

# VENTURA REGIONAL SANITATION DISTRICT

1001 PARTRIDGE DRIVE, SUITE 150 • VENTURA, CA 93003-0704



November 21, 2011

Board of Directors  
Ventura Regional Sanitation District  
Ventura, California

## VRSD CONTRACT NO. 11-021-1 WITH SWT ENGINEERING FOR ENGINEERING SERVICES AT TOLAND ROAD LANDFILL

### SUMMARY

VRSD staff is requesting approval to amend the existing VRSD Contract No. 11-021 with SWT Engineering (SWT) to adjust the budget for a new not-to-exceed contract amount of \$75,000.

### BACKGROUND

The VRSD Board entered into Contract No. 11-021 with SWT Engineering on September 2011. The contract allowed VRSD staff to request on-call engineering services. These services included assistance with the leachate recirculation program, leachate collection system and landfill gas header system. Due to various issues with the construction of Phase IIIB, VRSD staff request SWT's assistance with completion of the expansion project. Tasks include completing the tie-in between Phase IIIA and IIIB, coordinating and submitting the final CQA Report to the Regional Water Quality Control Board (RWQCB) for approval, and responding to any concerns and/or issues that the RWQCB may have. Therefore, staff is requesting to add additional funds to this contract so that the work on the leachate system and gas system may continue as originally planned.

### FISCAL IMPACT

There are sufficient funds allocated in the Capital Projects category of the FY2012 adopted budget to cover these expenses.

### RECOMMENDATION

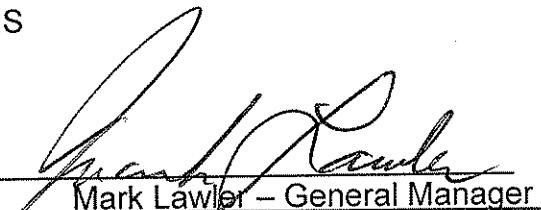
It is recommended the Board authorize the Chairman to sign Contract No. 11-021-1 amending Contract No. 11-021 with SWT Engineering to add to the scope of work and add an additional \$50,000 to the contract for a total authorized amount of \$75,000.



SALLY COLEMAN – DIRECTOR OF OPERATIONS

Enc.

APPROVED FOR DECEMBER 1, 2011 AGENDA



Mark Lawler – General Manager

**CONTRACT NO. 11-021-1  
AMENDMENT NO. 1 TO CONTRACT NO. 11-021  
AGREEMENT FOR CONSULTING SERVICES  
BETWEEN  
VENTURA REGIONAL SANITATION DISTRICT  
AND  
SWT ENGINEERING**

THIS AGREEMENT is made and entered into this 1<sup>st</sup> day of December 2011 by and between the VENTURA REGIONAL SANITATION DISTRICT, a public agency formed pursuant to California Health & Safety Code Section 4700 et seq., ("DISTRICT") and SWT ENGINEERING, a California Corporation, hereinafter "ENGINEER."

**AMENDMENT**

A. On the 22<sup>nd</sup> day of September 2011, a certain contract, hereinafter referred to as Contract No. 11-021, was executed between DISTRICT and ENGINEER to provide on-call engineering services.

B. DISTRICT and ENGINEER have agreed that additional compensation is necessary to complete the work and can be accomplished by amending Contract No. 11-021 accordingly.

**RECITALS**

NOW, THEREFORE, in consideration of the mutual covenants, promises, and agreements set forth, it is agreed the aforesaid Contract No. 11-021, a copy of which is attached as Exhibit "I" and incorporated herein by reference, shall remain in full force and effect, except as otherwise hereinafter provided.

The parties agree the following language shall replace the original provisions of Article 3: Compensation

"Fees for services provided in Article 2 of this agreement will be determined on the basis of Direct Salary Cost and Direct Nonsalary Cost, as herein defined, except that the total fees for services shall be increased by \$50,000.00 and shall not exceed \$75,000.00 without written amendment hereto."

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above written.

