



STAFF REPORT

SAUSALITO CITY COUNCIL

AGENDA TITLE

Agreements for Special Inspections and Geotechnical Inspections for Public Safety Facilities Project

RECOMMENDED MOTION

Authorize the City Manager to: 1) execute an agreement with the Smith-Emery Company for Special Inspections for the Public Safety Facilities Project in a not-to-exceed amount of \$59,148.55; and 2) execute an agreement with CEL/Geosphere for Geotechnical Inspections in a not-to-exceed amount of \$32,866.00.



SUMMARY

Four bids were submitted from qualified contractors to provide *Special Inspections* for the Public Safety Facilities (PSF) project. The Smith-Emery Company provided the low bid of \$59,148. Staff recommends acceptance of this bid.

Three bids were submitted from qualified contractors for *Geotechnical Inspections*. Smith Emery provided a bid of \$29,543, and CEL/Geosphere submitted a bid of \$32,866. Staff recommends the slightly more expensive bid from CEL/Geosphere since CEL/Geosphere prepared the original geotechnical reports, has been involved in the design of the Project from the onset, and would be the continuous Geotechnical Engineer of Record for the project.

DISCUSSION

Various special and geotechnical inspections are required during construction of the PSF project. Special Inspections include observation and testing of welding, shear walls, concrete, and other structural details to confirm that the project is constructed in accordance with the plans and specifications. Geotechnical inspections include verification of existing soil conditions, soil compaction, and installation of piles and foundations in accordance with the plans and specifications. The special and geotechnical inspections reports are provided to the building inspector (i.e., Contra Costa County Building Inspection Division), Glass Architects, the general contractor (i.e., Alten Construction), and the City. If the reports conclude that work was not installed properly, the general contractor will be required to remove and replace the work at no cost to the City.

Swinerton Construction & Management, on behalf of the City, reviewed Statements of Qualifications from four Special and Geotechnical Inspection firms and determined that all

Item: 432
Meeting Date: 10/21/08
Page: 1

of the firms were sufficiently qualified to provide the inspections services required for the project. Swinerton sent Requests for Proposals to the qualified firms and received four proposals. The firms and their respective time and materials, not-to-exceed cost bids are listed below.

SPECIAL INSPECTIONS

Smith-Emery Company	\$59,148.55
CEL and Geosphere	\$63,586.00
Ninyo & Moore	\$72,900.00
ISI	\$87,083.52

GEOTECHNICAL INSPECTIONS

Smith-Emery Company	\$29,543.00
CEL/Geosphere	\$32,866.00
Ninyo & Moore	\$35,300.00
ISI	Did not submit a Geotechnical Proposal

Swinerton has reviewed the *Special Inspections* proposal submitted by the Smith-Emery Company and determined the proposal complies with the Special Inspection and Testing requirements.

Swinerton recommends that the City Council accept the *Geotechnical Inspections* Proposal submitted by CEL/Geosphere since CEL/Geosphere prepared the initial geotechnical reports for the project and has been involved in the project from the outset. As a result, CEL/Geosphere will be able to engage immediately. If Smith-Emery is selected for the *Geotechnical Inspections* there would be some ramp up time and potentially other issues since Smith-Emery was not involved in the initial geotechnical reports. In addition, Smith-Emery would need to assume responsibility as Geotechnical Inspector of Record. Swinerton believes that retaining CEL/Geosphere on a continuous basis from start to finish as Geotechnical Engineer of Record is preferable for the project. Glass Architects has indicated it would be beneficial to the project to retain CEL/Geosphere due to their previous involvement and research on the Project. Swinerton has reviewed the proposal from CEL/Geosphere and determined the proposal with the Geotechnical Inspection requirements.

FISCAL IMPACT

Funding will be provided from the General Obligation Bond Funds specifically approved by the voters for the PSF project.

RECOMMENDATION

Staff recommends the City Council to authorize the City Manager to: 1) execute an agreement with the Smith-Emery Company for Special Inspections for the Public Safety Facilities Project in a not-to-exceed amount of \$59,148.55; and 2) execute an agreement with CEL/Geosphere for Geotechnical Inspections in a not-to-exceed amount of \$32,866.00.

