

086-19 Appendix A Scope of Services
Construction Manager At Risk (CMAR) Services for the Buckman Biosolids Conversion Projects and UV Disinfection

The CM will provide the following preconstruction- and construction-phase services.

1. PRECONSTRUCTION PHASE SERVICES

Preconstruction-phase services will include:

- a. Provide a Project Manager, all Key Personnel (as defined in section 1.7.3.2 of the RFP) and all other associated personnel necessary to fully meet the CM's obligations for preconstruction services;
- b. Within 30 days of the notice to proceed the preconstruction phase, provide a construction management plan that includes approach to safety, quality, cost, schedule, project organization during both preconstruction and construction phases, packaging, and subcontractor management plan;
- c. Consult with JEA and the Design Engineer to confirm understanding on all aspects of the planning, design, and proposed construction, as well as drawings and specifications;
- d. Provide input as requested regarding information on material availability, recommendations on equipment and/or packaging to advance construction, and independent quantity calculations to verify quantities specified by Design Engineer;
- e. Provide list of additional details that would be needed to complete the project in the allotted time or to accelerate aspects of the work;
- f. Develop independent detailed construction cost estimates, critical path method schedules and cash flow forecasts for final design;
- g. Provide monthly project planning and scheduling reports to optimize the sequencing of constructing the project;
- h. Identify long-lead equipment procurement needs and submit a report to JEA;
- i. Make recommendations to JEA regarding the division of the Work to facilitate bids and proposals for the major elements of the Work;
- j. Advise JEA regarding ways to gain efficiency in Project delivery;
- k. Provide complete, detailed, written GMP, including line-item cost breakdowns with conditions, assumptions, and contingencies;
- l. Provide a Project risk management plan;
- m. Provide a construction emergency response plan and site safety plan;
- n. Develop, implement, and maintain a quality management plan that ensures conformance to the project design and to every section of the specifications;
- o. Develop a QC program to ensure continuing attention to the production and installation of error-free work;
- p. Provide an environmental management plan detailing programs for a storm water pollution prevention plan and handling other environmental issues (dust, on-site chemicals and fuel, etc.) required to comply with permits and regulations applicable to the Project;
- q. Schedule all Project construction-related activities;
- r. Identify work that the Proposer intends to self-perform;
- s. Identify and recommend which work, if any, should be procured through value- based competitive selections, in lieu of low-bid selection;
- t. Participate in one Project kick-off meeting for preconstruction-phase services;
- u. Participate in up to 5 additional meetings or workshops with the Design Engineer, JEA or others as needed;
- v. If requested by the Design Engineer and/or JEA, provide value engineering input in order to develop cost savings and efficiencies to reduce the GMP;
- w. Identify opportunities to utilize the JEA's Direct Purchase Policy subject to Fla. Stat. Section 212.08(6).
- x. Act as a resource to JEA and the Design Engineer. The CMAR will be available to answer questions and assist with analyzing each option or idea that the team develops. Work with the 30%, 60%, 90% and 100% design documents to provide review input, budgets, schedules and the GMP.
 - i. 60%, 90% and 100% Design Review and Budget
 - 1) Review input - Perform a detailed review of the design documents. Tasks will include review of constructability, identify value engineering opportunities, alternative to site layout and processes.
 - 2) Budget development - Based on the design documents, prepare a detailed budget of the anticipated construction cost.
 - 3) Quality Control - Perform a thorough review of the documents to eliminate conflicts.

- 4) Long lead items - At 90% design, analyze the scope for any potential long lead items that could impact the schedule. Solicit pricing from the vendors, negotiate scope and terms/conditions, and prepare purchase order terms, review submittals and track deliveries.
- y. Scheduling Services - For 60%, 90% and 100% design, prepare and update a detailed schedule to reflect all the activities necessary to complete the construction of the project. The schedule will include permit and submittal activities and activities from other entities that will have involvement with the project. Include the required delivery dates for any owner direct purchase items.
- z. Bidding/GMP Preparation - The CMAR will develop bid packages and bid documents based on the 100% complete contract documents for all trades unless otherwise agreed by JEA. The CMAR will encourage qualified local subcontractor participation. The CMAR will advertise/solicit qualified bids for the various bid packages and obtain a minimum of three quantified bids for each bid package. The CMAR will: hold pre-bid conference(s) with the subcontractors and suppliers to discuss the documents, answer written questions about the construction plans and technical specifications; and assist in preparing addenda. Changes to the drawings and specifications will be described in the addendum and prepared by the Design Engineer. The CMAR will review bids for completeness and conformance with bidding documents. The CMAR will prepare (a) GMP for JEA's review and negotiation. All bid openings will be held at JEA offices.
- aa. Deliverables: The CMAR shall provide the following for each project:
 - i. Written review comments for the 60%, 90%, and 100% documents for each project.
 - ii. Cost estimate based on the 60% and 90% documents for each project.
 - iii. Construction Schedules based on the 60%, 90% and 100% documents for each project.
 - iv. Guaranteed Maximum Price (GMP) for construction of each project.

