

**WORK ASSIGNMENT NO. 11 PURSUANT TO
THE JULY 13, 2010 AGREEMENT BETWEEN THE
CITY OF VENICE, FLORIDA AND
KING ENGINEERING ASSOCIATES, INC.**

WHEREAS, on July 13, 2010, the City of Venice, Florida (“OWNER”) and King Engineering Associates, Inc. (“CONSULTANT”), entered into an Agreement whereby the CONSULTANT would perform professional services for the OWNER pursuant to an executed Work Assignment; and

WHEREAS, on June 8, 2015, the OWNER and CONSULTANT entered into a renewal of the Agreement extending the term of the Agreement to July 13, 2016; and

WHEREAS, the OWNER wishes to authorize the CONSULTANT to perform professional services concerning the “Reclaimed Water Distribution System Improvements” as more particularly described in the Scope of Services herein; and

WHEREAS, the CONSULTANT wishes to perform such professional services,

NOW THEREFORE, in consideration of the premises and mutual covenants contained in the July 13, 2010, Agreement and this Work Assignment, the parties agree as follows:

1. General description of the project: CONSULTANT will provide design, permitting and construction services for reclaimed water main construction and existing pipeline pressure testing.
2. Scope of services to be performed. CONSULTANT shall perform the services described in the Scope of Services attached hereto as Attachment “A”.
3. Compensation to be paid. OWNER shall pay the CONSULTANT the sum of one hundred twenty seven thousand, three hundred eighteen dollars and zero cents (\$127,318.00) for performance of the professional services specified in this work assignment.
4. Time for completion. CONSULTANT shall complete the professional design services specified in this Work Assignment within one hundred fifty (150) days from the date of this work assignment, and will provide the bidding and construction phase services in accordance with the Project Schedule as set forth in Attachment A to this Work Assignment.

IN WITNESS WHEREOF, the parties have executed this work assignment on the ____ day of _____, 2015.

KING ENGINEERING ASSOCIATES, INC.

CITY OF VENICE, FLORIDA

By: _____

Mayor

ATTEST:

City Clerk

Attachment A
SCOPE OF SERVICES

King Engineering Associates, Inc.
Work Assignment No. 11

Reclaimed Water Distribution System Improvements

Background

The OWNER's Reclaimed Water Master Plan identifies a number of potential projects aimed at looping the existing reuse system and improve service. Four of the proposed projects are as follows:

1. R-303: Extension of a new 8" reclaimed water main approximately 1,120 LF from the existing reclaimed water main at the intersection of Ridgewood Avenue and Cherry Parkway to the intersection of Cherry Parkway and Cypress Avenue. At East Venice Avenue, the line will be shallow ($\pm 3'$ deep) in the median to allow for connection to the median irrigation system. This extension will serve the commercial properties on both corners on the north side of East Venice Avenue.
2. R-100: Extension of a new 12" reclaimed water main approximately 1,310 LF from the existing 8" line at the intersection of Albee Farm Road and West Lucaya Avenue south to the relocated reclaimed water main on the east side of US-41 Bypass.
3. R-313: Extension of a new 8" reclaimed water main approximately 500 LF from the existing 24" line at the intersection of East Venice Avenue and Capri Isles Boulevard and north to the existing 8" line at the intersection of Ridgewood Avenue and Capri Isles Boulevard.
4. R-301: Evaluation of the integrity of the abandoned $\pm 5,700$ LF force main that runs along Matanzas Street east to Armada Road, north to Madrid Avenue, east to Park Boulevard, south to Alhambra Road, east and terminating at Harbor Drive; and the abandoned $\pm 1,800$ LF force main that runs along Granada Avenue from Park Boulevard to the lift station at The Esplanade. Results of this evaluation will be used to determine if these lines can be used as reclaimed water mains in the future.
5. Reclaimed Water Air Release Valve (ARV) Replacements – There are five (5) reclaimed water ARV's that need to be replaced at the following locations: Intersection of Pinebrook and S Lake Ct; intersection of Bird Bay W and Bird Bay Circle; on Bird Bay Way; in Bird Bay Dr South northbound lane across from 622 Bird Bay Dr South; and Northbound lane on Bird Bay Dr South 100' south of Bird Bay Dr West.
6. Reclaimed Water Valve Replacements – Several valves in the reclaimed water system are no longer operational and will be replaced as part of the project. Their locations are: 1221 Pinebrook Way, 1402 Glen Eagles Drive, 1587 Jasper Court, 1221 Cypress

Avenue, 113 Homepark Road, 124 Warfield Avenue, 700 Fawn View Lane and 652 Misty Pine Drive.

