

107-18 Appendix A – Technical Specifications

West Grid- Lenox to Timuquana- 30” Force Main Improvements

The Company will provide all labor and material to replace approx. 13,500 LF of 24" ductile iron sewer force main with 30" PVC force main. Consisting of the following construction methods: approx. 12,900 LF of 30" PVC force main by open cut, 150 LF of 48" diameter steel casing by jack and bore, 450 LF of 30" stainless steel pipe aerial waterway crossing and 240 LF of 36" HDPE open cut subaqueous crossing.

901 BID DRAWINGS

Titled “Construction Drawings for West Grid Lenox to Timuquana Force Main improvements Wilson to Timuquana Segment” by Mott MacDonald, LLC are attached.

902 GEOTECHNICAL REPORT

Titled “Final Report for Geotechnical Exploration for JEA West Grid – Wilson to Timuquana Force Main Segment” prepared by Meskel & Associates Engineering is attached.

903 SUE TEST HOLE REPORTS

Test hole reports 1 through 33 Titled Vacuum Test Hole Reports prepared by DeGrove Surveyors, Inc. are attached.

904 RESPONSIBLE BIDDERS LIST (RBL) GC-11 LOCATE LINE VERIFICATION

Upon request by JEA, Company shall identify which subcontractor on JEA’s RBL GC-11 Locate Line Services Verification listing will be utilized for the installation of locate wire on PVC piping. The Company may obtain a list of prequalified persons and/or companies by contacting the JEA Procurement Bid Section, 21 W. Church Street, Suite 103, Jacksonville, FL 32202, (904) 665-6740, or by fax (904) 665-7294, or online at JEA.com.

905 PIPE UNIT COST

Unit costs for pipes shall include all temporary pavements as necessary to restore the roadway after each working day, until final pavement repair is made.

906 PHASING

Any COJ standard pavement repair shall be completed within 10 calendar days or when 500 LF of roadway is disturbed after completion of the utility installation. All mobilization/demobilization required for rework/regrading of lime rock base, dust control, including asphalt paving shall not be paid for separately but shall be included in the cost of the associated items in the Bid Form.

907 REMOVAL/ABANDONMENT OF UTILITIES UNDER ROADWAYS

Water and sewer utilities to be abandoned under roadways shall be capped and grout filled for the length of the pipe under pavement.

908 REMOVAL/ABANDONMENT OF FORCE MAINS

Company shall refer to the JEA General Conditions for the removal and abandonment of all force mains. Company shall take every precaution to avoid contamination of all water sources adjacent to the scope of this project. The Company shall exercise care to prevent spills onto the ground surface and shall immediately contain and clean up any spills at no extra cost to the Owner. The Company shall properly dispose of all waste and wastewater arising from grouting operations. Under no circumstance is grout to be discharged into water bodies.

909 PERMITS AND PLANS APPROVALS

JEA has obtained the following permits for the project:

- COJ Plan Approval – CDN 4161.251

- FDEP Permit to Construct a Domestic Collection/Transmission System; Permit No. 0013908-400-DWC, issued June 1, 2018.
- FDEP Environmental Resource Permit No. 16-0363281-001-EG, issued April 27, 2018. (Butchers Pen Creek)
- FDEP Environmental Resource Permit No. 16-0363286-001-EG, issued. (Fishing Weir Creek)
- FDOT Utility Accommodation Permit: 2018-H-294-173
- USACE Nationwide Permit Number 12: SAJ-2017-02228(NW-RPR), issued May 25, 2018.

910 PERMIT COORDINATION MEETINGS

Company shall be responsible for being thoroughly familiar with all permit requirements prior to mobilizing and starting work associated with a particular permit. If a permit requires a notification or meeting with the issuing agency prior to starting work, Company shall be responsible for arranging said meeting and informing the JEA Representative. The following shall be attended by, but not limited to, the Company's Project Manager, Company's Site Superintendent, Permitting Agency Representative, JEA Project Manager and JEA Inspector.

911 CONNECTIONS TO EXISTING WATER AND SEWER UTILITIES

Company shall verify size and type of pipe at each connection prior to ordering materials for connections.