APPROVED AS TO FORM: ARNOLD, BLEUEL,  
LaROCHELLE, MATHEWS, & ZIRBEL, LLP

VENTURA REGIONAL SANITATION DISTRICT

By \_\_\_\_\_  
MARK A. ZIRBEL  
Legal Counsel for DISTRICT

By \_\_\_\_\_  
JAMES L. MONAHAN, Chairman Board of  
Directors

ATTEST:

SWT ENGINEERING

By \_\_\_\_\_  
JOSIE GUZMAN, Clerk of the Board

By \_\_\_\_\_  
MICHAEL A. CULLINANE, Principal Engineer

**INTERNAL USE ONLY**

Principal Analyst \_\_\_\_\_

Finance Manager \_\_\_\_\_

Director of Finance \_\_\_\_\_

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**Exhibit "I"**

**CONTRACT NO. 11-021**

**AGREEMENT FOR ENGINEERING SERVICES  
BETWEEN  
VENTURA REGIONAL SANITATION DISTRICT  
AND  
SWT ENGINEERING**

THIS AGREEMENT is made and entered into this 22 day of September 2011 by and between the VENTURA REGIONAL SANITATION DISTRICT, a public agency formed pursuant to California Health & Safety Code Section 4700 et seq., hereinafter "DISTRICT," and SWT ENGINEERING, a California Corporation, hereinafter "ENGINEER."

**RECITALS**

- A. DISTRICT has a need to engage the specialized services of an ENGINEER to provide on-call engineering services.
- B. ENGINEER represents that possesses the necessary licenses, skills, and experience to perform the required services and willing to contract with DISTRICT.
- C. This Agreement is in accord with DISTRICT's Purchasing Resolution No. 89-13 adopted November 9, 1989.
- D. The parties enter into this Agreement to set forth their respective rights and obligations.

**AGREEMENT**

**ARTICLE 1: TERM**

The term of this Agreement shall be from August 1, 2011 until June 30, 2012. This Agreement may be extended for additional one-year periods to a total of five at DISTRICT's sole option upon acceptance of the current terms, conditions, and price.

**ARTICLE 2: SCOPE OF SERVICES**

ENGINEER shall complete DISTRICT on-call engineering projects as requested during the term of this Agreement as outlined in the Scope of Service attached as Exhibit "A" and incorporated by reference herein.

DISTRICT and ENGINEER shall discuss each project prior to commencing work under this Agreement. DISTRICT will provide ENGINEER with a written authorization to proceed, which shall include a brief project description as well as work and payment schedules, the required completion date and the total amount to be paid for the work. ENGINEER shall indicate its acceptance of the project by signing and returning a copy of the authorization to DISTRICT within five (5) working days.

It is expressly understood and agreed between the parties that this Agreement is not intended, nor shall it be used, for "public projects" as defined in the Uniform Public Construction Cost Accounting Act, Public Contract Code, Section 22000, et seq. Such projects shall be publicly bid and awarded as required thereby. In the event ENGINEER believes any project proposed by DISTRICT under this Agreement is subject to the Uniform Public Construction Cost Accounting Act, ENGINEER shall immediately advise DISTRICT in writing and await written confirmation of DISTRICT's intention to proceed before commencing work.

### ARTICLE 3: COMPENSATION

Fees for services provided in Article 2 of this agreement will be determined on the basis of Direct Salary Cost and Direct Nonsalary Cost, as herein defined, except that the total fees for services shall not exceed \$25,000.00.

#### A. Direct Salary Cost

For the time of all personnel employed by ENGINEER, the fees payable by DISTRICT shall be ascertained by multiplying the number of hours worked by each classification of employee on the Project by the appropriate hourly rates shown in the attached Exhibit "B", incorporated by reference herein.

#### B. Direct Nonsalary Cost

For direct nonsalary cost, the fees payable by DISTRICT shall be an amount determined by multiplying actual costs by a factor of 1.1. Direct Nonsalary Costs include, but are not limited to, the following:

1. Services directly applicable to the work, such as special consultants, commercial printing, and similar costs that are not applicable to general overhead.
2. Identifiable reproduction costs applicable to the work, such as printing of drawings, photostats, lithographing, printing and similar costs.
3. Identifiable communication expenses such as long-distance telephone, telegraph, cable, express charges, and postage other than for general correspondence.
4. Automobile travel at the current Federal rate per mile, which shall not be subject to the 1.1 factor.

