# **Appendix A - Technical Specifications**

# 092-20 Construction Services for 5th St W - Imeson Rd to Melson Ave - Trans - New - FM

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### **SCOPE OF WORK**

JEA is soliciting Bids from construction contractors (hereinafter referred to as "Company or Contractor") for construction services for **5th St W - Imeson Rd to Melson Ave - Trans - New - FM** Project (the "Work" or "Services".)

- A. This request is to solicit bids for Construction of approximately 18,500LF of 20-inch Force Main from Imeson Rd to Melson Ave utilizing open cut construction method along 5<sup>th</sup> St for most of the project. Including five CSX/ROW Jacking and Boring and Major collector roadway crossings, one directional drilling under FDOT/I-295, two new 8-foot polymer MH installations, 38LF of 27-inch and 64LF of 36-inch new gravity sewer pipe and replacements. The main purpose of this project is to provide additional capacity to dual 12-inch force mains along the project corridor and to minimize sulfide odors at the two 12-inch FM discharge
- B. The Company shall strictly follow JEA's Water and Wastewater Standards Manual, issued on 2020 or latest version, during the construction of the improvements. Contractor shall use a Request for Information in the event of a discrepancy.
- C. The following is a link to the JEA Water and Wastewater Standards: https://www.jea.com/Engineering\_and\_Construction/Water\_and\_Wastewater\_Standards/
- D. The Company shall follow and comply with COJ Land Development Code and JEA Water and Wastewater Standards
- E. The duration of work from the notice to proceed will be five hundred and fourthly nine (549) days until substantial completion and five hundred and seventy-nine (579) days until final completion.

## 1. BID DRAWINGS

TITLED "Construction Drawings for **5th St W - Imeson Rd to Melson Ave - Trans - New - FM**" prepared by Mott MacDonald are attached (08172020 JEA 5th Street West - 20-inch FM - 100% Design)

# 2. SUPPORT DOCUMENTATION

- 092-20 Appendix A Technical Specifications
- 092-20 Appendix A Supplemental Technical Specifications (prepared by Mott MacDonald)
- 092-20 Appendix A Drawings
- 092-20 Appendix C Geotechnical Report
- 092-20 Appendix C CSX Permit
- 092-20 Appendix C CSX General Agreement Supplement
- 092-20 Appendix C COJ Permit
- 092-20 Appendix C FDEP Permit
- 092-20 Appendix C FDOT Permit 2020-H-294-00451
- 092-20 Appendix C Legal Description Construction Easement Map 1 Legal
- 092-20 Appendix C Legal Description Construction Easement Map 2 Legal
- 092-20 Appendix C Ground Water Sampling Report
- 092-20 Appendix C VVH Report

## 3. ROW PERMIT

The Company shall obtain a ROW permit from COJ before starting construction activities

#### 4. PERMITS

JEA has obtained the following permits for the project:

- COJ CDN 4161.285
- FDEP/USACE ERP pending
- CSX
- FDEP WM stub-outs
- FDEP/EQD FM
- FDOT

### 5. SURVEYING

In addition to the Surveying requirements of this solicitation, the Contractor shall be responsible for staking the project stationing, easements and/or right-of—way boundaries. The survey datum used for this project is N.A.V.D 1988. and shown in feet

### 6. CLEAR AND GRUB

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.

## 7. 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.

## 8. LANDSCAPING

The Company shall be responsible for protection and preservation of all trees, palms, shrubs, irrigation systems, landscaping, signs etc. along the route of the proposed work including hand digging, removal and storage of such and subsequent replacement to the fullest extent possible of the pre-existing condition. All costs associated with such shall not be paid for separately but shall be included in the cost of the associated item of work.

## 9. RESTORATION

The drawings show limits for all restoration items based on the existing design location of the proposed main and are provided for the Contractor's convenience. If the Contractor is forced to move the main into pavement or sidewalk due to a direct conflict with a utility or tree, the JEA Representative must be notified immediately and authorize such work.

Damage to asphalt, sidewalks, or curb and gutter (not indicated for removal and replacement) will be replaced at the Contractor's expense unless otherwise authorized by JEA.

