

123-18 Appendix A - Technical Specifications
Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

1. BACKGROUND

- 1.1. JEA requires the services of a Contractor for removal, transportation and disposal of sand /grit /pellets and/or sludge cake (mixed biosolids) from the Buckman Water Reclamation Facility (WRF) located at 2400 Talleyrand Ave., Jacksonville, Florida 32206 (Exhibit A provides analytical results for sample(s) of the material to be removed, transported and disposed of.). The material will be transported to a Class I permitted landfill. This work would be on a frequency determined by Buckman WRF plant personnel and coordinated between plant personnel and awarded company. JEA personnel will load the trucks as needed. **It is understood that the quantities shown are estimated and are to be used for award of bids only. No minimum or maximum quantities are being guaranteed for any of the work shown.**
- 1.2. The Primary scope of services will be the removal, transportation and disposal of sand, grit, pellets and sludge cake.
- 1.3. Additionally, JEA is requesting an additional option, for an alternate disposal method for materials that are deposited on the pad, which would not involve taking the materials to the Chesser Island, Class I landfill. Note, any proposed alternate method requires JEA's Environmental Department approval prior to execution of this option (Option 1).
- 1.4. Additionally, JEA is requesting an emergency dewatering service option for JEA's centrifuge influent, in the even that JEA's centrifuges are taking down by some unforeseen event. The emergency dewatering service option would be on a callout basis only and is expected to last less than ten (10) days per event.

2. PRIMARY SCOPE

- 2.1. The removal and transportation would be on a frequency determined by Buckman WRF plant personnel and coordinated between plant personnel and the awarded company. The sand/grit/pellets and sludge cake (mixed biosolids) may be malodorous, but JEA will guarantee to maintain a minimum eighteen percent (18%) solids content in the waste stream. The transportation and disposal is to be handled as follows:
 - 2.1.1. Transport and dispose of grit/sand/cake/pellets from Buckman WRF on a frequency determined by Buckman WRF plant personnel and coordinated between plant personnel and the awarded Contractor of approximately 385 tons/week and an annual average of approximately twenty-thousand (20,000) tons/year. Note: Estimates are based upon amounts budgeted and spent this fiscal year. Potential periodic equipment/plant shutdowns throughout the year could create approximately two-hundred (200) tons/day of grit/sand/pellets and/or sludge cake. Buckman WRF plant personnel will coordinate the frequency of required trucks with the awarded Contractor. Note: JEA is currently limited by the Class I landfill, Chesser Island to five (5), twenty ton loads per day (100 tons/day total).
 - 2.1.2. The landfill scale will be utilized for total tonnage transported and for billing purposes to JEA. Company shall submit calibration verification to JEA as requested. All trucks will also be weighed in and out on Buckman's on-site truck scale. Drivers must record information accurately in the scale log.
 - 2.1.3. The Contractor must respond within one (1) business day of notification with the agreed upon number of trucks and equipment to complete the transport of the accumulated grit, sand, pellets, and sludge cake.
- 2.2. Buckman WRF Manager contact Michael Durrett at (904) 665-8319.

3. HOURS

- 3.1. The first truck should be loaded no earlier than 7:00 AM and the last truck must be loaded no later than 3:30 PM, Monday through Saturday, without leakage or spillage from the trucks. The material will need to be properly manifested by the hauling contractor and copies provided to JEA. JEA will pay appropriate demurrage rate if trucks are not loaded within one (1) hour from plant entry. Trucks will not be able to enter the plant until 7:00 AM, Monday through Saturday.

4. SPILL RESPONSE

- 4.1. A spill response plan shall be submitted within two (2) business days of being awarded the contract that must include, but is not limited to, the following provisions:
 - The Contractor shall be responsible for responding within one hour of a spill involving its own or subcontracted vehicles and/or personnel.
 - The Contractor must have equipment and personnel on site at the site of the spill within one hour and must commence cleanup operations within one hour of the spill at the Contractor's cost.

123-18 Appendix A - Technical Specifications
Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

- 4.2. Any spill will be considered may be cause for termination of the contract. Care must be taken when entering and leaving the plant property through the Talleyrand Gate. All materials will be loaded onto trucks by JEA Buckman WRF plant personnel.

