

034-20 - APPENDIX A - TECHNICAL SPECIFICATIONS

GATE PARKWAY TO BURNT MILL RD – RECLAIMED WATER MAIN

901. Scope of Work

JEA is soliciting Bids from construction contractors (hereinafter referred to as “Company”) for Construction of the *Gate Parkway to Burnt Mill Rd - Reclaimed Water Main* project.

The Scope of work specified herein the installation of approximately 8,696 linear feet of 8-inch PVC reclaimed water main (RWM) by open cut, 60 linear feet of 4-inch PVC reclaimed water main by open-cut, and reclaimed water irrigation services. The 8-inch reclaimed water main will connect to an existing 8-inch stub-out at Gateway Village Dr west of the intersection of Gate Pkwy, continue along Gate Pkwy and connect to the existing 20-inch reclaimed water main located in a JEA electric easement, then pickup again south of the easement, connecting to an existing 8-inch reclaimed water main at Village Crossing Dr, continuing south on Gate Pkwy, terminating at the IKEA Store entrance.

The proposed work is within the Gate Pkwy City of Jacksonville Right-of-Way, and JEA easement.

All Work shall be done in accordance with the January 2020 Edition of JEA Water & Wastewater Standards Manual. The following is a link to the JEA Water and Sewer Standards:

https://www.jea.com/Engineering_and_Construction/Water_and_Wastewater_Standards/

The following scope of work will be defined as the base bid for this contract and shall include, but is not necessarily limited to, the following:

- Installation of approximately 8,696 linear feet of 8-inch PVC reclaimed water main (RWM) by open cut, and 60 linear feet of 4-inch PVC reclaimed water main by open-cut within COJ ROW and JEA Easement
- Installation and conversion of existing potable water irrigation services to reclaimed water irrigation services
- Transfer of existing potable water irrigation services to reclaimed water irrigation services
- Mobilization/demobilization, general requirements, and insurance
- Installation of Maintenance of Traffic (MOT) signs, devices, striping and measures to construct the project
- Installation/maintenance of erosion & sediment control devices/measures (E&SC) & other aspects of the storm water pollution prevention plan (SWPPP)
- Site work
- Sodding
- Asphalt milling and resurfacing of the two (2) northwesterly bound lanes on Gate Pkwy between the curbed median and edge of pavement and at intersections of cross streets throughout the project limits
- Restoration of COJ Right of Way including traffic loops
- Installation of isolation valves and appurtenances as per the construction drawings
- Installation of connection to existing reclaimed water mains
- Performance of all testing and swabbing required during construction
- Performance of all permits necessary to complete the work
- Performance of all site restoration to preconstruction (or better) condition

902. General Conditions

The General Conditions Lump Sum price shown on the Bid Form shall be compensation to complete the Work as required in this contract (except for items listed separately on the bid form), including but not limited to, Payment Bond, Performance Bond, Safety, Quality Control, Preparation of Daily Reports, Maintenance of Traffic, Attendance at Meetings, Scheduling, Testing (if not included elsewhere). Payment of the General Conditions Lump Sum Price shall be based upon the percentage of Work completed: however, if the Company executed bond(s) accompany the first pay request then the amount paid will be deducted from the associated subtotal. Also, the Company shall include the cost for performing survey of the existing roadway horizontal alignment (prior to initiating any construction or MOT) in their initial General Conditions payment. In the event that changes to the work are required that are covered under the Supplemental Work Authorization account, the General Conditions Lump Sum Price will not be increased unless the total value of the SWA exceeds the original SWA account provided in the original contract bid.

903. Bid Drawings

Titled Construction Drawings for “Reclaimed Water Main-Gate Parkway to Burnt Mill Road”, dated January 2020, prepared by J. Collins Engineering Associates, LLC.

904. Geotechnical Report

Titled “Report of Geotechnical Exploration Reclaimed Water Main – Gate Parkway”, Jacksonville, FL; prepared by ECS Florida, LLC, ECS Project No. 35-29099, dated August 6, 2019 is attached. The Company is responsible for being thoroughly familiar with the general subsurface conditions, design recommendations, earthwork recommendations, geotechnical boring logs and other pertinent information for this project.

905. Subsurface Utility Engineering (Vacuum Test Hole Reports)

Test hole reports 4 through 29 (test holes 1 to 3 not applicable) titled “Vacuum Test Hole Report” prepared by DeGrove Surveyors, Inc., dated July 22 to 25, 2019 are attached. The Company is responsible for being thoroughly familiar with this data for this project.

906. Permits and Plan Approvals

JEA will provide the following permits/Approvals for the Project:

- COJ Plan Approval; CDN 4161.267, issued December 12, 2019.