### ARTICLE 4: INDEMNIFICATION AND HOLD HARMLESS

ENGINEER agrees to defend, indemnify and hold harmless DISTRICT and its officers, agents and employees, from and against any and all liability, damages, costs, losses, claims including reasonable attorneys fees and costs incurred by DISTRICT, and expenses, however caused, resulting directly or indirectly from or connected with ENGINEER's negligent performance or errors and omissions under this Agreement (including, but not limited to such liability, cost, damage, loss, claim or expense arising from the death of or injury to, or damage to property of ENGINEER, DISTRICT, or their respective employees or agents), regardless of the active or passive negligence of DISTRICT, except to the extent such liability, damages, costs, losses, claims or expenses are caused by the negligent or wrongful acts or omissions of DISTRICT or any of its agents or employees.

### ARTICLE 5: INSURANCE

ENGINEER shall provide and keep in effect during the term of this Agreement insurance as follows:

- A. Workers' Compensation and Employer's Liability in accordance with applicable laws.
- B. Comprehensive Commercial Liability policies with combined single limit coverage of at least \$1,000,000 for any personal injury, death, or property damage.
- C. Comprehensive Automobile Liability policies with combined single limit coverage of at least \$1,000,000 for personal injury, death, or property damage.

ENGINEER shall provide a certificate of such insurance to DISTRICT prior to the start of work. Said certificate shall specifically provide that: (1) DISTRICT is an additional insured for the coverage in items B and C above; (2) any other insurance coverage applicable to the loss shall be deemed excess coverage and ENGINEER's insurance shall be primary; and (3) such insurance shall not be terminated or canceled without thirty (30) days' prior written notice having been given DISTRICT at its address set out in this Agreement, except that ten (10) days' written notice shall be acceptable in the case of cancellation for nonpayment.

Should ENGINEER use the services of a subcontractor, ENGINEER shall require that the subcontractor provide and keep in effect identical insurance to that which ENGINEER is required to provide pursuant to the terms of this Article 5 and shall require that the subcontractor provide a certificate of insurance to ENGINEER and DISTRICT prior to the time that the subcontractor starts work, which certificate shall be in the same form as ENGINEER is required to provide to DISTRICT.

#### **ARTICLE 6: CHANGE ORDERS**

No change to Exhibit "A" hereto, or to any other provision of this Agreement, may be made except by a written amendment authorized by DISTRICT Board of Directors and signed by ENGINEER and DISTRICT.

#### **ARTICLE 7: SUSPENSION OR TERMINATION OF SERVICES**

If ENGINEER refuses or fails to perform the work as requested in a timely and/or otherwise acceptable manner, DISTRICT shall notify ENGINEER in writing of such deficiency. Should ENGINEER fail to correct such deficiency within thirty (15) calendar days, DISTRICT may immediately terminate this agreement and notify ENGINEER in writing of such termination.

If any part or all of the work for which services have been authorized is postponed, suspended, or abandoned, DISTRICT shall have the right to suspend where the work has been postponed or suspended, or terminate where the work has been abandoned, the rendition of services or that portion of the work so postponed, suspended, or abandoned. In the event of such suspension or termination, ENGINEER shall have the right to expend additional time to assemble the work in progress for the particular section of work for the purpose of proper filing and closing the job. Such additional time shall not exceed ten percent of the total time expended on the section or sections of work suspended or abandoned at and to the date of the notice of suspension or termination, and shall not increase ENGINEER's total compensation beyond the maximum stated in Article 3.

#### **ARTICLE 8: ASSIGNMENT/INDEPENDENT CONTRACTOR RELATIONSHIP**

A. It is expressly understood between the parties that no employee/employer relationship is intended, the relationship of ENGINEER to DISTRICT being that of an independent contractor. DISTRICT shall not be required to make any payroll deductions or provide Workers' Compensation Insurance coverage or health benefits to ENGINEER.

B. ENGINEER is solely responsible for selecting the means, methods, and procedures for doing the work assigned, and for coordinating all portions of the work so the results will be satisfactory to DISTRICT. ENGINEER will supply all tools and instrumentalities required to perform its services under the Agreement.

#### **ARTICLE 9: NO WAIVER**

No failure or delay by DISTRICT in asserting any of DISTRICT's rights and remedies as to any default of ENGINEER shall operate as a waiver of the default, of any subsequent or other default by ENGINEER, or of any of DISTRICT's rights or remedies. No such delay shall deprive DISTRICT of its right to institute and maintain any action or proceeding which may be necessary to protect, assert or enforce any rights or remedies arising out of this Agreement or the performance of this Agreement.