5. REPAIR OF WORK AREAS

- 5.1. The Contractor shall replace with new or repair any damaged JEA equipment or structures immediately to the satisfaction of JEA. The intent of this paragraph is to ensure the safe and continuous operations of JEA processes.

6. ACCESS TO CONTRACTOR'S OPERATING RECORDS

- 6.1. The Contractor shall provide immediate access to its operating records as required by JEA and applicable regulatory agencies.

7. FACILITY LOCATIONS

- 7.1. Services rendered by the Contractor will be conducted at the Buckman WRF located at 2400 Talleyrand Ave, Jacksonville, FL 32206. All trucks must enter and exit through the Talleyrand gate. No entry is permitted through the Buckman Street Gate.

8. EQUIPMENT REQUIREMENT

- 8.1. Contractor must have sufficient trucks and equipment (i.e., bed liners, etc.) available to remove three-hundred (300) tons of grit, sand, pellets and sludge cake per day. Trucks should have a minimum load capacity of twenty-five (25) tons. All dump trucks must be equipped with externally mounted, manually operated clamps to ensure tailgate remains closed at all times. Ability to pick-up, transport, dump and return a twenty (20) yard roll off dumpster. All drivers must have the proper licensures.

9. DEMURRAGE

- 9.1. The bidder will quote a demurrage rate per truck per hour on the bid form.

10. LIQUIDATED DAMAGES

- 10.1. The Contractor is required respond within one (1) business day of notification with the agreed upon number of trucks and equipment to complete the transport of the accumulated grit, sand, pellets, and sludge cake, excluding Sundays and holidays, after being notified by the Buckman WRF plant personnel there is transport need. If the Contractor fails to meet the time limits described herein, Liquidated Damages shall be assessed in accordance with the following:
- 10.1.1. Beginning three (3) months after Contract execution, if the Contractor fails to meet requested timeframes, excluding Sundays and Holidays, the Contractor shall be considered late and there will be a ten percent (10%) reduction of the total cost of the invoice starting on the second (2nd) business day of no show. Note: Exceptions may be considered by JEA on a case by case basis.
- 10.2. The Contractor understands and agrees that said reduction is to be paid not as a penalty, but as compensation to JEA as fixed and reasonable liquidated damages for losses that JEA will suffer because of such late performance, whether through increased administrative and engineering costs, interference with JEA's normal operations, other tangible and intangible costs, or otherwise, which costs will be impossible or impractical to measure or ascertain with any reasonable specificity.
- 10.3. Liquidated damages may, at JEA's sole discretion, be deducted from any monies held by JEA that are otherwise payable to the Contractor. The Contractor's responsibility for liquidated damages shall in no way relieve the Vendor of any other obligations under the Contract.

123-18 Appendix A - Technical Specifications
Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

11. OPTION 1: ALTERNATE DISPOSAL OPTION

- 11.1. The bidder will provide a plan and pricing for their own disposal solutions. The bidder will provide the service of hauling the sand/grit/pellets and sludge cake (mixed biosolids) from Buckman WRF and then properly and responsibly disposing of it. The price is to be presented as a unit per ton all-inclusive quote for hauling, fuel, disposal, etc. The bidder is to include the daily load limits/maximums, if applicable, within the disposal plan. Please note: Chesser Island Landfill has a daily maximum of five (5) loads for JEA's current biosolid material profile. JEA is interested in seeing pricing and plans for alternate means of biosolid disposal. JEA is not obligated to elect the bidder's alternate disposal option, even if the unit per ton cost is less expensive.
- 11.2. Any Alternate Disposal Solution will require JEA's Environmental Engineering Department approval. JEA will make sure JEA and the Company are appropriately permitted to perform the alternate service.

12. OPTION 2: BUCKMAN WRF BIOSOLIDS EMERGENCY DEWATERING AND DISPOSAL

12.1. GENERAL DESCRIPTION OF WORK

- 12.1.1. The biosolids emergency dewatering and disposal work includes the installation and operation of a temporary biosolids dewatering system at the Buckman WRF and disposal of the dewatered biosolids at an approved landfill. The Contractor shall supply all labor, materials, etc. to supply, install and operate a temporary dewatering system and supply all labor and transportation and other related costs to dispose of the dewatered biosolids at an approved landfill.
- 12.1.2. The temporary dewatering work duration is a minimum of ten (10) days but could extend for an undetermined amount of time depending on conditions at the biosolids processing facility.