2. CONSTRUCTION-PHASE SERVICES

Construction-phase services will include the following:

- a. Construct each Project consistent with all relevant federal, state, county, and JEA laws and codes;
- b. Discuss each Project with subcontractors and material suppliers to determine workloads, bonding capacity, and worker/mechanic availability;
- c. Review rules for how and when a CM can self-perform some elements of a project with its own forces and systems for selection;
- d. Prepare the bids/proposals packages for the elements of the Work incorporating the requirements of the Contract;
- e. Provide management of and assistance for the JEA's Direct Purchase Policy subject to Fla. Stat. Section 212.08(6) as requested by JEA to allow avoidance of payment of sales tax on certain high value building materials and supplies;
- f. Develop and submit recommendations for awarding the subcontracts to construct each Project;
- g. Participate in up to one (1) Project kick-off meetings for construction-phase services for each project;
- h. Perform the construction portion of the Work in strict accordance with all applicable Contract Documents;
- i. Coordinate and manage the Work that includes all required appurtenances, necessary site improvements, and all other work required to make a complete and operable system within the GMP and the allowable contract time;
- j. Coordinate with various local and state agencies, as necessary and/or requested by JEA;
- k. Arrange for procurement of materials and equipment;
- l. Manage all procurement and construction-related subcontracts while meeting the JEA's requirements for procurement of subcontractor and supplier bids or proposals. This effort includes inspecting the Work performed by subcontractors to ensure conformance with the Contract Documents;
- m. Monitor and maintain quality controls over shop drawings, equipment and materials, implementation, and Work;
- n. Provide performance, payment, and any other security for performance as described in bonds as described in Attachment C of this RFP;
- o. Provide insurance for the preconstruction and construction phases as described in Attachment C of this RFP;
- p. Implement the construction site safety plan to provide a safe working site for the Project, maintain, update and implement as needed for the emergency response plan;
- q. Conduct a meeting with all the contractors and sub-contractors performing major elements of the Work prior to the start of their activities;

- r. Obtain any necessary construction permits;
- s. Manage storm water runoff and dust;
- t. Establish and implement procedures to track, expedite and process all submittals, change orders, and requests for information;
- u. Engage and oversee the activities of a third party materials testing laboratory;
- v. Review and process shop drawings and other documents for submittal to Design Engineer;
- w. Establish a critical path method schedule for the Project, monitor and update the construction schedule monthly, prepare two-week look ahead work schedules consistent with overall schedule;
- x. Review and process all pay applications from subcontractors;
- y. Conduct monthly progress meetings with the on-site trade foremen or superintendents;
- z. Attend monthly meetings with the Design Engineer and JEA staff and provide written monthly progress report and updated schedule;
- aa. Maintain current hard copies of project as-built drawings, including all subcontracted work, and submit monthly in hard copy, PDF and electronic format, as specified by the Design Engineer;
- bb. Develop, implement and manage a commissioning, start-up and testing plan necessary for JEA to accept the Project as completed and ready to use;
- cc. Expedite and coordinate delivery, storage, security and installation of direct purchased material and equipment, as applicable;
- dd. Supervise/manage the warranties provided to JEA for the equipment and construction work;
- ee. Receive warranty work items from the subcontractors and vendors, and provide same to JEA upon final completion of the Project, or at a date negotiated by the parties;
- ff. Conduct a walk-through with JEA and Design Engineer to ensure that JEA, Design Engineer, and CM are in agreement that the construction-phase work is complete before the one-year warranty goes into effect;
- gg. Implement close-out procedures necessary for JEA to determine the Project has reached final completion;
- hh. Complete all construction-phase services and Work, including performance testing; and
- ii. Prepare a final report on all construction costs.

3. Roles and Responsibilities

JEA: JEA, assisted by its Design Engineer (Carollo Engineers, Inc.), will cooperate with the CM and will fulfill its responsibilities in a timely manner to facilitate the CM's timely and efficient performance of services. JEA responsibilities generally include:

- a. Reviewing preconstruction-phase deliverables and submittals and providing comments to CM.
- b. Furnishing existing studies and providing data and information regarding the Project, including record drawings, preliminary studies, etc.
- c. Providing adequate funding for Project.
- d. Providing access to the Project site and any necessary easements.
- e. Obtaining certain approvals and permits for which the JEA is responsible and assist CM in obtaining governmental approvals and permits for which it is responsible.
- f. Providing or assisting in providing necessary data and inputs (e.g., current biosolids quantities, characteristics, etc.) for Project startup and performance testing.

CM: The CM will cooperate with JEA and Design Engineer and will provide the preconstruction phase services and construction phase services necessary to complete the scope of projects as specified in this RFP. CM responsibilities generally include:

- Delivering the constructed work.
- Managing Project schedules.
- Supervising subcontractors and CM personnel.
- Obtaining necessary governmental approvals and permits.
- Performing risk management and mitigation activities.
- Maintaining Project security and safety as necessary.
- Conducting acceptance testing.
- Developing and implement quality-management (including quality control and quality assurance) procedures.
- Overseeing material testing during construction by a third party laboratory.
- Establishing and maintain change order management plan.

- Developing and implement Project health and safety practices.

Design Engineer: The Design Engineer will prepare all design documents, work collaboratively with the JEA and the CM, and provide services during construction to ensure that the Projects as constructed conforms to the design intent, Project technical requirements, and JEA's objectives. The scope of services for the Design Engineer has been provided in Attachment F (Additional Project Background Documents) of the RFP.