912 GRASSING/SODDING

The Company shall replace all sod in-kind. St. Augustine type grass/sod will not be allowed in City of Jacksonville Right-of-Ways.

913 CLEARING AND GRUBBING

Payment for clearing and grubbing shall not be paid for separately, but shall be included in the cost of the associated item of work. Payment will be compensation in full for all clearing and grubbing required for the roadway right-of-way and for any other clearing and grubbing indicated or required for the construction of the entire project area including area of excavated trenches and where trenchless operations are required, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc. as required.

914 SWALE AND DITCH CONSTRUCTION / REGRADING

The Company shall re-grade all existing swales and ditches as necessary to restore the swales and ditches to their original (or better) condition. No separate payment shall be made for re-grading or construction of new drainage ditches as required for restoration, but shall be included in the Bid Document for roadway paving replacement. Payment for sodding of swales and ditches will be separate.

915 DUST CONTROL

The Company shall utilize a water spray truck to mitigate dusty conditions when roadways are unpaved and construction areas are not sodded.

916 EARTHWORK

It shall be the sole responsibility of the Company to evaluate the geotechnical findings and recommendations along with the construction drawings to determine the quantity of soil to be managed or removed/disposed and replaced in order to meet the requirements of the Contract Documents. No separate payment shall be made for stockpiling, managing, mixing, and/or removal, disposal, importation and placement of A-3 sand required for backfill and/or over-excavation (bedding) material for the pipeline(s) and structures, but all costs shall be merged with the associated item of work shown in the Bid Form. Excess and/or unsuitable material shall become the property of the Company and shall be disposed of outside of the right-of-way.

917 TURBIDITY BARRIERS

The Company shall take steps and make suitable provisions to minimize siltation and erosion of waterways that may result from its operation during the course of construction.

The Company shall make suitable arrangements, which may require temporary construction of flumes, boxes, or some other device(s), at the Work Location for the drainage and disposal of water. The Company shall be responsible for protecting adjacent property to the Work Location from damage by water resulting from its operation. The Work Location shall be returned to its original condition to the satisfaction of JEA.

The Company is cautioned that execution or maintenance that creates turbidity and that directly or indirectly affects the water quality of any waterway into which storm water is discharged in such a manner as to exceed the limitations prescribed in the Florida Administrative Code, is a violation of the water quality standards of the State of Florida.

Turbidity levels within the project area (including within 100 ft. of the construction activity) shall not exceed background conditions.

The cost for turbidity barriers and other provisions for erosion control is included in the unit or lump sum price set forth in the contract for the items to which the turbidity barriers and erosion control provisions are incidental and appurtenant.

918 UPDATED SURVEYING

In addition to the Surveying requirements set forth in Section 2.14.20 of this solicitation, the Company shall be responsible for staking the project stationing, easements and/or right-of-way boundaries. The survey datum used for this project is NAVD 1988.

919 FORCE MAIN PROFILE ELEVATIONS

The force main profile shown on the contract drawings indicate the station and elevation for the air release valves (ARV). The ARV must be located at a high point. To ensure this requirement is met, the Company shall take station and elevation readings of top of force main pipe at 100 foot intervals. The data collected shall be taken during the progression of the pipeline installation. Once the stations and elevations are collected, submit to the JEA Representative prior to installing the ARV. The JEA Engineer will review the elevations to determine if the station (location) for the ARV needs to be adjusted from that shown on the force main (FM) profile. If the Company installs the pipeline such that additional high points are created on the pipeline profile beyond that shown on the contract drawings, the company shall be solely responsible for furnishing and installing additional ARV/manholes at each of these high points. Elevations should be referenced to the survey benchmark.

920 EXISTING UTILITIES

Known surface and subsurface utilities are shown or noted on the drawings as accurately available information will permit. The JEA does not guarantee the information shown or noted or that utilities other than those indicated (on the drawings) do not exist. It is the responsibility of the Company to notify each of the utilities at least (15) fifteen working days prior to construction and request that the location of their respective utility or material be located and staked in the field. Should the company encounter unidentified utility, work in the immediate area shall promptly cease and the JEA representative shall be advised. The JEA shall investigate the condition and propose remedial action. The Company is reminded of the laws of Florida requiring notification of Gas Company, at least four (4) working days in advanced of any digging operation. The Company shall call the Sunshine State One Call of Florida (811) to request location of all facilities owned by utilities that participate in the locate program. Failure by the company to contact Sunshine One Call of Florida prior to digging shall obligate the company for damages to participating utility company and associated repair cost.