12.2. COMPLIANCE WITH REGULATIONS

- 12.2.1. The Contractor shall comply with all Florida Department of Environmental Protection requirements and all other required federal, state and local laws and regulations.

12.3. PROJECT MOBILIZATION/DEMobilIZATION

- 12.3.1. The Contractor for mobilization/demobilization shall include all transportation, loading and unloading, set up, equipment removal and cleanup costs. The Contractor shall coordinate these activities with JEA staff. Staging areas are available for Contractor use for the duration of this project. The staging areas must be returned to their original state to the satisfaction of JEA after demobilization and clean up. Staging area location information will be given during the prebid meeting.
- 12.3.2. The Contractor shall mobilize within 24 hours of notification and place in operation their dewatering equipment within 72 hours of notification. If contractor fails to meet these requirements a deduction in the payment for biosolids dewatered will be made equal to the amount of the cost per dry ton/hour for each hour past the required amount of time referenced above in accordance with the calculated cost per dry ton/hour based on the required minimum production of two (2) dry tons/hour dewatered cake required within these specifications.

12.4. BIOSOLIDS DEWATERING

- 12.4.1. The Contractor shall supply and install a temporary biosolids dewatering system, including chemicals and all costs incidental to the successful operation and maintenance of the dewatering process, shall be included, inclusive of necessary personnel, equipment, and facilities, other than that provided by JEA as specifically stated in these specifications.
- 12.4.2. The Contractor shall dewater the JEA's biosolids to a minimum of 20% total solids (TS), or greater. If the minimum TS value is not met, the Contractor shall immediately establish the necessary steps to achieve the minimum Contract value. JEA reserves the right to withhold payment for loads that do not meet the minimum TS requirement. A sample shall be collected from each truckload of dewatered biosolids prior to hauling offsite. The sample shall be used to verify the TS percentage within each truckload. Every sample shall be a composite sample made up of a minimum of three (3) grab samples from that truckload. These samples shall be collected by the Contractor. Samples shall be collected during the truck loading process in a manner approved by JEA and shall be representative of the material leaving the dewatering process or being stockpiled on the site. The Contractor shall contract with a certified laboratory to perform the TS testing. Contractor shall

123-18 Appendix A - Technical Specifications
Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

provide the TS data to JEA within 48 hours of sample collection. For verification purposes, JEA may take a split-sample of any collected composite samples and test them for TS.

- 12.4.3. The filtrate discharged from the dewatering equipment shall contain less than 1000 mg/l Total Suspended Solids (TSS).

12.5. TEMPORARY UTILITIES

- 12.5.1. The Contractor is required to supply the materials and to make all necessary connections to provide power, water, drains, etc. for the operation of the temporary dewatering equipment supplied by the Contractor. The Contractor shall supply necessary valves, piping, and fitting to connect from the existing dewatering feed system to the temporary dewatering system. Temporary connections to existing systems for the temporary dewatering system will be at locations determined by JEA. The Contractor shall supply a free standing NEMA 4X panel with breakers to feed his equipment. Temporary power cables from the panel to the Contractor's equipment shall be supplied and installed by the Contractor. Temporary power cables will be supplied and installed by the Contractor from JEA installed temporary power disconnect switches, from the ground floor motor control center or temporary generators supplied by JEA to the Contractor's supplied panel and shall be protected from possible damage.

12.6. TEMPORARY DEWATERING EQUIPMENT

- 12.6.1. The Contractor shall supply and install a temporary dewatering system capable of dewatering digested biosolids to a minimum of 20% dry solids with a capacity of 2.0 dry tons per hour of dewatered biosolids.
- 12.6.2. The Contractor shall furnish all required pumping, piping, and related appurtenances to convey the liquid stream from the dewatering equipment to the JEA directed disposal point.
- 12.6.3. All biosolids dewatering equipment filtrate/centrate and wash down water must be returned to appropriate location at the direction of JEA. The Contractor shall provide and install all necessary pumps, fittings, valves, and piping to convey the filtrate/centrate discharge and wash water to the appropriate plant locations.