Prior to commencing Work the Company is responsible for obtaining the following permits, including but not limited to:

- City of Jacksonville (COJ) Right-of-Way Permit
- FDEP NOI to Use NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) – Form 62-621.300(4)(b)
- SJRWMD Notice to District of Dewatering Activity – Form 40C-2-900-12

All costs associated with obtaining such permits shall not be paid for separately but shall be included in the cost of the associated item of work in the Bid Form. The Company shall comply with all conditions of

permits issued for the Work, either directly or indirectly, issued by federal, state, or local governmental agencies.

907. 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 Engineer and JEA Inspector.

908. Project Work Hours

The Company shall comply with the City of Jacksonville project work hours at all times along Gate Parkway and all cross streets, where work is only allowed from 9:00 am to 4:00 pm Monday through Friday.

No lane closures are allowed from 7:00 am to 9:00 am and 4:00 pm to 7:00 pm Monday through Friday.

Reference is made to Drawing No. TTC-1 for project working hours.

909. Critical Path Method (CPM) Scheduling

The Contractor shall use the Critical Path Method (CPM) to schedule and manage the Work in accordance with Section 2.13.2 of the Solicitation.

910. Temporary Traffic Control Plan

The Temporary Traffic Control (TTC) Plan shall be in accordance with the approved drawings, TTC-1 to TTC-37, which includes 28 Work Zones. Payment will not be paid for separately, but shall be included in the associated bid item as set forth in the Bid Form, and shall include, but not be limited to, mobilization, excavation, sod, pavement marking removal, pavement marking removable tape, thermoplastic pavement marking, thermoplastic preformed pavement marking, permanent tape for concrete bridges, permanent tape for concrete surfaces, temporary reflective pavement markers, permanent reflective pavement markers, work zone signs, temporary barrier wall, temporary crash cushion, channelizing devices, milling existing asphalt pavement, superpave asphaltic concrete, grounding rumble strips and portable changeable message sign, removal of all TTC components, cleaning up the site; furnishing all material, labor, tools, and equipment and all incidental and related work required to complete the work of the item.

911. 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.

912. Pipeline Trench Repair

Upon completion of the pipeline trench repair, the roadway shall be restored to a drivable surface consisting of temporary asphalt either 1-inch of type S-III or S-1 placed on a limerock surface before it is reopened to traffic at the end of each day and before the Contractor moves to the next construction zone.

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.

913. Roadway Restoration

Company shall perform survey of existing roadway horizontal alignment and vertical grade and of the existing structures and appurtenances for the Work area prior to initiating any construction. 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 restore existing roadway, structures and appurtenances to existing alignment, width, and grade to match existing elevations after construction is performed.

Damage to existing features, including but not limited to asphalt, sidewalks, curb and gutter, drives, fencing, signs, and lights, will be replaced at the Company's expense unless otherwise authorized by JEA.

914. 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 and FDOT requirements.

915. Reclaimed Irrigation Meter Service Connections

There are five (5) existing meters that shall be directly converted from potable water irrigation services to reclaimed water irrigation services as part of this project. No other existing irrigation meters served from potable water will be converted to reclaimed water. The meters to convert are identified in the table below:

		Address	Meter #	RFD #	Meter Size	Lat/Long
PP-11	E	6061 Gate Py - IR01COM	68184688	27402486	2"	30.24775, -81.5222
PP-10	F	5555 Gate Py - IR01COM	84087127	32511936	2"	30.24809, -81.52397
PP-8	G	5335 Gate Py - IR01COM	86131636	32501743	2"	30.24782, -81.52728
PP-7	H	5201 Gate Py - IR01COM	79200605	27541780	1.5"	30.24707, -81.52846
PP-3	I	5101 Gate Py - IR01COM	80921158	32443490	1.5"	30.24443, -81.53397

The Company shall comply with the requirements identified below and shown on the Plans for reclaimed water irrigation service connections.

- Prior to transfer of existing potable water irrigation services to reclaimed water irrigation services, the Company shall coordinate with JEA Meter Services through the JEA Project Manager.
- The Company shall coordinate and verify that there is a 10-foot minimum separation between the existing potable water irrigation service water lines to remain in service and the proposed reclaimed water irrigation service water line. Any existing water meter boxes affected shall be coordinated with JEA Meter Services and be either relocated or a new water meter and box installed as indicated or as otherwise directed by JEA.
- The Company shall provide a minimum of ten (10) working days advance written notice to JEA prior to converting the potable water irrigation service to reclaimed water for each meter location.

916. Company's Use of Premises

Company shall have complete use of the premises for the performance of the Work. Prior to mobilization, the Company's Work Plan shall address its staging, storage, pipe stringing, pipe installation, and limits of disturbance areas within JEA's Easements, and COJ ROW. Also, the Company shall coordinate activities with any other Company who will be performing work in the same general area.