In order to reduce the disruption and cost of utility damages occurring in the COJ ROW and Easements, the Company shall prevent damages to existing utilities caused by its work through field verification of the location of existing utilities. In the case of open excavation, verification may be performed during the Company's work.

Company shall verify the location of existing utilities as needed to avoid contact. Existing utilities shall be exposed using detection equipment or other acceptable means. Such methods may include but shall not be limited to "soft dig" equipment and ground penetrating radar (GPR). The excavator shall be held liable for damages caused to the city's infrastructure and the existing facilities of other utility companies.

921 UTILITY POLE HOLDING / SUSPENDING

Holding or suspending of utility poles including power poles and telephone poles shall be performed as needed, and when trenching or excavating is within a horizontal distance from the pole that is less than the depth of the trenching or excavation. Work shall include, but not limited to, furnishing of all material, labor, supervision, tools, and equipment as required to hold/suspend utility poles. Company shall review the project and notify the JEA Project Manager of all anticipated holds/suspends within ten (10) days following the notice to proceed. JEA will be responsible for the coordination and provision of utility pole holds/suspends. Notice, giving the exact date and time, for each hold/suspend, shall be provided by the Company in writing to the JEA Project Manager at least two weeks in advance of each hold/suspend. No separate pay item will be made to the Company separately, but shall be included in the cost of the associated items in the Bid.

922 INSTALLATION OF STAINLESS STEEL FORCE MAIN – Butchers Pen Creek Sta. 44+35 to Sta. 46+70

The lump sum to be paid for this Item of Work shall include:

The mobilization, use, and demobilization of all labor, equipment, materials and incidental work for the furnishing, storage, assembly, installation and testing of 30-inch DI pipe spool pieces, fittings and restraints; 30-inch flanged joint type 316 stainless steel Sch. 10 pipe, bends and fittings; 30-inch flanged insulation joint kits; isolation valve and fittings; HP 14 x 84 steel pile installations, cast in place pipe support pile caps; reinforced concrete protective pile sleeves; FDEP/FDOT Type 2 floating turbidity barriers; pre-construction Confederate Point Road bridge capacity analysis, construction support and protection analysis and protection analysis by a Florida licensed Professional Engineer; pile driving impact monitoring in accordance with the specified FDOT Standards; pile driving monitoring and recording required by the contract documents, project geotechnical report and regulatory agencies; soil erosion and sediment control BMPs; maintenance and detour of traffic; removal, disposal and in-kind replacement of the northeast shore brick columns, wall, and foundation; field location and protection of the existing, operational, 24-inch DI force main on the creek bottom; creek bank protection and restabilization; regulatory agency compliance; as well as any work not specifically mentioned above, but required to complete the work.

The Company shall provide pre and post construction bathymetric survey of creek bottom using a Florida Registered Surveyor to confirm creek bottom elevation is to pre-construction elevations.

The Company shall not install the 30" PVC force main piping within 100 linear feet on either side of the Butchers Pen Creek crossing prior to completion of the aerial creek crossing piping.

Limits of Lump Sum item as indicated on bid form shall be STA 44+35 to STA 46+70.

923 Subaqueous 36" HDPE Force Main Crossing- Fishing Creek- Sta. 72+33 to Sta. 76+80

The lump sum to be paid for this Item of Work shall include:

The mobilization, use, and demobilization of all labor, equipment, materials and incidental work for the furnishing, storage, assembly, installation and testing of 30-inch DI pipe spool pieces, fittings and restraints; thermal butt fused 36-inch DR-11, IPS high density polyethylene pipe (HDPEP) and fittings; pre-cast concrete anti-floatation HDPEP collars with type 316 stainless steel hardware, PVC pipe sleeves and non-slip rubber padding; JEA Standard pipeline

tracer wire; FDEP/FDOT Type 2 floating turbidity barriers; soil erosion and sediment control BMPs; notification and protection of marine traffic; removal, disposal and in-kind replacement of the south shore concrete boat ramp; field location and protection of the existing, operational, 24-inch DI force main on the creek bottom; location and protection of the electric powered red warning light and sign post on the south shore; creek bank protection and restabilization; regulatory agency compliance; as well as any work not specifically mentioned above, but required to complete the work.