### 10. SOD RESTORATION

JEA will pay for sod restoration <u>only at pre-existing sodded areas</u> disturbed by the trench excavation (See item Trench Excavation) and for a 2FT strip of sod along the Edge of Pavement when pipe installation instructed to be along Roadways at less than 3FT horizontal distance from EOP or otherwise noted on the construction drawings. Restoration of seed and sod areas will be measured and paid under the appropriate seeding and sodding bid items

## 11. TRENCH EXCAVATION

Topsoil shall be stripped from the top of the trench and placed to the side for reuse during the final layer of backfill to facilitate productive growth of lawns, crops, and other vegetation, minimizing sod damage in all areas. Trenches shall be of sufficient width to provide free working space on each side of the pipe and to permit proper backfilling around the pipe, but unless specifically authorized by the ENGINEER, trenches shall in no case be excavated or permitted to become wider (as measured at the top of the pipe) than 2 feet plus the nominal diameter of the pipe. The desired width shall be the nominal diameter of the pipe plus 16 inches. The minimum allowable trench width shall be the nominal diameter of the pipe plus 6 inches. Trenching equipment that cannot maintain these minimum widths will not be allowed for use on the project.

Trench excavation shall proceed far enough ahead of pipe laying to reveal any obstructions that might necessitate changing the line or grade of the pipeline. The trench shall be reasonably straight and uniform in grade. Trenches shall be kept free of water during the construction of the pipeline and removal of water shall be at the Contractor's expense. Trench excavation shall proceed in a continuous manner from the beginning of the pipeline to the end.

Unless specifically authorized by the ENGINEER, no skipping by obstacles such as rock, road crossings, existing utilities, etc. shall be permitted. If skips are authorized by the ENGINEER and the CONTRACTOR does not close the resulting gaps in the pipeline in a timely manner, the ENGINEER may require the CONTRACTOR to discontinue all other operations until the gaps are closed.

Unless specifically directed otherwise by the ENGINEER, not more than 500 feet of trench shall be opened ahead of the pipe laying, and not more than 500 feet of open ditch shall be left behind the pipe laying. All barricades, lanterns, watchmen, and other such signs and signals as may be necessary to warn the public of the dangers in connection with open trenches, excavations, and other obstructions, shall be provided by and at the expense of the CONTRACTOR.

At the close of each working day all trenches that have been excavated shall be refilled unless exceptions are granted by the ENGINEER. All public or private drives shall be promptly backfilled or bridged at the direction of the ENGINEER.

All excavation shall be "unclassified" and therefore the cost of all excavation should be merged into the construction of the pipeline

### 12. WATER SERVICES:

If any, all are to be bored unless indicated otherwise on drawings

### 13. COORDINATION OF CONSTRUCTION WITH EXISTING UTILITIES

The Company shall establish liaison with and coordinate work with JEA, BellSouth / AT&T, TECO/Peoples Gas and Comcast to prevent interference with overhead and buried electrical, telephone, and television cables. BellSouth, TECO/Peoples Gas, and Comcast may need time to relocate their facilities.

The Company shall at all times conduct its operation so as to interfere as little as possible with the existing utilities. The Company shall develop a program in cooperation with the JEA and interested representatives of Utilities and City agencies, which shall provide for the construction of, and putting into service, the new work in the most orderly manner possible. This program shall be adhered to, except as deviations therefrom are expressly permitted. All work of connecting with, cutting into, and reconstructing existing pipes and structures shall be planned so as not to interfere with the operation of the existing utility.

### 14. COMPANY'S STAGING, STORAGE AND STOCKPILE AREA

No additional staging, storage, and stockpile will be made available by the JEA along the project site. The Company is not allowed to store any equipment or materials in the right-of-way and JEA's designated easement limits. The location will be agreed to upon and discussed at the pre-construction meeting.