**ARTICLE 10: AUDIT**

DISTRICT shall have the right to inspect and/or audit all records and other written materials used by ENGINEER in preparing its statements to DISTRICT as a condition precedent to any payment to ENGINEER.

**ARTICLE 11: NOTICES**

All notices or other official correspondence relating to contractual matters between the parties hereto shall be made by depositing same first-class, postage paid mail addressed as follows:

To ENGINEER: Michael L. Cullinane, Principal Engineer  
SWT ENGINEERING  
800-C South Rochester Avenue  
Ontario, CA 91761

To DISTRICT: Finance & Administration  
VENTURA REGIONAL SANITATION DISTRICT  
1001 Partridge Drive, Suite 150  
Ventura, CA 93003-0704

or to such other address as either party may designate hereinafter in writing delivered to the other party. All notices shall be deemed to have been received three (3) days after mailing.

**ARTICLE 12: AUTHORITY TO EXECUTE AGREEMENT**

Both DISTRICT and ENGINEER do covenant that each individual executing this Agreement on behalf of each party is a person duly authorized and empowered to execute Agreements for such party.

**ARTICLE 13: TITLE**

Title to all materials shall remain with ENGINEER until DISTRICT actually accepts the completed project.

**ARTICLE 14: RIGHT OF INSPECTION**

DISTRICT shall have the right to inspect the materials at the time and place of delivery/installation before accepting them.

**ARTICLE 15: NON-INTERFERENCE WITH DISTRICT'S OPERATIONS**

ENGINEER recognizes the primary activity at the work site is District's operation of a water and wastewater treatment facilities. ENGINEER shall operate so all work under this contract is compatible with and does not interfere with DISTRICT's operations.

**ARTICLE 16: COMPLIANCE WITH LAWS**

This agreement shall be governed by the Uniform Commercial Code of the State of California, as amended. ENGINEER shall be solely responsible for giving all notices and complying with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority relating to ENGINEER's work, the safety of the persons or property involved, and their protection from damage or injury. ENGINEER shall defend, indemnify and hold DISTRICT harmless from and against all claims, demands, payments, suits, actions, proceedings and judgments of every nature and description, including reasonable attorneys fees and costs, brought or recovered against DISTRICT, for or on account of any liability under said laws, ordinances, rules, regulations and orders which may be incurred by reason of any work to be performed by ENGINEER with this Agreement.

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**ARTICLE 17: PARTIAL INVALIDITY**

If any term, covenant, condition or provision of this Agreement is found by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect, and shall in no way be affected, impaired, or invalidated thereby.

**ARTICLE 18: INCORPORATION OF RECITALS**

The foregoing recitals are incorporated herein as though fully set forth.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above written.

VENTURA REGIONAL SANITATION DISTRICT

SWT ENGINEERING

By *Mark Lawler*  
MARK LAWLER, General Manager

By *Michael A. Cullinane*  
MICHAEL A. CULLINANE, Principal Engineer

**INTERNAL USE ONLY**

Principal Analyst \_\_\_\_\_

Finance Manager \_\_\_\_\_

Director of Finance \_\_\_\_\_

Fiscal Technician \_\_\_\_\_

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Exhibit "A"



**ENGINEERING**

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September 15, 2011

Ms. Sally Coleman  
Ventura Regional Sanitation District  
1001 Partridge Drive, Suite 150  
Ventura, CA 93003-5562

RE: SCOPE OF WORK

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Dear Ms. Coleman:

As a follow up to our meeting September 13, 2011, SWT Engineering (SWT) has prepared the following suggested scope of work/tasks for your review.

**Task 1 Respond to RWQCB Letter "Leachate Recirculation Requirements"**

SWT will respond to the April 26, 2010 letter from the RWQCB, specifically item d. Moisture Monitoring. The response will include an alternative proposal to the drilled refuse moisture investigation as proposed in the RWQCB letter. An alternative to the RWQCB proposed condition is to excavate a trench between two of the reintroduction wells, perpendicular to and westerly of the line of wells. This approach was discussed with VRSD Staff at a meeting on September 13, 2011. Discussion included determination that the refuse lift below the wells is twenty feet in thickness and was sloped to the west. The rock gallery around the reintroduction well is eight feet thick. SWT recommends: a trench alternative, with excavation depth of 24-feet; visual observation of moisture conditions, and observation of any preferential path seeps into the trench versus lab testing for actual moisture content. This will enable observation within the upper-most lift of refuse, as well as into the refuse lift below. Trench length will be between 50 and 75 feet. This concept was discussed with Enrique Casas on 9/14/11 who was receptive to the proposed concept.

