



December 23, 2003

Mr. Jim Smith
Executive Director
Brazos Valley Solid Waste Management Agency
P.O. Box 9960
College Station, TX 77842

Re: Request for Change Order Related to the Initiation Phases of the Landfill Gas Collection System,
Title V Air Permit Package, and CQA for Final Closure Activities at the Rock Prairie Road Landfill
(College Station, Texas); City of College Station Purchase Order No. 030757

Dear Mr. Smith:

CSC Engineering & Environmental Consultants, Inc. (CSC) is pleased to present this cost estimate and scope of work for the performance of engineering services at the Rock Prairie Road Landfill. A detailed discussion of the proposed scope of services, proposed project schedule, and cost estimate for each phase of the project has been developed based on our knowledge of the site and is included as an attachment to this letter.

The scope of engineering services and associated cost estimate were developed in association with the "project team" (CSC Engineering & Environmental Consultants, Inc. & HDR Engineering, Inc.) and is submitted in response to recent conversations as a request for change order to the above-referenced project. CSC is currently under contract for the following design phases: Phase I - Landfill Closure Design, and Phase II - Landfill Gas System Design. This request will include additional services for the following phases:

Phase III – Initiation of the Landfill Gas Collection System (First 50 Acres)

Phase IV – Title V Air Permit

Phase V – Construction Quality Assurance (CQA) for Final Cover System

The cost of each of the new phases of work as presented in the previously referenced attachments was developed in accordance with the terms and fees of the current contract with the City of College Station.

Upon approval, CSC will enter into an agreement with the City of College Station for the aforementioned services. The terms and conditions of this proposal are contingent on a mutually acceptable agreement between CSC and the City of College Station.

Please contact us at (979) 778-2810 if you have any questions or need additional information concerning this matter.

Respectfully,

W. R. Cullen, P.E.
Senior Engineer

M. Frederick Conlin, Jr., P.E.
Senior Engineer

WRC:mf
Via Hand Delivery

SCOPE OF SERVICES

PHASE III – INITIATION OF THE LANDFILL GAS COLLECTION SYSTEM (FIRST 50 ACRES)

CSC will provide Professional Engineering Services for bid administration and construction quality assurance (CQA) during placement of the first 50+/- acres of the Landfill Gas Collection System (LGCS) at the Rock Prairie Road Landfill. This effort is a continuation of the design phase (preparation of Contract Documents) which is currently being finalized by HDR.

The CQA work will focus on several critical items in the LGCS construction: verification that the vertical extraction wells are drilled in the appropriate locations, and verification that the collection lines have the appropriate slope to prevent the accumulation of gas condensate in the lines, and that the liner system is not compromised. Observation or monitoring of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. As such, a significant effort will be required by the design engineer to oversee the installation of the LGCS and to make modifications in the field as conditions dictate. Additionally, training of site personnel will be crucial in the long-term, efficient performance of the LGCS to control methane migration and odors. The following paragraphs outline objectives and additional activities that will be pursued under Phase III of the project.

Bid Administration and Evaluation

Bid Administration Services will be provided to assist BVSWMA in securing an experienced contractor to perform the construction services described in the Contract Documents for the Initiation of the first 50+/- acres of the Landfill Gas Collection System.

The “Project Team” will prepare an engineer’s estimate of the probable cost of construction based on the construction plans and specifications approved by BVSWMA. Design professionals will facilitate a one-day pre-bid meeting in College Station to describe the project to interested contractors and answer questions regarding the project. Subsequently, the “Project Team” will respond to questions from contractors during the bid process. All questions will be presented to BVSWMA or the City of College Station, compiled, and forwarded to CSC for a response. In addition, the “project team” will consult with and advise BVSWMA as to the acceptability of substitute materials and equipment proposed by the contractor(s) and assist BVSWMA in evaluating bids.

The “project team” will coordinate a pre-construction meeting at the Rock Prairie Road Landfill subsequent to the award of the contract. The “project team” will also review Contractor Shop Drawing submittals in accordance with the Construction Contract documents and recommend approval/denial of submittals, as applicable. In addition, the project team will respond to Contractor’s written Request for Information (RFI) as needed to ensure the design intent is being constructed. Design professionals will spend up to one week on site at the beginning of the Landfill Gas Collection System installation to oversee the Contractor’s activities and answer questions during the installation process. In addition, CSC will provide periodic review of construction activities at the landfill site in order to minimize delays and resolve any questions that may arise during installation. The “project team” will review Applications for Payment as they relate to the Landfill Gas Collection System components and will prepare a record document of as-built conditions for the System once the installation is complete.

System Startup and Operator Training

The “project team” will assist in the start-up operations of the Landfill Gas Collection System components (including the flare) and the training of landfill personnel in flare operation and maintenance and condensate pumping systems operation and maintenance. Questions regarding the operation and maintenance of the System will be addressed by the “project team” to ensure that BVSWMA personnel develop a detailed understanding of the system.