## 15. LOCATION AND PROTECTION OF EXISTING PROPERTY - ON NON-RIGHT OF WAY ISSUES

When working in areas outside the normal City, County and/or State right-of-ways, the Company shall be responsible for location and protection of all property shown or not shown on the drawings, including maintenance and repair of any damaged utility service. Utility locates shall be provided in accordance with local and state requirements. If the drawings indicate abandonment or removal of property or utility service by the Company, the Company shall proceed after it has determined that all services have been deenergized and/or decommissioned. The Company shall coordinate with the owner of the property (Owner) and the appropriate utility company to determine status of the existing utility service prior to starting work in the area. All property and utility services that are to remain shall be appropriately protected and maintenance during the construction activity. Should there be additional cost to the Company for protection or maintenance of property or utility services not shown on the drawings, the Company shall justify and document this cost in writing to the JEA Contract Administrator. A Supplemental Work Authorization (SWA) will be negotiated and approved prior to starting work. Should property or utility services be damaged by the Company, the Company shall notify the JEA Inspector, the Owner and the utility company immediately. Should the damage interrupt service, the Company shall be responsible for restoring service as soon as possible. However, the Company shall not make repairs without approval of the Owner or the utility company and should the Owner or a particular licensed Company be required to make the repairs the Company shall be responsible for coordinating this effort as well as any cost associated with the repair. JEA reserves the right to deduct any unsettled claim amount from monthly progress payments until such time as the claim is satisfactorily resolved. This paragraph is intended to stress the importance of customer relations and the maintenance of all services to the customer.

# 16. SEQUENCE OF WORK

Company shall complete work from Sta. 0+00 to Sta. 31+50 before temporary easement expires on August 2021 and according to FDEP/ERP and USACE permits

Work at CSX ROW shall be performed according to permit requirements.

Work at FDOT ROW should follow permit specifications.

Contractor to coordinate MOT, bypassing pumping, piping and other work with JTA project under construction east of the 5<sup>th</sup> and Melson intersection.

Work at Sta. 167+50 to Sta. 169+29 shall be completed during School Calendar Summer break and according to other school hour requirements

Company shall finish FDOT ROW work according to and before permit expires on August 20, 2021

### 17. PAVEMENT REPAIR (ONLY FOR OPEN CUT OPTION)

Any COJ standard pavement repair shall be completed within 10 calendar days or when 500LF 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.

### 18. ROADWAY RECONSTRUCTION

The Company shall perform survey of existing roadway horizontal alignment and vertical grade of the existing limits of construction prior starting the work. No separate payment shall be made, but all costs shall be included in the lump sum cost of the General Conditions line items. Intent is to remove and replace impacted roadway, curb & gutter, and sidewalk portions to existing alignment, width, and grade to match existing elevations after open cut construction is performed.

## 19. TEMPORARY ROADWAYS

If the Company's operations render any street or private way potentially unsafe, the Company shall make such repairs or provide such temporary ways and guards necessary for the protection and safety of persons on the Work Site and the public, and for the orderly maintenance of traffic.

The Company shall always provide and maintain a hard-surfaced roadway for traffic. Where temporary detours of lanes are required, they shall be asphalt-paved by the Company. The Company may construct paving section(s) appropriate to support traffic, provided the surface is smooth and the profile reasonable, and as a minimum, consists of 1 inch of bituminous structural course over a 6-inch limerock base that was inspected and approved by the JEA Engineer. Should any temporary pavement fail, the Company shall be responsible for repairing it, at its own cost, before close of Work on the day notification is given. Should the Company be unable to make such repair by close of Work, the Company shall notify the JEA Engineer and provide an estimated time when repairs can be made. No repair timeframes shall exceed 48 hours. Any damages, either direct or indirect, resulting from such temporary pavement failures shall be the sole liability of the Company.

All limerock base material used for temporary pavement and constructed in proposed grassed areas shall be completely removed and disposed of by the Company prior to final restorative grassing operations. The area shall be backfilled with material stockpiled on the Work Location that is conducive to growth of the plant material. All costs associated with this work shall be included in the associated line item in the Bid Form Workbook.

# 20. PAVEMENT REMOVAL (OPEN CUT ONLY)

Saw cuts must be used on all asphalt removal.

## 21. COJ PAVEMENT MARKING REQUIREMENTS (OPEN CUT ONLY)

The Company shall comply with COJ pavement marking requirements.

## 22. SWALE AND DITCH CONSTRUCTION/REGRADING

The Company shall re-grade all existing swales and ditches. No separate payment shall be made for regrading or construction of new drainage ditches as shown on the drawings, but shall be included in the Bid Document for roadway paving replacement. Payment for ditch invert will be the same as made for storm pipe invert. Payment for sodding of ditches will be separate.