All work shall take place within the COJ ROW and JEA Easements.

The Company is responsible for securing and obtaining any additional off site storage areas necessary.

Coordinate uses of premises with JEA, and COJ and other entities with vested interest.

Company shall assume full responsibility for security of all its and its subcontractors' materials and equipment stored on the site.

If directed by the JEA or ENGINEER, move any stored items which interferes with operations of COJ or other contractors.

Company is responsible for obtaining and paying for the use of additional storage or work areas if needed to perform the work.

917. 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 outside the right-of-way and JEA's designated easement limits. The location will be agreed to upon and discussed at the pre-construction meeting.

918. Surveying

In addition to the Surveying requirements set forth elsewhere in 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 N.A.V.D. 1988.

919. Existing Utilities

Known surface and subsurface utilities are shown or noted on the drawings as accurately available information will permit. 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 fifteen (15) 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. 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 (1-800-638-4097) to request location of all facilities owned by utilities that participate in the locate program. Failure by the Company to contact Sunshine State 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 FDOT Right of Way, COJ Right of Way, and JEA 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.

920. Coordination of Construction with Existing Utilities

Company shall verify size and type of existing pipe at each connection prior to ordering materials for connections. All costs associated with connections to existing water and sewer utilities shall not be paid for separately, but shall be included in the cost of the associated line items shown on the Bid Form.

The Company shall establish liaison with and coordinate work with (including; but, not limited to) JEA, AT&T, TECO/Peoples Gas, and Comcast to prevent interference with overhead and buried electrical, telephone, and television cables. AT&T, TECO/Peoples Gas, Comcast and others will need time to relocate their facilities.

The Company shall at all times conduct his operation so as to interfere as little as possible with the existing utilities. The Company shall develop a program in cooperation with 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 there from 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.

921. Tie-In Connections and Construction Sequencing Constraints

The Company shall adhere to the following construction sequencing constraints for the work in this Contract. It is not necessarily a complete list of all work to be completed.

- Work shall commence at the northwest end of the project on Gate Pkwy, at the intersection of Gateway Village Dr at STA. 10+00 as shown on Drawing PP-1, and proceed in sequential order of the plan sheets to the end at STA. 32+82.34 as shown on Drawing PP-19.
- The Company shall give a minimum of five (5) working days advance written notice to the JEA of each component proposed for shutdown, tie-in, or disruption, all of which shall be subject to JEA's approval and limitations. The request shall include, but not be limited to, point of connection, fittings to be used, method of flushing, and estimated construction time for connection.
- Connection to the existing system and transfer of services shall be performed by the Company under the JEA's direction. The Company shall not operate any valves in the existing system.
- The JEA reserves the right to postpone connection to existing utilities due to operational and/or weather related concerns.
- Connection to the existing system may depend on the closure of certain valves. The existing valves may be not be operable or may not seal properly. The Company shall coordinate with the JEA in advance of connections to determine condition of existing valves.
- Interruption of service is not allowed during peak flow periods or holidays.
- Work shall proceed continuously to complete connections in the minimum time. Minimize shutdown times by thorough advanced planning. Have required equipment, materials, and labor on hand at time of shutdown.

922. Dewatering

If the Company encounters groundwater, the Company shall be responsible for utilizing a dewatering system(s) to remove water from the excavations. Prior to beginning any dewatering activities, the Company shall comply with all requirements listed in Florida Department of Environmental Protection (FDEP) Dewatering Regulations.

Additionally, prior to any dewatering, the Company shall apply for a St. Johns River Water Management District (SJRWMD) Generic Permit for Short Term Dewatering, and comply with all SJRWMD requirements.

If the above requirements are not followed, the Company shall be held liable for any fines and/or violations incurred by JEA.

923. Landscaping

The Company shall be responsible for protection and preservation of all trees, palms, shrubs, Irrigation systems, landscaping, signs, and 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. No trees shall be removed in the COJ Right-of-Way unless designated for relocation on the construction drawings. All costs associated with such shall not be paid for separately but shall be included in the cost of the associated item of work shown on the Bid Form.

924. Grassing/Sodding

Disturbed areas within the COJ Right-of-Way must be restored to original or better conditions using sod which complies with COJ requirements and specifications. All disturbed areas shall be restored by resodding (if grass was established pre-construction) or seeding and mulching in accordance with Section 441 of the JEA Water and Wastewater Standards Manual, titled, Grassing.

925. Dust Control

The Company shall utilize a water spray truck to mitigate dusty conditions when roadways are unpaved and construction areas have a lack of vegetative cover.

926. 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 and easements.