Phase III Schedule and Cost Estimate

It is estimated that the Phase III activities will be completed within three months of contractor’s notice to proceed. CSC will invoice BVSWMA **\$145,000** for Professional Services described in this Proposal on a Time and Material basis. The indicated total fee for this Scope of Services will not be exceeded without written approval by BVSWMA.

Time and Material costs for the professional engineering services outlined in this Scope of Services are based on the terms and conditions of the original agreement.

PHASE IV – TITLE V AIR PERMITTING

The “project team” proposes to prepare a revised Design Capacity Report, a Standard Air Permit Application for Construction, and a Title V Air Emission Operating Permit Application for the Rock Prairie Road Landfill for submission to the Texas Commission on Environmental Quality (TCEQ).

Permitting Activities

The “project team” will calculate volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) emissions for the landfill; fugitive dust emissions from truck traffic; and landfill equipment emissions. Emission calculations will be based upon the EPA Landfill Gas Emissions Model and published EPA AP-42 emission factors. The “project team” will also perform an air regulation review for the facility. This information will be used to develop the required permit applications, using applicable TCEQ forms. The accurate determination of air emissions will require baseline data regarding landfill operations. It is anticipated that BVSWMA will provide recent traffic counts and tonnages accepted for disposal as well as estimates of future tonnages to be accepted through the life of the site.

Phase IV Schedule and Cost Estimate

It is estimated that the Phase IV activities will be completed within one month of approval and notice to proceed. CSC will invoice BVSWMA **\$20,000** for Professional Services described in this Phase on a Time and Material basis. The indicated total fee for this Scope of Services will not be exceeded without written approval by BVSWMA. Time and Material costs for the professional engineering services outlined in this Scope of Services are based on the terms and conditions of the original agreement.

PHASE V – CONSTRUCTION QUALITY ASSURANCE FOR FINAL COVER SYSTEM

The “project team” will provide quality assurance testing and oversight services for the installation of the final cover system for the 70-acre portion of the landfill. Prior to initiation of construction activities, CSC will attend and participate in the design review meeting to clearly establish lines of communication, reporting and documentation requirements, and identify the role of key personnel. CSC will be represented by the Professional of Record ([POR] Rick Conlin, P.E.), the Geotechnical Professional ([GP] Bill Cullen, P.E.), and the CQA Monitor (Philip Cadarette). In addition, CSC anticipates similar participation at the Pre-Construction meeting to identify expectations of all parties involved in the project. Additional meetings (i.e., progress meetings, deficiency meetings [if warranted], etc.) will, at a minimum, be attended by the CQA Monitor.

CSC will provide oversight and documentation of all activities associated with the closure of the 70-acre Pre-Subtitle D area. These activities will be performed in accordance with the Final Cover System Quality Control Plan (FCSQCP) and will include evaluation of subgrade preparation and construction of the infiltration and the erosion layers

Infiltration Layer

. CQA responsibilities will be performed by the GP and/or CQA Monitor, one of which will be present 100% of the time during the construction of the infiltration layer. Field and laboratory testing activities will be performed under the direction of CSC technicians who will provide assistance on an as-needed basis. In-place moisture density tests will be performed at a minimum rate of 1 test per 8,000 ft² for each 6-inch depth interval (lift). Additional laboratory tests including Atterberg limits and percent passing No. 200 sieve will be performed at a rate of 1 test per 100,000 ft² for each evaluated area for each lift of the infiltration layer to verify material consistency. Hydraulic conductivity tests will be conducted at a rate of one test per surface acre of final cover or by testing each lift at a frequency of one test per three acres. Information developed during the installation and testing of the infiltration layer will be reviewed by the POR and submitted to the TCEQ as the Final Cover System Evaluation Report (FCSER) for the 70-acre closure area.

Erosion Layer

CQA of the erosion layer will also be conducted in accordance with TCEQ guidelines. Thickness verification of the erosion layer will be performed by observations made during the installation process. Evaluation of measured checks will be performed at a rate of 1 test every 10,000 ft².

Final Cover System Evaluation Report

Subsequent to the completion of the final cover system, CSC will complete and submit the Final Cover System Evaluation Report (FCSER) to the TCEQ for review and approval. The report will include the results of all CQA testing and observations, as well as as-built drawings of the 70-acre closure area.

Phase V Schedule and Cost Estimate

It is estimated that the Phase V activities will be pursued over a five to seven month period depending on weather conditions and the selected contractor. According, the cost for the 70-acre closure area has been estimated on a “per acre” basis in accordance with established TCEQ requirements. CSC estimates that the cost for CQA activities for the 70-acre area will not exceed \$4,500 per acre, or **\$315,000**. The indicated total fee for this Scope of Services will not be exceeded without written approval by

BVSWMA. Time and Material costs for the professional engineering services outlined in this Scope of Services are based on the terms and conditions of the original agreement.