This Work Assignment authorizes the CONSULTANT to provide design, permitting, bidding and construction management services for construction of the reclaimed water mains, evaluation of the abandoned force mains and replacement of the ARVs and inoperable valves.

Scope of Services:

Task 1 – Design Project Management

CONSULTANT will provide the following services, extending throughout the design of the project:

- Coordinate the activities and communications of the CONSULTANT's staff and subconsultants with those of the City.
- Develop and maintain the project design schedule.
- Develop monthly invoices.
- Review and internally log and file project correspondence.
- Attend a kickoff meeting with the City.
- Initiate and execute the Quality Control process.

Task 2- Field Investigations

Task 2.1 – Door Hanger

Prior to beginning the field efforts, CONSULTANT will revise the door hanger used for the water main replacement program to notify the residents of the impending work. The door hanger will be submitted to the City for review and approval prior to its use. The door hanger will be placed on residents' doors no later than 48 hours before the start of either the survey or geotechnical testing effort, whichever is first.

Task 2.2- Survey

CONSULTANT will perform topographic survey services extending from right-of-way line to right-of-way line, and across affected intersections, on the streets with proposed new reclaimed water mains. The survey on Capri Isles Boulevard will be from the west right-of-way to the centerline of the road. The surveys will record the following above ground features:

- Edge of pavement;
- Curbs, driveways and sidewalks;
- Power poles;
- Above ground utilities;
- Manhole rims, inverts and pipe sizes;
- Trees and their approximate driplines.

The survey will be tied to State Plane Coordinates and an arbitrary vertical datum. The survey effort does not include right-of-way surveys, however, readily available property corners

along the fronts of the properties will be located for reference.

Task 2.3- Field Visits

CONSULTANT will visit the sites to evaluate potential new reclaimed water main alignments prior to the survey effort. A second field visit will be made to supplement the information collected by survey.

Task 2.4- Geotechnical Investigation

Through the use of a subconsultant, CONSULTANT will obtain a total of six (6) standard penetration test (SPT) borings to a depth of 10 feet along the proposed reclaimed water main routes (two on Cherry Parkway, three on Albee Farm Road and one on Capri Isles Boulevard) plus two (2) SPTs to a depth of 20 feet at each of the two crossings of E. Venice Avenue (total of ten borings).

Results of the geotechnical testing will be summarized in a signed and sealed geotechnical report outlining:

- Boring location plan;
- Borings logs with soil stratification based on visual soil classification;
- Encountered soil and bedrock conditions;
- Summarized laboratory data;
- Groundwater levels observed during drilling;
- Geotechnical recommendations.

Task 3 – Design

Task 3.1 – Engineering Evaluations

CONSULTANT will perform the following evaluations as part of the design of the project:

3.1.1 -HDD calculations to determine the feasibility of HDD and/or the required drill depths or special requirements.

3.1.2 -Determination of existing utilities along the proposed new reclaimed water main alignments. CONSULTANT will call in a Florida One Call Design Ticket and send draft plans to the affected utilities to obtain the location of their existing facilities. This information will be combined with the visual observation of markings placed by utilities prior to the geotechnical field effort.

Task 3.2 - Drawings

CONSULTANT will develop design drawings for use in obtaining bids, permitting and constructing the project. Drawings sheets are anticipated to include:

- Cover
- Notes, Legend and Abbreviations
- Stormwater Pollution Prevention Plan
- Overall Project Site Plan and Key Map
- Force Main Integrity Testing Overall Site Plan
- ARV Replacement Overall Location Map
- Valve Replacement Overall Location Map
- Proposed New Reclaimed Water Main Plan – Cherry Parkway (2 panels)

- Proposed New Reclaimed Water Main Plan – Albee Farm Road (3 panels)
- Proposed New Reclaimed Water Main Plan – Capri Isles Blvd. (1 panel)
- Special Crossings and Details, including applicable City standard utility details (3 sheets)
- ARV and Valve Replacement Details
- Maintenance of Traffic (3 sheets)

Drawings will be developed in AutoCAD and will be half-size (11" x 17" sheets) at a 1"=30' scale, plan view only. Property lines will be shown based on the Sarasota County Property Appraiser's maps and, as such, will be approximate. Aerials will be Google aerials.

Task 3.3 Specifications

CONSULTANT will develop technical specifications (Divisions 1 and higher) for the project including a Bid Tabulation. The City will provide its standard Division 0 front end documents.

Task 3.4 Abandoned Force Mains Pressure Testing

CONSULTANT will develop a procedure for flushing, purging trapped air and pressure testing the abandoned force mains. The procedure and a specification for pressure testing the abandoned mains will be included in the project's specifications for execution by the contractor as part of the reclaimed water main construction project.

