date, and the **personal and advertising injury** arising out of such offense first occurred after such termination date;

b. the **bodily injury** or **property damage** first occurred after such termination date; and

c. there is no other valid and collectible insurance purchased specifically to insure the partnership, joint venture or limited liability company; and

If the joint venture, partnership or limited liability company is or was insured under a **consolidated (wrap-up) insurance program**, then such insurance will always be considered valid and collectible for the purpose of paragraph **c.** above. But this provision will not serve to exclude **bodily injury**, **property damage** or **personal and advertising injury** that would otherwise be covered under the **Contractors General Liability Extension Endorsement** provision entitled **WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS**. Please see that provision for the definition of **consolidated (wrap-up) insurance program**.

15. LEGAL LIABILITY – DAMAGE TO PREMISES / ALIENATED PREMISES / PROPERTY IN THE NAMED INSURED'S CARE, CUSTODY OR CONTROL

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete exclusion **j. Damage to Property** in its entirety and replace it with the following:

This insurance does not apply to:

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j. Damage to Property

Property damage to:

(1) Property the **Named Insured** owns, rents, or occupies, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

(2) Premises the **Named Insured** sells, gives away or abandons, if the **property damage** arises out of any part of those premises;

(3) Property loaned to the **Named Insured**;

(4) Personal property in the care, custody or control of the **Insured**;

(5) That particular part of real property on which the **Named Insured** or any contractors or subcontractors working directly or indirectly on the **Named Insured's** behalf are performing operations, if the **property damage** arises out of those operations; or

(6) That particular part of any property that must be restored, repaired or replaced because **your work** was incorrectly performed on it.

Paragraphs **(1), (3)** and **(4)** of this exclusion do not apply to **property damage** (other than damage by fire) to premises rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, nor to the contents of premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in **LIMITS OF INSURANCE**.

Paragraph **(2)** of this exclusion does not apply if the premises are **your work.**

Paragraphs **(3), (4), (5)** and **(6)** of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph **(6)** of this exclusion does not apply to **property damage** included in the **products-completed operations hazard.**

Paragraphs **(3)** and **(4)** of this exclusion do not apply to **property damage** to:

i. tools, or equipment the **Named Insured** borrows from others, nor

ii. other personal property of others in the **Named Insured's** care, custody or control while being used in the **Named Insured's** operations away from any **Named Insured's** premises.

However, the coverage granted by this exception to Paragraphs **(3)** and **(4)** does not apply to:

a. property at a job site awaiting or during such property's installation, fabrication, or erection;

b. property that is **mobile equipment** leased by an **Insured**;

c. property that is an **auto**, aircraft or watercraft;

d. property in transit; or

e. any portion of **property damage** for which the **Insured** has available other valid and collectible insurance, or would have such insurance but for exhaustion of its limits, or but for application of one of its exclusions.

A separate limit of insurance and deductible apply to such property of others. See **LIMITS OF INSURANCE** as amended below.

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B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete its last paragraph and replace it with the following:

Exclusions **c.** through **n.** do not apply to damage by fire to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner, nor to damage to the contents of premises rented to a **Named Insured** for a period of 7 or fewer consecutive days.

A separate limit of insurance applies to this coverage as described in **LIMITS OF INSURANCE**.

C. The following paragraph is added to **LIMITS OF INSURANCE**:

Subject to **5.** above, $25,000 is the most the Insurer will pay under **Coverage A** for **damages** arising out of any one **occurrence** because of the sum of all **property damage** to borrowed tools or equipment, and to other personal property of others in the **Named Insured's** care, custody or control, while being used in the **Named Insured's** operations away from any **Named Insured's** premises. The Insurer's obligation to pay such **property damage** does not apply until the amount of such **property damage** exceeds $1,000. The Insurer has the right but not the duty to pay any portion of this $1,000 in order to effect settlement. If the Insurer exercises that right, the **Named Insured** will promptly reimburse the Insurer for any such amount.

D. Paragraph **6.**, Damage To Premises Rented To You Limit, of **LIMITS OF INSURANCE** is deleted and replaced by the following:

6. Subject to Paragraph **5.** above, (the Each Occurrence Limit), the Damage To Premises Rented To You Limit is the most the Insurer will pay under **Coverage A** for **damages** because of **property damage** to any one premises while rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, including contents of such premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. The Damage To Premises Rented To You Limit is the greater of:

a. $500,000; or

b. The Damage To Premises Rented To You Limit shown in the Declarations.