ATTACHMENTS

- 1 Proposal from the Smith-Emery Company, revised September 30, 2008
- 2 Proposal from CEL/Geosphere, revised October 15, 2008

PREPARED BY:



Loren Umbertis
Swinerton Management & Consulting

REVIEWED BY:

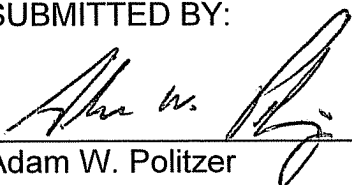


Jeremy Graves
Community Development Director

REVIEWED BY:

Laurie Ireland-Ashley
Interim Administrative Services Manager

SUBMITTED BY:



Adam W. Politzer
City Manager

CDD\Projects Address\Caledonia 29\CCsr 10-21-08-Special Insp



SMITH-EMERY COMPANY

MATERIALS TESTING AND INSPECTION SERVICES REQUEST FOR PROPOSAL

**Sausalito Public Safety Facilities
Sausalito, California**

**Mr. Loren Umbertis, Project Manager
City of Sausalito, Community Development
420 Litho Street
Sausalito, CA 94965**

REVISED SEPTEMBER 30, 2008

~~July 9, 2008~~

Janel Bronson - Vice President Marketing Northern California
(415) 642-7326 x-234 - e-mail: jbronson@sesanfrancisco.com
Bill Wood - Civil / Geotechnical Engineer
Patrick Morrison - Registered Geologist

482
5
**ATTACHMENT 1
(19 PAGES)**



Sausalito Public Safety Facilities

STATEMENT OF QUALIFICATION MATERIALS TESTING AND INSPECTION SERVICES

TABLE OF CONTENTS

1. **Smith-Emery Company Statement of Qualification**
2. **Insurance Certifications**
3. **Staff Qualifications / Resumes**
4. **Cost Estimates**
5. **Schedule of Rates**



Welcome to Smith-Emery

Smith-Emery Company was established in 1904 in San Francisco and is recognized as the oldest and largest independent materials testing laboratory on the West Coast. The Northern California Chapter of I.C.B.O. Special Inspection Committee also acknowledges Smith-Emery Company as a qualified material-testing laboratory. With over 300 employees in California, Oregon, and Shanghai PRC, Smith Emery Company serves as a single source of testing and inspection for all construction related services, from the *soil* to the *roof*.

Capability

Smith-Emery offers a full range of inspection, testing and failure analysis services:

- Post Tensioning
- Masonry Inspection and Tests
- Batch Plant Inspection
- Non-Destructive Examinations
- Concrete Placement
- Concrete Compression Testing
- Mix Design; Trial Batching
- Reinforcing Steel Placement
- Reinforcing Steel Sampling/Testing
- Welding, Field /Shop
- Mechanical/Electrical Inspection
- Ceramic Tile Testing & Failure Analysis
- Earthwork Inspection and Testing
- Asphalt Concrete Inspection and Testing
- Curtain Wall Testing
- Flatness Testing & Flat Jack Testing
- Seismic Evaluation
- Laboratory Mock-ups
- Physical Lab Testing
- Roofing Inspections and Testing
- Wood Structure Inspection
- Gypsum Inspection
- Metallurgical Lab Testing
- Chemical Lab Testing
- Fireproofing Inspection and Testing
- Specialized Services
- Geotechnical Consulting
- Environmental Consulting

In addition to Uniform Building Code 1701, our services will be in conformance with the following guidelines or regulations where applicable.

- AWS American Welding Society
- ICBO International Conference of Building Official
- ICC International Code Council
- ASTM American Society for Testing and Materials
- ACIL American Council of Independent Laboratories
- ANSI American National Standards Institute
- ACI American Concrete Institute
- ASNT American Standard of Non Destructive Testing
- AASHTO American Association of State Highway & Transportation Officials
- TISI Thai Industrial Standards Institute
- BS EN British and European Standards
- JIS Japanese Industrial Standards
- GB Chinese National Codes

482
7



Qualification & Accreditations

Lab Qualifications

Smith-Emery is qualified and approved by the following organizations.

- ICBO Committee (International Conference of Building Officials)
- Bureau of Building Inspection, City of San Francisco
- OSHPD (Office of Statewide Health Planning and Development) IE-1000-3
- County and City of Sacramento
- ORS (Office of Regulatory Services)
- BART (Bay Area Rapid Transit)
- Special Inspection Committee
(East Bay, Monterey & Peninsula ICBO Chapters)
- AASHTO
- United States Department of the Navy
- LEA #56 (Laboratory Evaluation Acceptance)

Laboratory Affiliations

Smith-Emery is periodically examined by the:

- Cement and Concrete Reference Laboratory (CCRL) by
National Bureau of Standard, Gaithersburg, Md.