The Company shall provide pre and post construction bathometric survey of creek bottom using a Florida Registered Surveyor to confirm creek bottom elevation is to pre-construction elevations.

Limits of Lump Sum item as indicated on bid form shall be STA 72+33 to STA 76+80.

924 STAINLESS STEEL ABOVE GRADE ARV ASSEMBLY

The stainless steel above grade ARV assembly located at STA 46+28.6 shall be paid at the lump sum unit price set forth in the Contract Documents.

The stainless steel coupling welded connection to the 30-inch Type 316L stainless steel pipe for the stainless steel ARV above grade shall be factory welded by the stainless steel pipe manufacturer. The cost for the stainless steel coupling welded connection shall be included in the cost of furnishing and installing the 30-inch 316L SST pipe, and shall not be paid for separately.

925 VALVE AND LOCATE WIRE BOX IDENTIFICATION MARKERS

The Company shall furnish and install fiberglass identification markers at all gate valve and locate wire box locations as directed by the JEA Representative. All costs associated with this work shall be included in the associated line item in the Bid Document.

926 WATER SERVICE REPLACEMENT

Long side water services will be located throughout the project limits. The Company shall replace all galvanized long side water services from the water main to the service meter prior to installation of the 30-inch force main as per section 350.III.11 of JEA water and sewer standards.

The Company shall notify the JEA inspector 2 weeks prior to any required water outage. The Company shall notify the residents a minimum of 48 hours prior to the outage event. JEA will provide door hangers for the outage event.

Payment of the replacement of long side water services will be per the unit price established on the bid form.

927 SEWER LATERAL PIPING – REMOVE AND REPLACE

Sewer laterals will be strategically located by The Company soliciting information from property owners and by observation of field conditions or by CCTV. Locations of sewer laterals are generally not depicted on the construction drawings.

Measurement of vitrified clay sewer lateral pipe removal and replacement for payment shall be by the linear foot on a horizontal plane along the projection of the centerline of the lateral pipe for only the minimal removal and replacement of the length lateral pipe dictated by the construction of the proposed water main or proposed force main. Payment of vitrified clay sewer lateral piping removal and replacement will be at the per linear foot price stated in the Contract for the size, class, and type of pipe actually installed. The unit price set forth in the Contract will constitute full compensation for excavation and native soil backfilling; de-watering; sheeting and shoring driven and pulled and drag shields for trenches of all depths; placing and removing all traffic signs and barriers and maintaining traffic; as-builts; as well as furnishing and installing the sewer lateral piping and fittings. Connection of

sewer lateral pipe of different materials shall be with shear-resistant transition repair couplings. The couplings shall connect to the pipe ends with type 316 SS nut and bolt worm gear clamps. The couplings shall be ASTM C1173 & D5926 compliant, and shall be a Series 5000 Repair Coupling as manufactured by Fernco, Inc., or approved equal. The unit price shall also be full compensation for locating existing sewer lateral piping; the removal and disposal of the existing wastewater lateral piping; plus all incidental work including labor, materials, tools, and equipment.