Task 3.5 Review Submittals

Drawings and specifications will be submitted for the City's review at the 50% and 100% completions levels. The main purpose of the 50% submittal will be to agree on the reclaimed water main alignments. The City will have two weeks to review the submittals after which a meeting will be held to review the City's comments.

Task 3.6 Opinions of Probable Construction Cost

CONSULTANT will develop an opinion of probable construction cost for the project at the 50%, and 100% completion levels. The 50% opinion will be a Class 2 cost estimate and the 100% opinion will be a Class 1 cost estimate as defined by American Association of Cost Engineer's (AACE). The 100% opinion will be summarized in the same format as the Bid Form.

Task 4 – Permitting

Task 4.1 Sarasota County Right-of-Way Permits

CONSULTANT will prepare Sarasota County Right-of-Way Permit applications for the work on Albee Farm Road, the crossings of E. Venice Avenue at Cherry Parkway and Capri Isles Boulevard and for the ARV replacement on Pinebrook Road. CONSULTANT will respond to questions necessary to obtain approval for the permits. There is no application fee associated with these permits.

Task 5 – Bid Services

CONSULTANT will provide the following services during advertisement and bidding of the project by the City:

- 5.1 Attend a Pre-Bid Conference to meet with prospective bidders and discuss the project.
- 5.2 Provide written clarifications and prepare Addenda responding to questions raised at the prebid meeting and sent in by bidders.
- 5.3 Review the bids, develop a Bid Tabulation spreadsheet, call the low bidder's references and submit a recommendation of award.

Task 6 – Services During Construction

CONSULTANT will provide construction management and engineering services over an anticipated twenty six (26) week construction contract. Specific services will include:

- 6.1 Prepare for, attend and moderate a preconstruction meeting with the contractor, City and affected utility representatives. CONSULTANT will prepare meeting minutes.
- 6.2 Logging and reviewing the contractor's submittals. Fees assume a total of twenty (20) shop drawings. Of the twenty, 10 will be resubmitted for a second review. The specifications will require that the Contractor pay for three or more reviews. It is assumed that the Contractor will submit his Shop Drawings electronically. A preliminary list of anticipated submittals is provided in Table 1.
- 6.3 Reviewing the Contractor's initial schedule and monthly schedule updates.
- 6.4 Attendance at and moderation of up to six (6) construction progress meetings/site visits by CONSULTANT's Project Manager and/or Project Engineer. CONSULTANT will prepare and distribute an agenda and minutes.
- 6.5 Providing site visits by CONSULTANT's Project Engineer to address questions raised during construction of the reclaimed water mains. A total of 12 hours is budgeted for this effort.
- 6.6 Responding to the Contractor's Requests for Information (RFIs) as reasonably necessary.
- 6.7 Reviewing the Contractor's reasonably necessary proposals and assisting the City with preparing and issuing Interim Field Change Agreements (IFCAs) and with and negotiating and preparing one Change Order.
- 6.8 Reviewing and approving the Contractor's Pay Applications.
- 6.9 Reviewing and logging compaction and materials test reports.
- 6.10 Miscellaneous assistance and site visits during pressure testing of the abandoned force mains. A total of twenty four (24) hours is budgeted for this effort.
- 6.11 Preparing AutoCAD Record Drawings based on red-lined As-Built drawing markups and survey files provided by the Contractor.

- 6.12 Developing ESRI GIS data files for the constructed project based on data provided by the Contractor. See Assumptions below for GIS file requirements.
- 6.13 Reviewing of up to six (6) sets of pressure test results assuming one on Albee Farm Road, three on Cherry Parkway and two on Capri Isles Blvd.
- 6.14 Providing assistance with final closeout consisting of:
 - Performing a Substantial Completion walkthrough and developing a punchlist;
 - Providing the City with signed and sealed Record Drawings;
 - Providing the City with Record Drawings in PDF and AutoCAD formats;
- 6.15 Providing general Project Management during construction including:
 - Maintaining routine contact and discussing construction progress and project developments with the City's inspector;
 - Reviewing the City Inspector's Daily Reports;
 - Miscellaneous phone calls and emails and coordination with the City's Project Manager and other City staff, including assisting the City's Project Manager with miscellaneous minor project related questions and general consultation with respect to the Contractor's contractual obligations;
 - Miscellaneous phone calls and emails with the Contractor's staff required to respond to minor questions not requiring formal RFIs;
 - Document control including maintaining files of correspondence, meeting minutes, Contract Documents, Change Orders, Field Orders, RFIs, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, progress reports, Shop Drawing and Sample submittals, regulatory correspondence and other Project-related documents.