Also, we cooperate with CCRL in their Reference Sample Program, testing concrete samples under controlled circumstances.

Accreditations

Smith-Emery is accredited to the following organizations.

- International Conference of Building Officials (I.C.B.O.)
- City and County of San Francisco
- U. S. Navy Facilities Command, and Sea Systems Command
- Corps of Engineers, Army
- California Department of Health; Sanitation and Radiation Department
- Nuclear Regulatory Commission
- International Association of Plumbing & Mechanical Officials
- City and County of Sacramento
- Ceramic Tile-Institute
- American Water Works Association: Water Quality Analyst
- Florida Light and Power

4B2
8



In-House Laboratory

Curing Room

Smith Emery has recently constructed a new state-of-the-art Concrete Sample Curing Room. Temperature and moisture are controlled by a digital humidistat air/water spray system to pay strict adherence to ASTM C-511 requirements. This 16' by 26' storage/curing facility has a capacity of over 3,000 cylinders, more than enough for a number of large-scale projects at one time.

Asphalt Testing Equipment

Our new asphalt testing laboratory is ready to handle any needs for your roadway, taxiway or parking lot projects. Our laboratory features a new Cox California Kneading Compactor. This Cox machine enables us to perform asphalt stability tests, density tests, asphalt "S" values, and soil "R" values in-house. In addition, we can perform maximum marshall, extraction gradation, and specific gravity testing. Currently we are part of the AASHTO Sample Proficiency Testing Program.

Special Testing Capabilities

Mr. Wylie Stevenson, our Manager of Specialized Testing and Investigations, directs our laboratory staff during all specialized testing including brick shear testing for unreinforced masonry buildings, window water penetration/air intrusion testing, and field proofloading.

Low Break/Failure Notification Procedures

If a sample does fail to achieve the designed strength we will contact the project structural engineer or owner's designated representative the same day.

Tool/Equipment Maintenance Program

All laboratory/field equipment is checked and calibrated in accordance with ASTM, ACI, AWS, or project specific requirements. Our in-house quality control program ensures that equipment not in good working condition be repaired or replaced.

Laboratory Safety Program

Our laboratory safety program for in-house personnel includes safety training and regular safety equipment replacement. Under direction of the laboratory quality control/safety manager, Allen Miranda, we regularly have independent surveys of the laboratory including new safety equipment training for laboratory and inspection personnel.

4B2
9



Dispatch

Our dispatcher, Mr. Frank Iriarte, serves as a first level point of contact for our client's field offices. Mr. Iriarte tracks inspection schedules, dispatches inspectors with the proper certifications, coordinates the delivery of testing and sampling equipment to the project site, and notifies inspectors of any special field requirements before the inspector is on site. Multi-disciplined inspectors will be dispatched whenever applicable to minimize the requirement for additional inspectors on site.

Smith-Emery has a proven track record of facilitating "same day" requests for inspection. Typically we require 24 hour notification for field inspections. Requests for sample pick-ups will be handled by one of our roaming sample pick-up trucks. These trucks are equipped with specifically designed sample racks to eliminate any wear or damage to the samples when in transport.

Marketing/Project Management

Ms Janel Bronson, V.P., heads our marketing department in Northern California. One of the most important responsibilities for our marketing department professional is to function as the project liaison. Initially we make contact, coordinate estimates, develop the proposals, and arrange for the signing of the contract. Marketing sets up the distribution of technical reports and invoicing. After a project start-up meeting is conducted and the project set-up is complete, the marketing representative will coordinate with engineering and inspection for technical supervision throughout the contract. The marketing representative remains available to the client for the duration of the project in the capacity of project manager, assisting in your needs right through to the final affidavit.

Budget Control/Invoicing

Costs can be monitored on a monthly or weekly basis on large jobs. We track actual vs. budgeted costs and man-hours. Our invoices reflect the date the work was performed, the employee number of the inspector, the services performed, and a reference to the report number. They also reflect the budget-to-date and the amount previously billed along with the current invoice amount



Project Experience

California Academy of Sciences Golden Gate Park

Date of Construction: 2005 - Current
Owner: T.J. Reagan, Inc – Terry Reagan – 415-905-5366
Contractor: Webcor
Architect: Renzo Piano, Genoa, Italy / Chong Partners, SF
Structural Engineer: Ove Arup
Services Performed: Steel, Concrete, Shotcrete, Masonry
Reviewing Agency: City of San Francisco Bureau of Inspection

