SALEM COUNTY IMPROVEMENT AUTHORITY

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RESOLUTION No. 2013-11

February 18, 2013

RESOLUTION ESTABLISHING SCOPE OF WORK FOR DESIGN, BIDDING, INSTALLATION AND CONSTRUCTION MANAGEMENT OF A NEW 500,000 GALLON LEACHATE TANK FOR SOLID WASTE DIVISION

WHEREAS, the Salem County Improvement Authority has completed construction of cell #8 of the landfill located at the Solid Waste Division; and

WHEREAS, the Salem County Improvement Authority plans to open the new cell in the first quarter of 2013; and

WHEREAS, the Salem County Improvement Authority anticipates additional leachate to be produced by the new cell and all new cells constructed thereafter; and

WHEREAS, it would be prudent to increase leachate storage capacity on site; and

WHEREAS, it has been recommended by the Solid Waste Division Landfill Engineer and Division Manager to install an additional 500,000 gallon leachate storage tank; and

WHEREAS, a need exists for the Professional Engineer of the Authority to oversee the design, bidding, installation and construction management of a new 500,000 gallon leachate tank for the Solid Waste Division; and

WHEREAS, the Solid Waste Division Landfill Engineer has submitted the attached proposal for this scope of work;

NOW THEREFORE BE IT RESOLVED BY THE SALEM COUNTY IMPROVEMENT AUTHORITY that T&M Associates is authorized to perform the work set forth in the attached
proposal in an amount not to exceed $110,000.00 and that compensation for various phases of work shall be as provided in such proposal upon issuance of an official notice to proceed; and,

BE IT FURTHER RESOLVED, funding for this scope of work shall be encumbered by the Salem County Improvement Authority Treasurer/Finance Officer in accordance with N.J.A.C. 5:30-5.4;

[Signatures]
John Oder, Chairman
Peter Voros, Secretary

I hereby certify the above to be a true copy of a resolution adopted by the SCIA at a meeting held on Monday, February 18, 2013.

[Signature]
Peter Voros, Secretary
Ms. Deborah Turner-Fox, Executive Director  
Salem County Improvement Authority  
Finlaw Building  
199 East Broadway  
Salem, NJ 08079

Re: Proposal for Professional Services  
Salem County Landfill  
Installation of Leachate Storage Tank and Appurtenances

Dear Ms. Turner-Fox:

T&M Associates (T&M) is pleased to submit this proposal to provide engineering services for the preparation of contract bid documents for an above ground double-containment leachate storage tank and appurtenances at the Salem County Landfill. This proposal also includes bid phase services and construction phase services, which will be provided during the installation of the leachate storage tank.

BACKGROUND

The Phase 1 Landfill Expansion bid documents, prepared by T&M in November 2011, provided for the construction of a 500,000 gallon capacity glass-coated bolted steel leachate storage tank and load-out facilities as a part of the Alternate Bid. The Alternate Bid also included the construction of the entire Phase 1 landfill cell. Due to budget constraints, the Authority limited the award of the construction contract to the Base Bid items, which provided only for a portion of the Phase 1 landfill cell (Phase 1A cell) to be constructed.

The Authority is now in a position to implement the installation of the Leachate Storage Tank and appurtenances. This proposal is for the packaging of the previously completed design documents for a separate construction contract. Also included are the bid phase and construction administration/inspection services.

The proposed double-containment tank will be located adjacent to the existing single-wall leachate storage tank, which was constructed within a clay-lined bermed containment area. In between the existing and proposed leachate storage tanks, a new leachate load-out facility will be constructed. The piping between the two storage tanks would be modified to allow the load-out of leachate from either one of the tanks. In addition, the double-walled HDPE leachate force from the Phase 1A landfill cell, which currently discharges to the facilities gravity leachate
collection system, will be extended to discharge directly into the proposed leachate storage tank.

**SCOPE OF SERVICES**

The services to be provided by T&M are itemized into several tasks, outlined as follows:

**TASK 1 – PREPARATION OF CONTRACT BID DOCUMENTS**

Base plans for the preparation of the contract bid documents will be the latest annual topographic survey, prepared by Sickels & Associates, Inc. dated March 10, 2012. Plans will be prepared using AutoCAD Land Desktop 2008. Generally, we anticipate the contract plans to consist of the following:

- **Cover Sheet** – identifies project location, and includes project title and index of drawings.
- **Existing Conditions Plan** – plan illustrating outbound property boundaries of the Salem County Landfill which will identify site improvements and limits of existing landfill facilities utilizing the latest annual topographic survey information.
- **General Site Plan** – plan of project area which illustrates the layout of project related site improvements.
- **Leachate Storage Tank Site Plan** – plan which illustrates Leachate Storage Tank and Leachate Load-out Facility site orientation, routing of leachate force main piping and location of Leachate Manholes, and grading of surrounding areas for site improvements and roadways.
- **Leachate Tank Sections and Details** – plan illustrating tank sections and dimensions, tank roof plan, tank piping details, lightning protection detail and containment area sump detail.
- **Leachate Tank Foundation Plan** – tank foundation details and dimensions, pipe penetration and connection details through tank foundation, and connection details to existing leachate storage tank.
- **Leachate Loadout Pad** – plan illustrating Loadout Pad dimensions, Loadout Pad footing and foundation wall details, and leachate piping.
- **Leachate Manhole Details** – plan illustrating plan and section views of leachate manholes and internal force main piping.
- **Guide Rail Details** – plan illustrating beam guide rail post assembly, end section, beam guide rail anchorages, rail splice, back-up plate, and beam rail element details.
- **Electrical Site Plan** – plan of project area identifying the location of the new electrical service, and layout of electrical handholes and routing of electrical underground conduits.
- **Soil Erosion and Sediment Control Plan** – plan of project area illustrating the location of installed soil erosion control measures, details of control measures and Standard notes issued by the Salem County Soil Conservation District Office.

Specifications will be developed utilizing the MasterSpec (CSI) format and electronically saved in Microsoft Word. As noted in Task 1, T&M will meet with SCIA personnel, as necessary, to conduct technical reviews of the work product.

Upon completion of the construction bid documents, T&M will prepare a statement of probable cost for the project utilizing current quotations from material vendors and contractors, when available, and R.S. Means unit cost data.

An estimated construction time line schedule will be prepared based on anticipated production rates of specific project items and the sequencing of project phases. Based on the developed construction time line schedule and the statement of probable project costs, a cash flow disbursement will be prepared.

The time line for the completion of the final design documents will be four (4) weeks from authorization to proceed.

**TASK 2 – BID PHASE SERVICES**

T&M will provide contract plans and specifications for distribution to prospective bidders. T&M will be available during the bid phase to respond to questions from prospective bidders and respond, if necessary, in the form of addenda. A representative from T&M will be present at the pre-bid meeting and at the bid opening. T&M will obtain copies of all bids received at the bid opening for tabulation and technical review. T&M will rank all bids and provide a technical recommendation regarding the lowest responsible bidder. If it is necessary to meet with the apparent low bidder before an award recommendation is issued, T&M will coordinate all such activities with the SCIA.

**TASK 3 – CONSTRUCTION PHASE SERVICES**

It is assumed that the project construction period will encompass a period of approximately six (6) months. During this period, T&M will provide construction monitoring on a part-time basis, approximately 20 man-hours per week. The following Scope of Services outlines the
Construction Management and Construction Observations.

Construction Project Manager Role

The Site Representatives (SR’s) have direct, day-to-day responsibility for the inspection performance, administration and reports for the construction. The Project Manager (PM) conducts job meetings, as necessary, to discuss performance to-date, any design and contract issues, submittal status, upcoming tasks and plans for their implementation, and overall coordination of all efforts. The PM formalizes and distributes minutes of all meetings. The PM is responsible for the implementation of the inspection plan. He will oversee the field inspection effort and his site presence will be governed by key events, phases and project evolutions, as well as when called upon for specific issues. The PM will draw upon his construction experience to choose key points in the construction process to stay abreast of the physical work and conduct QA audits of our work effort. The PM is also responsible for all formal correspondence to/from the contractor and all other parties. He will review the documentation of the construction management/engineering inspection effort. In addition, the PM is responsible for claims resolution, mitigation and avoidance.

The PM will conduct bi-weekly construction meetings throughout the duration of construction with the various construction contractors, utility and government authorities to review work in progress, project schedule, action items and conformance issues. The PM will prepare minutes of these meetings, capturing its salient points and information, and transmit them to the project participants.

Site Representative Role

In the field, the SR’s observe the construction activity including performing and documenting material and installation inspections to determine if the work is delivered / constructed in general conformance with the contract plans, specifications and approved submittals. They will notify the PM of any unacceptable work or material, track the discrepant condition and inspect the work until it is corrected. The SR’s will determine conditions, limitations, etc. of permits required for the project and observe if they are being met. They will report deficiencies to the PM for further action. As design interpretation and clarification issues or unforeseen field conditions arise, the SR’s will coordinate with the PM, as appropriate, to respond to Requests for Information (RFI). The SR’s will consult with the PM and to ascertain or develop responses to more complex issues or items requiring design changes. As construction proceeds, the SR’s keep a separate set of plans red-lined with as-built data for use by the PM in completing an as-built set of plans. The SR’s role in the construction effort is geared to proactively interface with the contractor’s site supervisor, prior to the initiation of a specific work activity, to understand
his means and methods in an attempt to avoid errors and rework. Open communications with the contractor will be maintained.