Measurement of PVC sewer lateral pipe removal and replacement for payment shall be by the linear foot on a horizontal plane along the projection of the centerline of the lateral pipe for only the minimal removal and replacement of the length lateral pipe dictated by the construction of the proposed water main or proposed force main. Payment of PVC sewer lateral piping removal and replacement will be at the per linear foot price stated in the Contract for the size, class, and type of pipe actually installed. The unit price set forth in the Contract will constitute full compensation for excavation and native soil backfilling; de-watering; sheeting and shoring driven and pulled and drag shields for trenches of all depths; placing and removing all traffic signs and barriers and maintaining traffic; as-builts; as well as furnishing and installing the sewer lateral piping and fittings. Connection of sewer lateral pipe of different materials shall be with shear-resistant transition repair couplings. The couplings shall connect to the pipe ends with type 316 SS nut and bolt worm gear clamps. The couplings shall be ASTM C1173 & D5926 compliant, and shall be a Series 5000 Repair Coupling as manufactured by Fernco, Inc., or approved equal. The unit price shall also be full compensation for locating existing sewer lateral piping; the removal and disposal of the existing wastewater lateral piping; plus all incidental work including labor, materials, tools, and equipment.

928 FDOT PAVEMENT MARKING REQUIREMENTS

- Pavement markings should be placed as shown on the plans and detail sheets. If no specific striping comments are noted on the drawings, the Company shall replace damaged/removed striping due to construction activities with like striping and/or reflectors all in accordance with FDOT requirements.
- Any required temporary markings must be in place before opening lanes of traffic. Pay items for temporary pavement markings are not paid for separately but included in the associated item of paving.
- The removal of existing pavement markings will be considered an incidental item with no additional compensation provided.
- All permanent pavement markings shall be extruded thermoplastic and meet FDOT standard specifications, latest edition.
- Thermoplastic pavement markings are to be placed no sooner than 30 calendar days after the completion of the final pavement layer.
- A bituminous reflective pavement marker (RPM) adhesive meeting current FDOT specifications shall be used on asphalt roadways.
- Reflective pavement markers that do not conflict with permanent (thermoplastic) markings shall be placed on all final asphaltic concrete surfaces immediately after the temporary permanent striping is in place.

929 FDOT UTILITY PERMIT

The Company shall comply with all requirements and instructions in the approve FDOT permit 2018-H-294-173 and the latest edition of FDOT's Standard Specifications for Road and Bridge Construction including, but not limited to, the following:

- No work shall commence in/adjacent to the FDOT ROW at Blanding Blvd until May 1, 2019.
- All work within the FDOT ROW shall be complete within 60 days after commencement.
- Signed and sealed dewatering plan prior to commencing work.
- Signed and sealed shoring plan prior to commencing work.

930 COJ PAVEMENT MARKING REQUIREMENTS

- Pavement markings should be placed as shown on the plans and detail sheets. If no specific striping comments are noted on the drawings, the Company shall replace damaged/removed striping due to construction activities with like striping and/or reflectors.
- Any required temporary markings must be in place before opening lanes of traffic. Pay items for temporary pavement markings are to be included in the tabulation of quantities.
- The removal of existing pavement markings will be considered an incidental item with no additional compensation provided.
- All permanent pavement markings shall be extruded thermoplastic and meet current City of Jacksonville specifications and FDOT standard specifications, latest edition.
- Thermoplastic pavement markings are to be placed no sooner than 30 calendar days after the completion of the final pavement layer.
- A bituminous reflective pavement marker (RPM) adhesive meeting current City of Jacksonville and/or FDOT specifications shall be used on asphalt roadways.
- The Company shall use 4"x4" CLASS -B reflective pavement markers (RPMs) installed to meet current City of Jacksonville specifications and/or FDOT standard specifications. Acceptable examples are: Ennis Paint co., Model 911; Ray-O-Lite, Model AA-ARCI-FH; Apex, 921AR.
- Reflective pavement markers that do not conflict with permanent (thermoplastic) markings shall be placed on all final asphaltic concrete surfaces immediately after the temporary permanent striping is in place.

The Company SHALL contact the Pavement Marking Inspector (904-387-8861) 48 hours PRIOR to installing any pavement markings of any City of Jacksonville roadway or streets.