Deliverables

- ◆ Response letter and letter work plan for the moisture investigation submitted to both the RWQCB and the Local Enforcement Agency (LEA).

**Task 2 Assist VRSD with Selection of LCRS Pump Sizing, Equipment, Discharge Line, and Interim Elevated Storage Tank**

Phase IIIB Stage 2 LCRS Sump requires a dedicated Leachate Pump to enable compliance with CCR 27 requirements of no more than 12 inches of head on the liner. Interim transfer of leachate can be facilitated by placing an elevated storage tank (either a temporary "Klein Tank" with temporary HDPE secondary containment or a permanent containment area with two "Poly Tanks" with an overhead water truck load-out system. The interim LCRS Storage facility will be located at the southeast side of the Phase IIIB Toe Berm north of the Sludge drying facility. This is an interim system that will allow VRSD Staff to load a dedicated water

truck with leachate for transport to the reintroduction wells at the top deck area within the Phase II Liner Area. SWT will utilize existing HELP modeling from the Phase I and Phase II EBA study, the Phase IIC and Phase III Design Report, as well as historic leachate generation data provided by VRSD to determine the required pump capacity (equivalent to twice the peak daily leachate production). Calculations will also include secondary containment storage volume and required number of daily water truck loads. It is anticipated that a pump system with control panel similar to an EPG leachate pump will be utilized. SWT will assist VRSD Mechanical in determining total dynamic head which includes discharge line loss, elevation and other minor loss calculations required to select the proper LCRS Pump Curve. Pump manufacturer, pump size, number of stages, power supply, and appurtenance elements such as discharge line type, control panel and control system will also require input. SWT will also assist VRSD Staff with: 1) Sizing the "Secondary LCRS Riser" for the LCRS Sump; and 2) the Vendor Order for the pump and control system. This is the initial stage of an overall leachate management system intended to allow beneficial occupancy of the Phase IIIB liner area (Leachate control is essential for operation within the liner area), and to provide an interim means to extract, load and transport leachate to the re-introduction area. SWT will also provide VRSD Site Staff with a concept drawing for the interim system.

#### Deliverables

- ◆ Estimated Peak Daily Leachate Volume Calculations; assist VRSD Mechanical Engineer; Assist VRSD Staff with LCRS Riser sizing and Vendor order; provide concept drawing of Interim LCRS Storage System.

#### Task 3 LFG Header Sizing

SWT understands that VRSD desires to more effectively extract Landfill Gas from both the Phase II (Upper Phase) as well as the Phase IIIA and IIIB areas. Currently there is one header line on the east side of the site serving all the LFG wells. Since the westerly perimeter road and drainage systems improvements have been installed at the ultimate landfill development condition, it is logical to install a west perimeter LFG Header that is sized for efficient extraction and conveyance of LFG to the Co-Generation and Bio-solids Drying facilities. VRSD indicated that they need approximately 1000 SCFM for the micro-turbines and 1000 SCFM for the bio-solid driers, and that they will install approximately 800 feet of 12-inch header and an additional length of 6-inch header to temporarily serve the Phase IIIA and Phase IIIB Stage 1 areas. Based on Tonnage records, an aerial topographic placement history, and LFG generation curves, SWT (Alan Janecek) will determine LFG generation and recommend header sizing for a perimeter header system.

#### Development of LFG Generation Models

Landfill gas (LFG) generation models will be prepared for the Toland Road Landfill. The model will utilize the historical topographic maps, refuse tonnage data, and airspace utilization factor (AUF) provided by VRSD. The balance of refuse fill model will use tonnage projections, phased refuse fill plans, and historical data concerning Phase IIIA refuse inflow. The LFG generation models will be based on the United States Environmental Protection Agency (USEPA) Landfill Gas Emissions Model. Information such as landfill disposal rates or waste characteristics will be used wherever possible to prepare the models.