Golden Gate Park Music Concourse Underground Parking Structure

Date of Construction: 2004- 2005
Owner: MCCP – Richard Soohoo - 415-335-5584
Contractor: Swinerton Builders
Architect: Gordon H. Chong & Partners
Structural Engineer: Walker Parking Consultants
Services Performed: Cast in Place Concrete, Post Tension Concrete, Shotcrete, Masonry, Anchors and Waterproofing
Reviewing Agency: City of San Francisco Bureau of Inspection

The Cliff House Renovation and Restoration

Date of Construction: Investigation 2002 / Construction 2003-2004
Owner: National Park Service – Carrie Strahan – 415-561-4931
Contractor: Nibbi Brothers
Architect: C. David Robinson Architects
Structural Engineer: SOHA
Services Performed: Steel, Concrete, Shotcrete, Proofloading, Ultrasonic Testing
Waterproofing, Fireproofing
Reviewing Agency: National Park Service / City of San Francisco

The J. David Gladstone Institute – Mission Bay, San Francisco

Date of Construction: 2003-2004
Owner: Mezzatesta-Sklar – Todd Sklar – 415-282-3930
Contractor: Rudolph & Sletten – Patrick Morrissey – 415-412-5355
Architect: NBBJ – Steve Ryder – 415-981-1100
Structural Engineer: Rutherford & Chekene – Joe Ungerer – 510-740-3200
Services Performed: Steel, Concrete, Shotcrete, Proofloading, Fireproofing, Roofing, Masonry, Ultrasonic Testing, Waterproofing
Reviewing Agency: City of San Francisco Bureau of Inspection

4B2
11



Project Experience

- San Francisco / Oakland Bay Bridge East Span Temporary Bypass Structure**
Date of Construction: 2004-Current **Shanghai, China / Shop Fabrication**
Owner: Caltrans – Dustin Allred – 858-278-3600 / 858-699-0514
Contractor: CC Myers – Bob Coupe – 916-635-9370
Structural Engineer: Imbsen & Associates
Construction Value: \$90 Million
Services Performed: Developed Quality Control Plan. Visual Welding Inspection, UT, X-ray, and Quality Control services for the shop fabrication Inspection at Shang Hai Grand Tower, China.
Reviewing Agency: Caltrans
- San Francisco / Oakland Bay Bridge East Span Skyway**
Date of Construction: 2003-2007
Owner: Caltrans – Brian Maroney – 916-227-8867
Contractor: Kiewit / FCI / Manson
Structural Engineer: T.Y. Lin International
Construction Value: \$1.2 Billion
Services Performed: Pre cast Concrete inspection, Creep of concrete in compression, Drying Shrinkage, Aggregate testing, Sieve Analysis, Durability, Modules of elasticity, relative mortar strength.
Reviewing Agency: Caltrans
- Muni New LRV East Vehicle Maintenance & Operations Facility**
Date of Construction: 2004-Current
Owner: San Francisco Municipal Railway–Dennis Herrera-415-706-6108
Contractor: McCarthy
Structural Engineer: AGS / GFI & Association
Construction Value: \$100 Million
Services Performed: Geotechnical, Environmental Services, Soils testing and inspection, Concrete, Masonry, Structural Steel inspection.
Reviewing Agency: San Francisco Municipal Railway/Federal Transit Administration
- California Pacific Medical Center New MOB & Davies Hospital Renovations**
Date of Construction: 2007-Current
Owner: CPMC – Ken Howard – 415-205-6432
Contractor: Herrero Contractors, Inc.
Structural Engineer: Rutherford & Chekene
Construction Value: \$200 Million
Services Performed: Concrete, Shotcrete, Masonry, Structural Steel, Ultrasonic & Mag Particle testing, Pull testing, Fireproofing and Roofing
Reviewing Agency: City of San Francisco / OSHPD