12.7. BIOSOLIDS DISPOSAL

- 12.7.1. For this emergency work, JEA will have the emergency dewatering contractor take the biosolids materials to one of two locations:
- 12.7.1.1. The Pad – The emergency services contractor will move the biosolids to the pad at the Buckman WRF.
- 12.7.1.2. JEA will have the Contractor shall haul and dispose of the dewatered biosolids in an approved Class I landfill or landfills.
- 12.7.2. For offsite hauling and disposal the Contractor shall maintain records for each truck load of dewatered solids hauled from the site and submit these to JEA on a daily summary sheet with a copy of the manifest and/or disposal site scale ticket attached. The contractor shall use the truck scale at the Buckman facility for loaded and tare weights. Records shall include the total solids concentration, weight of the load, and dry tons for each truck load. The records shall be accompanied by the independent lab reports. Certification of acceptance by the receiving entity will be obtained for each load that is disposed. Copies of the certifications will be submitted with each pay request.

12.8. BIOSOLIDS QUANTITIES

- 12.8.1. The Contractor shall dewater biosolids from the existing digested biosolids storage tank. The biosolids solids from the digesters shall range from 3% to 4% TSS. The contractor shall dewater to a minimum of 20% dry solids. The daily amount of biosolids required to be dewatered is 48 dry tons (240 wet tons at 20% dry solids). The Contractor shall supply the required polymer for dewatering based on tests performed by the Contractor. The Contractor shall supply all necessary chemicals for the dewatering operation. As a secondary dewatering requirement the Contractor may be required to dewater biosolids from the raw sludge holding tank. This tank contains a mixture of raw primary sludge and secondary sludge. The biosolids solids from the raw sludge holding tank shall range from 1.5% to 3% TSS. The contractor shall dewater to a minimum of 20% dry solids. The daily amount of biosolids required to be dewatered from the raw sludge holding tank is 60 dry tons (300 wet tons at 20% dry solids). The Contractor shall supply the required polymer for dewatering based on tests performed by the Contractor. Testing by the Contractor for determining the polymer

123-18 Appendix A - Technical Specifications
Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

types shall be performed within the first 30 days of the contract. Chemical storage shall have secondary containment to prevent spills.

12.9. BIOSOLIDS MANAGEMENT

- 12.9.1. To the maximum extent possible, the Contractor shall provide the necessary personnel, equipment, and facilities to manage dewatered biosolids within the identified staging areas (dewatering equipment, loaders, trucks, etc.). As necessary, JEA will work with the Contractor to identify other areas that can be utilized for dewatering operations, stockpiling, etc. with limited or no interruptions. The Contractor must adequately manage biosolids within those designated areas.
- 12.9.2. Dewatered biosolids may be temporarily stockpiled onsite only during times when the disposal in a landfill is not possible. The stockpiled dewatered biosolids will be placed in a designated area and in a manner determined by JEA. The stockpiled dewatered biosolids will be removed within 2 days. Erosion control measures must be provided to contain runoff. The stockpiling area will be cleaned and returned to its original condition.
- 12.9.3. Weight quantities used to calculate dry tons for Bid Item No. 2 shall be measured by a certified scale and recorded on a weight ticket. There is a truck scale at the Buckman WRF. If the onsite scale is not used or is not in working order the weight ticket must be from a certified scale. Weight tickets must be provided to JEA for all loads of dewatered biosolids that are hauled to the landfill. Adjustments may be made for total solids concentrations less than 20% as determined by JEA.
- 12.9.4. In order to ensure the minimum 20% total solids criteria is being met, the Contractor will take representative samples of the dewatered biosolids and the Contractor shall test those samples for total solids in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater" at an approved laboratory. The Contractor shall make available a split sample for analysis by JEA. A representative sample from each truckload shall be collected and analyzed for percent solids.
- 12.9.5. The Contractor shall provide scale tickets from the on-site certified truck scale or other mutually agreed upon certified weight documentation to JEA within 24 hours of weighing.