### 23. DUST CONTROL

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

### 24. NOISE ORDINANCE

The company should adhere to the City's current noise ordinance

### 25. PERMIT COORDINATION MEETING

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 Engineer and JEA Inspector.

### 26. CONNECTIONS TO EXISTING UTILITIES

Contractor shall verify size and type of pipe at each connection prior to ordering materials for connections. Price for connections shall be a lump sum price to include the installation of restraints/sleeves as shown in the plans or as approved by JEA.

# 27. MAINTENANCE OF TRAFFIC

The Company shall adhere to the maintenance of traffic plans, including construction zone signing, pavement marking, barricades, barriers, etc. as shown on the project drawings. The Company shall provide written approval from COJ to any proposed alternate MOT plan to JEA prior to starting work in area of alternate MOT plan.

Temporary closure of business entrances must be approved and coordinated with JEA. The affected business shall be given at least forty-eight (48) hours' notice prior to the closure. Any deviation from the contract documents or the requirements of the FDOT Roadway and Traffic Design Standards, such as construction zone signing, barricades, warning devices, temporary striping, flagmen, etc., must be approved by the JEA. The JEA shall be notified and approval shall be obtained forty-eight (48) hours in advance of such deviation.

Payment for all work required for maintenance of traffic, not provided for as a specific pay item, including, but not limited to, Temporary Pavement, Flagmen, off-duty police officers, lighting, etc., shall NOT be paid for separately but included in the associated line item.

# 28. UTILITY POLE HOLDING / SUSPENDING

Holding or suspending of utility poles including power poles and telephone poles 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. The Company must coordinate any utility pole holding/suspending with JEA. The Company shall schedule a meeting with the JEA Electrical representative in the field to discuss the anticipated work. A minimum of two (2) days' notice for the field meeting is required. The actual pole hold work will be scheduled at the field meeting.

No separate pay item will be made for this work and all costs shall be included to the associated work item unit cost as indicated in the Bid Form.

The work must be performed by licensed electrical contractor in accordance with JEA's safety requirements for electrical contractors. The electrical contractor must be listed on JEA's Responsible bidders list under category EG2 DISTRIBUTION CONSTRUCTION- UP TO 45 KV (ENERGIZED & DE-ENERGIZED)

### 29. DEWATERING

No additional payment shall be made for dewatering unless approved by a Supplemental Work Authorization.

## 30. DRAINAGE ALONG RIGHT OF WAY AND UTILITY EASEMENT

The Company shall so conduct its operations and maintain the Work in such condition that adequate drainage shall be in effect at all times. The Company shall not obstruct existing gutters, ditches and other runoff facilities.

# 31. 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 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 Office, 21 W. Church Street, Customer Center 1<sup>st</sup> Floor – Room 002, Jacksonville, FL 32202, (904) 665-6740, or by fax (904) 665-7294, or online at JEA.com.

## 32. TRAFFIC SIGNAGE

Costs incurred by the Company to provide new signage and pavement markers, or remove and replace existing signage as necessary to accomplish the work shall not be paid for separately but shall be merged with the cost of the associated item of work. Damaged signage shall be replaced with new signage. All signage and pavement markers shall be in accordance with the drawings, FDOT requirements and City Traffic Engineer's requirements.

## 33. COJ/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 Contractor shall replace damaged/removed striping due to construction activities with like striping and/or reflectors.

- a. 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.
- b. The removal of existing pavement markings will be considered an incidental item with no additional compensation provided.
- c. All permanent pavement markings shall be extruded thermoplastic and meet current FDOT standard specifications

- d. Thermoplastic pavement markings are to be placed no sooner than thirty (30) calendar days after the completion of the final pavement layer or directed by JEA/COJ or FDOT
- e. A bituminous reflective pavement marker (RPM) adhesive meeting current COJ and/or FDOT specifications shall be used on asphalt roadways.
- f. The contractor shall use 4" x4" CLASS –B reflective pavement markers (RPMs) installed to meet current FDOT standard specifications. Acceptable examples are: Ennis Paint co., Model 911; Ray-O-Lite, Model AA-ARCII-FH; Apex, 921AR.
- g. 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.
- h. The contractor SHALL contact the FDOT Inspector forty-eight (48) hours PRIOR to installing any pavement markings on any FDOT roadway or street or COJ Engineering Services Department (904) 530-6225.