APPENDIX B - Bid Form
107-18 Construction Services for the West Grid-Wilson to Timuquana 30" Force Main

Company Name: _____

Company's Address: _____

Phone Number: _____ FAX No: _____ Email Address: _____

License (if applicable): _____

BID SECURITY REQUIREMENTS

- ☐ None required
☒ Certified Check or Bond (Five Percent (5%))

TERM OF CONTRACT

- ☐ One Time Purchase
☐ Annual Requirements
☒ Other, Specify - Project Completion

SAMPLE REQUIREMENTS

- ☒ None required
☐ Samples required prior to Bid Opening
☐ Samples may be required subsequent to Bid Opening

SECTION 255.05, FLORIDA STATUTES CONTRACT BOND

- ☐ None required
☒ Bond required 100% of Bid Award

QUANTITIES

- ☐ Quantities indicated are exacting
☒ Quantities indicated reflect the approximate quantities to be purchased Throughout the Contract period and are subject to fluctuation in accordance with actual requirements.

INSURANCE REQUIREMENTS

Insurance required

PAYMENT DISCOUNTS

- ☐ 1% 20, net 30
☐ 2% 10, net 30
☐ Other _____
☐ None Offered

SUNSHINE LAW ACKNOWLEDGEMENT

_____(Initials) I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my bid will be disclosed to the public "as-is".

Item	ENTER YOUR BID FOR IFB 107-18	TOTAL BID PRICE
1	Total Bid Price For The Project (transfer Item 71 (cell G77) in Bid Workbook)	\$

BIDDER'S CERTIFICATION

By submitting this Bid, the Bidder certifies that it has read and reviewed all of the documents pertaining to this Solicitation, that the person signing below is an authorized representative of the Bidder's Company, that the Company is legally authorized to do business in the State of Florida, and that the Company maintains in active status an appropriate contractor's license for the work (if applicable). The Bidder also certifies that it complies with all sections (including but not limited to Conflict Of Interest and Ethics) of this Solicitation, and that the Bidder is an authorized distributor or manufacturer of the equipment that meets the Technical Specifications stated herein.

We have received addenda

_____ through _____

Handwritten Signature of Authorized Officer of Company or Agent _____ Date _____

Printed Name and Title _____

APPENDIX B
Minimum Qualification Information - 107-18

Construction Services for the West Grid-Wilson to Timuquana 30" Force Main

GENERAL

The minimum qualifications shall be submitted in the format attached. The report shall be presented in the order described below. In order to be considered a qualified supplier by JEA you must meet all the criteria listed and be able to provide all the services listed in this specification.

The Bidder must complete **one (1) original and two (2) duplicate copies** of the following information and any other information or attachments.

BIDDER INFORMATION

COMPANY NAME: _____

BUSINESS ADDRESS: _____

CITY, STATE, ZIP CODE: _____

TELEPHONE: _____

FAX: _____

E-MAIL: _____

PRINT NAME OF AUTHORIZED REPRESENTATIVE: _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE: _____

- Only those companies approved to be on JEA's Responsible Bidders List (RBL) **WM1 Water, Sewer Reclaim Pressure Pipe Construction Underground Greater than 24" Diameter**, as of the bid due date
- Contractor or subcontractor shall submit one (1) representative project that they successfully self-performed the installation of 150LF of 36" diameter or greater steel casing by the jack and bore method under a Florida Department of Transportation Roadway within the last five (5) years, as of the Bid due date

1. Reference Name _____

Reference Phone Number _____

Reference E-Mail Address _____

Contract Duration/Amount _____

Description of Project _____

107-18 LIST OF SUBCONTRACTORS

JEA Solicitation Number #107-18 requires certain major Subcontractors be listed on this form, unless the work will be self-performed by the Company.

The undersigned understands that failure to submit the required Subcontractor information on this form will result in bid rejection, and the Company agrees to employ the Subcontractors specified below: (Use additional sheets as necessary)

Note: This list of Subcontractors shall not be modified subsequent to bid opening, without a showing of good cause and the written consent of JEA.

Type of Work	Corporate Name of Subcontractor	Subcontractor Primary Contact Person & Telephone Number	Subcontractor's License Number (if applicable)	Percentage of Work or Dollar Amount	Will the Provider Self Perform this Category? Yes/No
Asphalt Paving					
Concrete Curb					
Concrete Driveway					
Subaqueous FM Installation					
48" Diameter Jack & Bore					

Signed: _____

Company: _____

Address: _____

Date: _____