927. Updated 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.

928. Quality Control and Quality Assurance

The Company shall provide Quality Control to ensure the Work is performed in accordance with the Contract. Quality Control shall be appropriate for the nature of the Work, and shall be conducted in a manner consistent with sound quality management and industrial engineering principles. The Company shall have only personnel trained in Quality Control techniques and experienced with the nature of the Work perform the Quality Control function.

JEA may perform Quality Assurance activities. Such activities whether performed or not, do not in any way limit or reduce the Company's requirements. JEA may become aware of quality related problems during its performance of Quality Assurance, but has no obligation to notify the Company of its findings. The Company shall provide access to all areas of Work, including the Company's facilities, for JEA Quality Assurance personnel and JEA Representatives. JEA will conduct Quality Assurance activities so as not to excessively interfere with the Work, however, where JEA Quality Assurance personnel request specific actions of the Company, the Company shall comply with the request and agrees that such compliance is included as part of its Contract Price.

929. Reporting

The Company shall provide daily reports and other reports as defined in the Contract Documents.

Where the reporting frequency is daily, reports shall be submitted by noon of the following workday. Where the reporting frequency is weekly, reports are due by Monday at noon, covering the prior workweek. Where Monday is a Holiday, the reports are due at noon on the next workday. Where reports are due monthly, reports are due by noon on the first business day of each month. Sample forms for reports may be included in the Contract Documents. Where they are included they are to be used. Where they are not included, the Company shall provide a sample of its proposed report format for each report to the Contract Administrator at least one-week prior to its initial due date. The JEA Engineer will review and either approve or reject use of the report. Where proposed report is rejected, Company shall resubmit revised report formats, until JEA Engineer approves format. Reporting cycle shall begin upon PO date, or, if used, date of Notice to Proceed.

930. Customer Service Plan

The Company's Customer Service Plan to achieve customer satisfaction requirements as determined by JEA Project Outreach shall include, but is not limited to the following:

- Name of Company's Customer Service Representative
- Office phone number
- Mobile phone number
- Email address
- Fax number
- Detailed flow chart outlining how the Company will handle customer concerns
- Preemptive customer satisfaction control measures (such as door hangers provided by JEA, and neighborhood meetings in conjunction with JEA staff)

931. 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. Company may obtain a list of prequalified persons and/or companies by contacting the JEA Procurement Bid Office, 21 W. Church Street, Customer Center 1st Floor – Room 002, Jacksonville, FL 32202, (904) 665-6740, or by fax (904) 665-7294, or online at JEA.com.

932. JEA Company / Subcontractor Safety Requirements

Company and Subcontractors must be prequalified under JEA's safety prequalification program. Bids from Companies not prequalified under the safety program will not be opened. Subcontractors do not need to be safety prequalified at time of bid opening, but must prequalified before they step on the jobsite. To inquire as to status of safety prequalification, contact Jerry Fulop, JEA, 21 W. Church Street, Jacksonville, FL 32202, (904) 665-5810, e-mail: fuloje@jea.com

Company agrees to abide by all JEA's Safety Rules and Regulations in accordance with JEA Company Safety Requirement. In addition, ALL Company employees will be required to attend and successfully complete Company's orientation and supervisor's training at Company's expense prior to the start of any work activities. This is a condition of employment for Company and Subcontractors who perform work for JEA. There will be at least four (4) categories of training mandated. 1) Orientation, 2) Supervisor, 3) Competent Person, and 4) Certified Flagger.

ORIENTATION - Required one day training class for ALL personnel working at JEA's sites. Acceptable training will be EITHER attendance at an OSHA 10 hour class in the last two years (will require an OSHA issued card for proof) or attend the National Center for Construction Education and Research (NCCER) 8 hour Orientation. Company personnel utilizing the OSHA 10 Hour class must also attend the JEA 2-Hour Operation specific training. This training must be completed prior to starting work on a JEA job site.

SUPERVISOR - Orientation and the JEA Safety Leadership Development (SLD) Class. This requirement is for ALL employees paid as a foreman, general foreman, superintendent or any employee that will direct or may be expected to direct work.

CERTIFIED FLAGGER – All Company's performing any construction to or on City of Jacksonville, or State of Florida streets and highways shall provide certified flaggers to direct traffic in accordance with the approved MOT of the project.

NOTE: OSHA ten (10) hour classes are available from the following: Trained and Certified OSHA Instructors, Consultants, Safety Councils, etc. Other training mandated by JEA has been developed and approved by the NCCER. This training will be available from Certified Master Instructors, JEA, Northeast Florida Safety Council or other approved sources and will be tracked in the form of an individual transcript for each employee by NCCER.

Company may request exemption for specialty work based on task to be performed, hazard involved, and duration of work.