# 34. TEMPORARY MAILBOX REMOVAL/RELOCATION

Contractor shall remove and temporarily relocate any mailboxes that are in conflict with construction for that working day. All mailboxes removed/relocated shall be reinstalled by the end of that workday. It is the contractor's responsibility to protect all mailboxes from damage during construction. Damage to any mailboxes during construction will be replaced at the Contractor's expense. All costs associated with temporary relocating mailboxes shall not be paid for separately but shall be incorporated in the associated line item work.

## 35. CRITICAL PATH METHOD (CPM) SCHEDULING, RESOURCE AND COST LOADING

Please see section 2.13.2 of the solicitation for CPM requirements.

## 36. GENERAL CONDITIONS/SPECIAL CONDITIONS

The line item shown on the Bid Form titled "General/Special Conditions Lump Sum Price" shall be used for general and special expenses, which do not appear as separate line items on the Bid Form, including, but not limited to, costs and expenses related to the following:

- The execution and recording of the Payment and Performance Bonds
- Safety requirements
- Quality Control
- Preparation of daily reports
- Maintenance of traffic
- Attendance of meetings, project scheduling
- Testing (if not included elsewhere)

Except as provided below for expenses related to Bonds and Surveying, JEA's payment for the General/Special Conditions line item shall be based upon the percentage of Work completed.

Bonds - Company will be permitted to invoice JEA, in its first payment application, for the costs associated with the execution and recording of the Payment and Performance Bonds. The amount paid by JEA for the Payment and Performance Bonds will be deducted from the General/Special Conditions line item total.

Surveying – Prior to construction, the Company will be permitted to invoice JEA for costs associated with the survey of the existing roadway horizontal alignment. The amount paid by JEA for these costs will be deducted from the General/Special Conditions line item total.

SWA - In the event that JEA authorizes changes to the Work under a Supplemental Work Authorization (SWA), the amount of the Bid Form line item for SWA Allowance will not be increased unless the total value of all SWA Work exceeds the original SWA Allowance provided on the Bid Form.

### 37. PERMITS AND PLAN APPROVALS

The Contractor must obtain a Notice of Intent to Use Noticed General Permit for Short Term Construction Dewatering (Form 40C-22-0590-1) prior to the commencement of any dewatering. As part of the permit, a Notice to District of Dewatering Activity (Form RDS-50) must be submitted to the SJRWMD ten days before commencement of dewatering.

Contractor shall comply with all requirements and conditions of the JEA Permit for Construction of the pipeline.

Contractor is responsible for obtaining COJ Right-of-Way (ROW) Permit prior to construction with COJ

### 38. PROJECT OUTREACH MEETINGS

The Company's project manager, superintendent and customer satisfaction representative for this Work shall be required to attend JEA project outreach meetings including potential "Town Meetings" scheduled through JEA Project Outreach or COJ.

### 39. PROJECT SIGNS

Contractor to remove project signs after construction completion

## 40. AS-BUILTS

Upon submission of each payment application, Company shall furnish to the JEA Engineer a photocopy "redline" set of drawings identifying those field changes made to the Work to date, along with a photocopy set of the associated field notes. Revisions and recording of information on the photocopy set of drawings shall be done in scale in red ink clearly and accurately identifying those changes in the Work by a competent drafter. All "As-Built" information shall be recorded and kept current during the progress of the Work. The JEA Engineer may review and comment on the drawings which shall be incorporated into the next month's As-Built submittal. Failure to incorporate changes the following month may result in denial of pay application request. These requirements only supplement the requirements of the General Conditions.

When the payment of application submitted includes associated items of final restoration for a project, or a portion of the project thereof, then the associated final as-builts shall be submitted as a "redline" marked photocopy set of drawings for that pay period. The Project Engineer may review and comment on the drawings with the view toward final As-Built submittal. The subsequent month submittal made with the payment application shall incorporate a photocopy set of CADD drawing final as-builts. The JEA Engineer shall review and comment on the photocopy set of CADD drawings which shall be incorporated into the final As-Built submittal. These requirements only supplement the requirements of the General Conditions.