E. Paragraph **4.b.(1)(a)(ii)** of the **Other Insurance** Condition is deleted and replaced by the following:

(ii) That is property insurance for premises rented to the **Named Insured**, for premises temporarily occupied by the **Named Insured** with the permission of the owner; or for personal property of others in the **Named Insured's** care, custody or control;

16. LIQUOR LIABILITY

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Liquor Liability**.

This **LIQUOR LIABILITY** provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

17. MEDICAL PAYMENTS

A. LIMITS OF INSURANCE is amended to delete Paragraph **7.** (the Medical Expense Limit) and replace it with the following:

7. Subject to Paragraph **5.** above (the Each Occurrence Limit), the Medical Expense Limit is the most the Insurer will pay under **Coverage C – Medical Payments** for all medical expenses because of **bodily injury** sustained by any one person. The Medical Expense Limit is the greater of:

(1) $15,000 unless a different amount is shown here: $N,NNN,NNN,NNN; or

(2) the amount shown in the Declarations for Medical Expense Limit.

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B. Under **COVERAGES**, the **Insuring Agreement** of **Coverage C – Medical Payments** is amended to replace Paragraph **1.a.(3)(b)** with the following:

(b) The expenses are incurred and reported to the Insurer within three years of the date of the accident; and

18. NON-OWNED AIRCRAFT

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended as follows:

The exclusion entitled **Aircraft, Auto or Watercraft** is amended to add the following:

This exclusion does not apply to an aircraft not owned by any **Named Insured**, provided that:

1. the pilot in command holds a currently effective certificate issued by the duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;

2. the aircraft is rented with a trained, paid crew to the **Named Insured**; and

3. the aircraft is not being used to carry persons or property for a charge.

19. NON-OWNED WATERCRAFT

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete subparagraph **(2)** of the exclusion entitled **Aircraft, Auto or Watercraft**, and replace it with the following.

This exclusion does not apply to:

(2) a watercraft that is not owned by any **Named Insured**, provided the watercraft is:

(a) less than 75 feet long; and

(b) not being used to carry persons or property for a charge.

20. PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION

A. Under **DEFINITIONS**, the definition of **personal and advertising injury** is amended to add the following tort:

Discrimination or humiliation that results in injury to the feelings or reputation of a natural person.

B. Under **COVERAGES, Coverage B – Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to:

1. delete the Exclusion entitled **Knowing Violation Of Rights Of Another** and replace it with the following:

This insurance does not apply to:

Knowing Violation of Rights of Another

Personal and advertising injury caused by or at the direction of the **Insured** with the knowledge that the act would violate the rights of another and would inflict **personal and advertising injury**. This exclusion shall not apply to discrimination or humiliation that results in injury to the feelings or reputation of a natural person, but only if such discrimination or humiliation is not done intentionally by or at the direction of:

(a) the **Named Insured**; or

(b) any **executive officer**, director, stockholder, partner, member or manager (if the **Named Insured** is a limited liability company) of the **Named Insured**.

2. add the following exclusions:

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This insurance does not apply to:

Employment Related Discrimination

Discrimination or humiliation directly or indirectly related to the employment, prospective employment, past employment or termination of employment of any person by any **Insured**.

Premises Related Discrimination

discrimination or humiliation arising out of the sale, rental, lease or sub-lease or prospective sale, rental, lease or sub-lease of any room, dwelling or premises by or at the direction of any **Insured**.

Notwithstanding the above, there is no coverage for fines or penalties levied or imposed by a governmental entity because of discrimination.

The coverage provided by this **PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization whose status as an **Insured** derives solely from

Provision **1. ADDITIONAL INSURED** of this endorsement; or

attachment of an additional insured endorsement to this **Coverage Part**.

This **PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

21. PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY

A. Under **COVERAGES, Coverage B –Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Contractual Liability**.

B. Solely for the purpose of the coverage provided by this **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** provision, the following changes are made to the section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B:**

1. Paragraph **2.d.** is replaced by the following:

d. The allegations in the **suit** and the information the Insurer knows about the offense alleged in such **suit** are such that no conflict appears to exist between the interests of the **Insured** and the interests of the indemnitee;

2. The first unnumbered paragraph beneath Paragraph **2.f.(2)(b)** is deleted and replaced by the following:

So long as the above conditions are met, attorneys fees incurred by the Insurer in the defense of that indemnitee, necessary litigation expenses incurred by the Insurer, and necessary litigation expenses incurred by the indemnitee at the Insurer's request will be paid as **defense costs**. Such payments will not be deemed to be **damages** for **personal and advertising injury** and will not reduce the limits of insurance.

C. This **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** Provision does not apply if **Coverage B –Personal and Advertising Injury Liability** is excluded by another endorsement attached to this **Coverage Part**.