Work in Progress Reports and Documentation

An immediate priority of the PM is the setting up of the project files. The Home Office file office will contain the project master file of correspondence in/out, meeting minutes, pay certifications, change orders, schedules, submittal log, submittal transmittals, all submittal packages (approved, not approved and superseded), punch-lists, inspection reports and closeout documents. As soon as practicable, the field file will be set up. This file, for daily use by the Inspectors, is essentially a duplicate of the project master file except that it contains only approved submittals and, naturally, does not contain closeout documents.

The SR’s maintain a daily log/journal, contemporaneously recording, among many things, events, issues, observations and decisions of the day. The SR’s generate an inspection report each day he is on the project, including a record of atmospheric conditions, location and description of the work observed and its acceptability, general completion status of the project, numbers and classification of each contractor’s work force on site, equipment used, visitors, recording of technical data such as sub-grade material and depth or invert elevations, material tests conducted, verbal interpretations and instructions given to contractor, and notation of any issues or quality concerns. The SR’s keep a digital photographic record of the work effort as it progresses.

Testing

The SR’s will observe third party on-site testing (such as slump tests, air tests, soil density) done by the construction contractor or T&M’s testing services agency for conformance with the contract documents and standard practices. The SR’s will review the laboratory’s testing reports for form and technical content to check if the materials meet the contract requirements. Testing results found to be in non-conformance with the contract requirements will be brought before the contractor’s attention, discussed and action collaboratively developed.

Submittal and Shop Drawing Review

The PM will receive and process the project submittals and shop drawings for the project elements submitted by various contractors. These documents will be distributed to our various design team members for review and processing.
Review of Invoices and Recommendation of Payments

The construction contractor will use standard invoice format conforming to the contract schedule of values. The draft invoice will be reviewed and, if acceptable, will be recommended to SCIA for payment. The SR’s compare requested pay items for concurrence with his field measurements taken during the month and reconciles any differences with the contractor. Monthly contractor payment requisitions certified by the PM for presentation to the SCIA. The PM will schedule the requisition process to conform to the processing cycle.

Review Change Orders and Claims

Change order requests will be evaluated initially, and we will attempt to resolve and come to agreement with the contractor as to cost and schedule impact. Upon agreement, the PM will prepare a complete change order package (including all additional costs and fees requested and recommendations) and submit it to SCIA Managers for approval. Upon its return, the PM will produce and transmit the change order document to the contractor for execution. No change order work will be authorized to proceed without first obtaining written change order approval from SCIA.

Develop Punch List, Review Record Drawings, Project Close-Out

While successful execution of the construction work to reach substantial completion is obviously important, no job can be considered successful until all work is completed in accordance with the contract documents and all closeout documents are executed. During this phase, the SR’s conduct a preliminary inspection of the work and, through the PM, issues a preliminary punch-list to the contractor. The SR’s will monitor the open items until all items are completed satisfactorily. The SR’s will notify the PM when he assesses that the project is substantially complete. The PM will confirm that all work is completed and issue notice to SCIA that the work is ready for final inspection. Any punch-list items identified will be noted, transmitted to the contractor and monitored to completion.

The SR’s will monitor and interact with the contractor to encourage prompt conclusion of the contractor’s demobilization and final site cleanup effort, including restoration. Meanwhile, he will assist the PM in administering the contract closeout process, including final pay certificate preparation, including submission of required test reports, execution of any affidavits, release of liens, receipt of maintenance bond, warranties/guarantees, and other technical data, as required. The PM will coordinate the transmission of the as-built marked-up drawings for incorporation into record drawings by the design team. At the appropriate time, the PM will issue a project completion certification stating that the work was done in general conformance with
the plans and specifications and attesting that the final payment quantities and costs are correct.

TASK 4 – EXPENSES

Expenses incurred by T&M will be invoiced in accordance with our standard terms and conditions. Expenses may be accrued for such items as photocopies, prints, mileage, express mailing, lab testing, etc.

COST PROPOSAL

The services proposed by T&M will be performed on a time and materials basis, not to exceed amount of $107,664.00, in accordance with our approved Rate Schedule.

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<th>Task</th>
<th>Task Description</th>
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<tr>
<td>1</td>
<td>Preparation of Contract Bid Documents</td>
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<td>2</td>
<td>Bid Phase Services</td>
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<td>3</td>
<td>Construction Phase Services</td>
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If you have any questions or require additional information, please do not hesitate to call.

Very truly yours,

T&M ASSOCIATES

Jeffrey B. Winegar, P.E.
Group Manager

Edwin J. Steck, P.E.
Senior Vice President