As-Builts shall be provided to JEA once construction substantially completed. Completion of the project will only be accepted once As-Builts have been accepted by JEA GIS requirements.

Limits of flowable fill should be indicated in final as-builts

### 41. COMPANY SAFETY MEETINGS

Copy of weekly companies' safety meeting record to be provided to JEA every week

#### 42. 2 INCH CORPORATION STOP ASSEMBLY

To ensure air evacuation during initial filling and testing of the pressure mains it may be necessary to furnish and install 2" bleed off ports at locations in the pipelines where air pockets would be expected to accumulate. The 2" bleed off assembly is incidental to the work, No separate payment for a 2" bleed off assembly will be made but all costs shall be merged with the associated item of work including furnishing and installing, complete, all necessary double band service saddle (2" outlet); 2" corp. stop/gate valve; plug; all required removal of grassing; excavation; de-watering; native soil backfill; furnishing and placing steel decking over excavations; all sheeting, shoring, and bracing required to maintain excavations in a safe condition; flushing, protecting existing structures, utilities and property both public and private; placing and removing all traffic signs and barriers and maintaining traffic; cleaning up the site; furnishing all material, labor, tools and equipment; and all incidental and related work to complete the item.

### 43. SILT FENCE ASSEMBLY

The Company shall furnish and install silt fence assembly (including fabric, stakes, etc.) in accordance with the details shown on the Erosion Control Drawings, and as required by the SJRWMD. Measurement shall be by horizontal projection of silt fence parallel to the pipeline. No separate payment shall be made for silt fence assembly but all costs shall be merged with the associated item work.

### 44. WATER MIN STUB OUTS CD-10 DETAILS A AND B

Lump sum shall include price for all tees, end caps, valves, tapping sleeves, reducers, pipe, and fittings shown on details CD-10 A and B. Water Stub outs at 1. Approx. Sta. 103+50 Ellis Rd N, 2. Melson Ave and  $5^{TH}$  Intersection approx. Sta. 169.26

### 45. INTERCONNECTION OF 20" FM AND EXISTING DUAL 12" FM

Each lump sum shall include price for Gate Valves, Tees, Reducers, sleeves, fittings and other specified in detail drawings CD-11 A, CD-17. Interconnections, 1. At before I-295 drill approx. Sta. 45+50, 2. After I-295 drill approx. Sta. 54+00, 3. Before Little Sixmile Creek approx. Sta. 123+80, 4. After Little Sixmile Creek approx. Sta. 126+80, 5. Before 5<sup>th</sup> and Melson Ave Intersection at Approx. Sta. 167+50 and 6. Before 5<sup>th</sup> and Melson Ave Intersection at Approx. Sta. 167.65

# 46. UNSUITABLE SOIL LIMITS

Contractor shall include any soil material replacement for unsuitable soil in the total price of pipe installation, see CD-13, CD-14, CD-15

### 47. TEMPORARY BY-PASSING PIPING AND PUMPING

Refer to Appendix for Temporary By-passing Technical Specifications, conceptual drawing G-6, detail CD-11 B

### 48. FIELD VERIFY EXISTING DUAL 12" FM AT 5TH ST W - MELSON AVE INTERSECTION

Refer to Appendix A: Supplemental Technical Specifications prepared my Mott MacDonald Section for this section. Payment for the field verification will be made on a time and material basis against the allowance indicated on the bid form. The Company shall provide backup documentation with the invoice to justify amount being invoiced.

### 49. JACKING AND BORING CASING INSPECTION

Contractor shall submit to JEA PM for review and approval a picture of inside casing prior to installing carrier pipe for Jack and Bores. Any abnormalities in casing installation shall be communicated to JEA for review PRIOR to installing carrier pipe.

### 50. JEA INSPECTION OVERTIME COST REIMBURSEMENT

The Contractor shall reimburse JEA for all inspection overtime costs if the contractor works past the defined Work Schedule as defined in Section 2.5.2 of this solicitation. The associated reimbursement shall be taken as credit on the SWA form. The only exceptions to this reimbursement requirement is during pipe pull back during the horizontal directional drill within the FDOT right-of-way and during the jack and bore casing installation within the CSX right-of-way.

### 51. ROCKHARD AND USCP MH INSTALLATION

Contact information:

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