This **PERSONAL AND ADVERTISING INJURY - CONTRACTUAL LIABILITY** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

22. PROPERTY DAMAGE – ELEVATORS

A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended such that the **Damage to Your Product** Exclusion and subparagraphs **(3)**, **(4)** and **(6)** of the **Damage to Property** Exclusion do not apply to **property damage** that results from the use of elevators.

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B. Solely for the purpose of the coverage provided by this **PROPERTY DAMAGE – ELEVATORS** Provision, the **Other Insurance** conditions is amended to add the following paragraph:

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is Property insurance covering property of others damaged from the use of elevators.

23. SUPPLEMENTARY PAYMENTS

The section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B** is amended as follows:

A. Paragraph **1.b.** is amended to delete the $250 limit shown for the cost of bail bonds and replace it with a $5,000. limit; and

B. Paragraph **1.d.** is amended to delete the limit of $250 shown for daily loss of earnings and replace it with a $1,000. limit.

24. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

If the **Named Insured** unintentionally fails to disclose all existing hazards at the inception date of the **Named Insured's Coverage Part**, the Insurer will not deny coverage under this **Coverage Part** because of such failure.

25. WAIVER OF SUBROGATION - BLANKET

Under **CONDITIONS**, the condition entitled **Transfer Of Rights Of Recovery Against Others To Us** is amended to add the following:

The Insurer waives any right of recovery the Insurer may have against any person or organization because of payments the Insurer makes for injury or damage arising out of:

1. the **Named Insured's** ongoing operations; or
2. **your work** included in the **products-completed operations hazard.**

However, this waiver applies only when the **Named Insured** has agreed in writing to waive such rights of recovery in a written contract or written agreement, and only if such contract or agreement:

1. is in effect or becomes effective during the term of this **Coverage Part**; and
2. was executed prior to the **bodily injury**, **property damage** or **personal and advertising injury** giving rise to the **claim.**

26. WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS

Note: The following provision does not apply to any public construction project in the state of Oklahoma, nor to any construction project in the state of Alaska, that is not permitted to be insured under a **consolidated (wrap-up) insurance program** by applicable state statute or regulation.

If the endorsement **EXCLUSION – CONSTRUCTION WRAP-UP** is attached to this policy, or another exclusionary endorsement pertaining to Owner Controlled Insurance Programs (O.C.I.P.) or Contractor Controlled Insurance Programs (C.C.I.P.) is attached, then the following changes apply:

A. The following wording is added to the above-referenced endorsement:

With respect to a **consolidated (wrap-up) insurance program** project in which the **Named Insured** is or was involved, this exclusion does not apply to those sums the **Named Insured** become legally obligated to pay as **damages** because of:

1. **Bodily Injury**, **property damage**, or **personal or advertising injury** that occurs during the **Named Insured's** ongoing operations at the project, or during such operations of anyone acting on the **Named Insured's** behalf; nor

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2. **Bodily injury** or **property damage** included within the **products-completed operations hazard** that arises out of those portions of the project that are not **residential structures**.

B. Condition **4. Other Insurance** is amended to add the following subparagraph **4.b.(1)(c)**:

This insurance is excess over:

(c) Any of the other insurance whether primary, excess, contingent or any other basis that is insurance available to the **Named Insured** as a result of the **Named Insured** being a participant in a **consolidated (wrap-up) insurance program**, but only as respects the **Named Insured's** involvement in that **consolidated (wrap-up) insurance program**.

C. **DEFINITIONS** is amended to add the following definitions:

Consolidated (wrap-up) insurance program means a construction, erection or demolition project for which the prime contractor/project manager or owner of the construction project has secured general liability insurance covering some or all of the contractors or subcontractors involved in the project, such as an Owner Controlled Insurance Program (O.C.I.P.) or Contractor Controlled Insurance Program (C.C.I.P.).

Residential structure means any structure where 30% or more of the square foot area is used or is intended to be used for human residency, including but not limited to:

1. single or multifamily housing, apartments, condominiums, townhouses, co-operatives or planned unit developments; and

2. the common areas and structures appurtenant to the structures in paragraph **1.** (including pools, hot tubs, detached garages, guest houses or any similar structures).

However, when there is no individual ownership of units, **residential structure** does not include military housing, college/university housing or dormitories, long term care facilities, hotels or motels. **Residential structure** also does not include hospitals or prisons.

This **WRAP-UP EXTENSION: OCIP, CCIP, OR CONSOLIDATED (WRAP-UP) INSURANCE PROGRAMS** Provision does not apply to any person or organization who otherwise qualifies as an additional insured on this **Coverage Part**.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.

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