The models will be calibrated to reflect climate and disposal conditions in Southern California and site specific conditions at the Toland Landfill. SWT will use information regarding LFG recovery rates at the landfill and other similar landfills to refine the factors that are inputs into the model. This will allow the LFG generation estimate to accurately project future LFG generation.

The estimation method used by the model is a simple first-order decay equation. Because the data available for landfills, such as data on the quantity, age, and composition of the refuse in the landfill, are limited, using a more sophisticated calculation method is not justified. The Landfill Gas Emissions Model estimates emissions of methane, carbon dioxide, non-methane organic compounds, and selected air pollutants. LFG is assumed by the model to be roughly half methane and half carbon dioxide, with additional, relatively low concentrations of other air pollutants.

The LFG generation models will be calculated in terms of standard cubic feet per minute (SCFM) of methane. LFG is typically composed of 40 to 50 percent methane. The LFG generation model is based on the following first order decay equation:

$$Y_t = L_o \times k \times e^{-kt}$$

where:

$Y_t$  = Methane yield at time t, in units of  $\frac{\text{Volume}}{\text{Mass} \times \text{Time}}$   
 $L_o$  = Total potential yield in units of Ft<sup>3</sup> of methane/lb of refuse  
 $t$  = Time at which the yield is calculated from time of waste deposition

$k$  = Rate constant =  $\frac{-\ln(S)}{H}$   
 $H$  = Half life of refuse

The total methane production from a given mass of refuse during a given time period is determined using the following equation:

$$P_t = Y_t \times M_t$$

where:

$P_t$  = Methane production in time t, in units of  $\frac{\text{Volume}}{\text{Time}}$   
 $M$  = Mass of refuse deposited during time t  
 $Y_t$  = Methane yield at time t, in units of  $\frac{\text{Volume}}{\text{Mass} \times \text{Time}}$

Based on the LFG generation modeling, SWT will recommend an appropriate size for the LFG Headers for efficient extraction of LFG.

#### Deliverables

- ◆ Landfill gas (LFG) generation model for the Toland Road Landfill Site; Recommendation for an appropriate size for the LFG Headers for efficient extraction of LFG.

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If you have any questions or require additional clarification or information, please contact me or Richard Genzel at 909-390-1328 or via email at [mac@swteng.com](mailto:mac@swteng.com) or [rmg@swteng.com](mailto:rmg@swteng.com).

Sincerely,

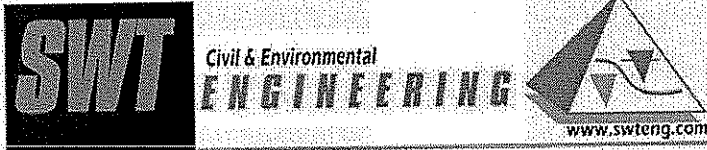


Michael A. Cullinane, P.E.  
Principal

C: Richard M. Genzel, P.E. - SWT

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Exhibit "B"



FEE SCHEDULE

<u>Staff Classification</u>	<u>Hourly Rate</u>
Principal .....	\$195
Principal Planner .....	\$185
Principal Engineer .....	\$185
Project Manager .....	\$155
Project Engineer .....	\$135
Engineer III/Senior Designer .....	\$125
Engineer II/Designer .....	\$110
Engineer I .....	\$90
CADD Operator .....	\$75
Senior Planner .....	\$125
Planner II .....	\$90
Planner I .....	\$75
Construction Manager .....	\$125
Project Coordinator .....	\$100
Administrative Assistant .....	\$75
Engineering Technician .....	\$75
Technician .....	\$60
Clerk .....	\$50

Overtime premium, if appropriate, will be invoiced at 50 percent of above rates.

Reimbursable charges (reproduction, courier charges, miscellaneous in-house expenses.) are invoiced at 5 percent of total labor charges, not requiring a breakdown (as approved by the client).

Other reimbursable charges are invoiced as follows:

Mileage .....	Federal Rate
Vehicle .....	.....\$6.00/hour
Subconsultants/Outside Services .....	.....Cost + 15 percent
Outside Out-of-pocket Expenses .....	.....Cost + 15 percent
Per Diem for Living Expenses .....	..... Federal Rate

Any non-recurring project specific charges not listed above will be invoiced at Cost + 15 percent, or as negotiated in the contract.

Fee Schedule effective through December 31, 2011

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