Deliverables

- Three (3) signed and sealed copies of the final Geotechnical Report.
- Five (5) half-size drawing sets, technical specifications and an Opinion of Probable Construction cost at the 50% completion level. The submittal will also be provided in PDF format by email or FTP site.
- Five (5) half-size drawing sets, technical specifications and an Opinion of Probable Construction cost at the 100% completion level. The submittal will also be provided in PDF format by email or FTP site.
- Five (5) half-size signed and sealed copies of the Bid Document drawings along with a CD containing the drawings in PDF and AutoCAD format, the technical specifications in PDF and Word format, the Bid Form and the final Engineer's Opinion of Probable Construction Cost in PDF format.
- AutoCAD drawing files and PDFs of the Record Drawings.
- One hardcopy of all permit application packages and RAI submittals.

Compensation

The proposal fee for the above scope of work will be charged as a Lump Sum and will be invoiced monthly based on percentage completion of each task. The following table shows the fee by task.

This Work Assignment includes an Owner's Allowance of \$15,000 for unforeseen tasks required to complete the project, which will be used only with the written approval of the City. A scope description and fee breakdown will be provided to the City for any proposed use of the Owner's Allowance.

Fee Proposal			
Task	Description	Basis	Fee
1	Project Management	LS	\$5,175
2	Field Investigations	LS	\$23,923
3	Design	LS	\$34,265
4	Permitting	LS	\$3,200
5	Bid Services	LS	\$4,685
6	Services During Construction	LS	\$41,070
	Owner's Allowance		\$15,000
		Total	\$127,318

Time of Completion

The project schedule is outlined below. The schedule provides time from start to completion of each task in calendar days from notice to proceed. The notice to proceed will be effective the date this Work Assignment is approved by the City.

Project Schedule (Calendar Days from Date of Work Assignment)			
Task	Description	Start	Complete
1	Project Management	0	150
2	Field Investigations	0	45
3	50% Design	0	90
	100% Design	90	150
4	Permitting	90	150
5	Bidding Services	Per City Schedule	
6	Construction Phase Services	180 days from NTP	

Assumptions

- The OWNER will distribute the Bid Documents and Addenda and will prepare and execute final Agreements, Contract Documents and insurance/bonding documentation with the selected low bidder.
- The Contractor will be responsible for obtaining all Building Department permits and inspections.
- Permitting of the reclaimed water mains with the FDEP is not required.
- Other than Pinebrook Road, which is a County Road, permitting is not necessary for the ARV and valve replacements.
- Survey will not be obtained at the ARV and valve replacement locations.
- The OWNER will provide a part-time inspector on the project who will provide the CONSULTANT with a copy of his daily reports weekly. The Inspector and the OWNER's Project Manager will be responsible for reviewing and approving the quantities in Pay Applications; witnessing pressure tests, providing test reports and confirming that items listed on the Substantial Completion punchlist are completed.
- GIS deliverables will be provided at the end of the project and will be in the ESRI Geodatabase format, version 10.x or higher. Data will be projected in State Plane Florida West HARN, NAD1983 datum, linear units in feet. All valves, hydrants, fittings, blowoffs, air release valves, service connections, meter boxes, along with the top of the new water mains at 100 foot intervals, will be GPS located to sub-foot (survey) accuracy by the Contractor and provided to the ENGINEER for mapping into a shape file for delivery to the OWNER. Coordinate data will be field collected with autonomous GPS readings and subsequently differentially corrected via real time corrections. The shape files will be submitted to the OWNER on CD.

In addition to the location data parameters noted above, additional documentation data collected and provided in the database will include:

Pipe:	Facility ID number, diameter, material, manufacturer;
Fittings:	Facility ID number, type (i.e. tee, 90° bend, etc.) diameter, material, manufacturer;
Valves:	Facility ID number, diameter, type, manufacturer, function, swing tie A, swing tie B, turns to close;
Hydrants:	Facility ID number, manufacturer;
Services Saddles:	Facility ID number; size, manufacturer.

Table 1

Preliminary List of Contractor's Submittals

1	Emergency Contacts and Misc.
2	Hurricane Preparedness Plan
3	Construction Phasing Plan
4	Schedule of Values
5	Pre-Construction Video
6	Maintenance of Traffic
7	Project Signs
8	Horizontal Direction Drilling Plan
9	Dewatering Plan
10	Erosion Control
11	Asphalt Restoration Materials
12	Concrete
13	Pipe and Fittings
14	Valves and Appurtenances
15	Tapping Sleeves
16	Force Main Flushing and Pressure Testing Plan