12.10. BIOSOLIDS DRY TONNAGE DETERMINATION

- 12.10.1. A. The dry tonnage of biosolids dewatered shall be determined by the following calculation:
Dry weight tonnage of dewatered biosolids produced per truckload = "DWT"
"DWT" = Dry weight of dewatered biosolids per Truck (tons) = [(certified weight of truck with solids) – (certified tare weight of truck without solids)] x (% Total Solids for truckload) /2000 lbs/ton

12.11. BIOSOLIDS HAULING

- 12.11.1. All trucks shall be well maintained and all truck beds adequately sealed to prevent the escape of any solids or liquids. Trucks shall be cleaned before leaving the Buckman WRF and it shall be the Contractor's responsibility to clean up any biosolids that are deposited on roadways either entering or leaving the Buckman WRF as a result of their activities, as quickly as is possible.
- 12.11.2. Any spills during transportation shall be the responsibility of the Contractor to clean up. JEA shall be immediately notified if a spill occurs. The Contractor shall arrange for emergency response and clean up assistance, at the Contractor's expense, if needed. Regardless of spill size, the Contractor shall take immediate action to contain all spills. For spills at the Buckman WRF, the contractor shall

123-18 Appendix A - Technical Specifications
Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

not leave the Buckman WRF site until the spill is adequately cleaned up to the satisfaction of JEA.

For all spills, the Contractor shall secure the area around the spill and:

12.11.3. Prevent public contact,

12.11.4. Divert traffic to prevent motorists from driving through the spill

12.12. TEMPORARY BARRICADES

12.12.1. Contractor shall supply and install all necessary barricades to prevent unauthorized access to the dewatering and truck loading areas and to direct traffic flow around the staging area and other related work areas. Signage will be supplied to notify non-access areas.

12.13. RESTORATION

12.13.1. After all work is completed, Contractor shall remove and dispose of all temporary piping, equipment, facilities, etc. and restore any areas affected by the temporary dewatering facilities. A final inspection will be performed to confirm that the work has been satisfactorily completed.

12.14. ADDITIONAL BIDDER QUALIFICATIONS

12.14.1. JEA may request, and company shall provide within forty eight hours, from companies bidding the Option 2 alternate services for documentation attesting to these qualifications, JEA will make an independent determination and shall be evaluated on a PASS/FAIL basis:

12.14.2. Each Bidder shall be licensed for and shall be primarily engaged in the biosolids processing providing comparable services of biosolids processing, handling, stabilization and transportation, for:

12.14.3. A minimum of five (5) consecutive years, and/or that its principal personnel (Owners, Senior Managers and Supervisors) each possess not less than five (5) years of directly related responsible supervisory business and operating experience in satisfactorily performing biosolids management services similar to that described herein. This information shall be recorded and submitted with the Bid Response on the "Related Experiences and References" form included with this IFB.

12.14.4. Each Bidder shall have biosolids processing and disposal services experience similar to those described in this Specification to a minimum of two (2) Florida references within the last five (5) years for previous similar work, with city, county, quasi-governmental and state governments. Each Bidder shall provide event details and contact information for each public agency listed as a reference. For each reference and contract, include name of each agency or company, address, contact person with telephone number, product or contract cost, type of biosolids, length and type of contract, and description of project. For each contract, identify and itemize biosolids quantities processed, handled, stabilized, transported, stored, and amount for beneficial use and/or ultimate disposal. Each Bidder shall provide at least two (2) successful project reference checks.

Appendix B - Bid Form

123-18 Grit, Waste and Sludge Disposal Management Services for Buckman Water Reclamation Facility

Submit an **original, two (2) copies and one (1) CD or thumb drive** along with other required forms in a sealed envelope to: JEA Procurement Dept., 21 W. Church St., Bid Office, Customer Center, 1st Floor, Room 002, Jacksonville, FL 32202-3139.

Company Name: _____

Company's Address _____

License Number (if applicable) _____

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

BID SECURITY REQUIREMENTS

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

TERM OF CONTRACT

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

SAMPLE REQUIREMENTS

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

SECTION 255.05, FLORIDA STATUTES CONTRACT BOND

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

QUANTITIES

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

INSURANCE REQUIREMENTS

Insurance required

PAYMENT DISCOUNTS

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

DESCRIPTION	TOTAL BID PRICE
Total from Bid Workbook	\$ _____

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

BIDDER CERTIFICATION

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

We have received addenda

_____ through _____

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

Printed Name and Title _____