482
12

SMITH-EMERY COMPANY

**SAUSALITO
PUBLIC SAFETY FACILITIES**

Police Station & Fire Station					
Sausalito, California					
Special Inspection and Materials Testing Budget Estimate					7/9/2008
Plans Dated: 06/16/08					
Schedule Dated: None					
Specification Dated: 06/16/08					
Inspections / Testing					
	DAYS	SAMPLES	HOURS	RATE	ESTIMATED TOTAL
Concrete (CIP)					
Reinforcing Steel / Bolts in Concrete	21		168	\$68.50	\$11,508.00
Concrete Placement	21		168	\$68.50	\$11,508.00
Cylinder Compression Tests (4/100cuys)		92		\$15.00	\$1,380.00
Pick-up Concrete Cylinders		92		\$8.85	\$814.20
Mix Designs		5		\$80.00	\$400.00
Pre-Cast Concrete					
Plant Inspections	1		8	\$68.50	\$548.00
Masonry					
Installation	12		96	\$68.50	\$6,576.00
Preconstruction Prisms		5		\$135.70	\$678.50
Pick-up Prisms		5		\$8.85	\$44.25
Mortar Samples		9		\$20.00	\$180.00
Grout Samples		9		\$20.00	\$180.00
Pick-up Samples		16		\$8.85	\$141.60
Mix Design Review		1		\$80.00	\$80.00
Structural Steel (welding & high strength bolting, metal deck & stairs)					
Field Inspection	30		240	\$68.50	\$16,440.00
Shop Inspection -- Local Shop	15		120	\$68.50	\$8,220.00
WPS Review	2			\$80.00	\$160.00
Final Letter					
Assume One Affidavit		1		\$290.00	\$290.00
Subtotal Inspection Budget	102	235	500		\$59,148.55

482
13



**Sausalito Public Safety Facilities
Clarification of Rates**

• ICBO/AWS Certified Inspectors	\$68.50/hr
• Compression Tests	\$15.00/ea
• Mix Design Review	\$80.00/ea
• WPS Review	\$80.00/ea
• Final Affidavit	\$290.00/ea
• Pick Up Samples	\$ 8.85/ea
• Travel Time	No Charge (Included in hr. rate)
• Mileage	No Charge (Included in hr. rate)
• Equipment	No Charge (Included in hr. rate)
• Reimbursable Expenses	None
• Misc. Mark-ups	None
• Project Management	No Charge
• Administrative Support	No Charge
• Reports	No Charge
• Show-Up Time	2 hr. Charge (No work performed)
• Minimums	4 / 8 hr. Charges
• Work Over 8 hours and Saturdays	Time & One half
• Sundays and Over 8 hours on Saturday	Double Time
• Holidays	Triple Time
• Swing / Night Shift Shop Fabrication	12.5%
• Per Diem (Out of State Work)	\$100.00 / day per Union Contract

482
14



Geosphere Consultants, Inc.

AN ETS COMPANY

Geotechnical Engineering • Engineering Geology
Environmental Management • Water Resources

July 2, 2008
Revised October 15, 2008

City of Sausalito
c/o Community Development
420 Litho Street
Sausalito, California 94965

Attention: Loren Umbertis – Project Manager

Subject: **Proposal to Provide Geotechnical Construction Monitoring Services**
Public Safety Facilities Project
Caledonia Street and Johnson Street
Sausalito, California
Geosphere Proposal No. 93-01749-D

References: 1) Geotechnical Engineering and Geologic Hazards Study, prepared by CEL, dated December 2, 2005.

Dear Mr. Umbertis:

Geosphere Consultants, Inc., Consolidated Engineering Laboratories (CEL) Geotechnical Division, is providing this proposal for geotechnical construction monitoring services for the subject site. Geosphere is currently the Geotechnical Engineer-of-Record for the project, and has been providing consultation services throughout the project design stage. CEL prepared Reference #1, as well as numerous supplemental recommendation letters. This proposal is based on a review of the various geotechnical documents prepared by CEL, a review of the project plans prepared by BKF, Dasse, and Glass Architects. It is our understanding that the project is to consist of the construction of a new 11,000 sf, two-story Fire Station and 9,000 sf, two-story Police Station. Because of Geosphere's knowledge of the site condition and project's scope, and its prior working relationship with the City of Sausalito and Swinerton, we feel Geosphere is the most qualified firm to provide the necessary geotechnical monitoring during construction.

Our scope of work would involve:

- Observation and testing during building pad grading,
- Observation and testing of subgrade and baserock grading,
- Observation and testing of utility trench and retaining wall backfilling,
- Observation of foundation excavations for police station,
- Observation of pile installation for fire station,
- Geologic and geotechnical observation of retaining wall cuts,
- Laboratory testing,
- Consultation, letters, project management, plan review, site visits, and daily field report review.

Based on discussions with you, it is our understanding that a construction schedule is not available for our review. For estimating purposes we are assuming the following construction schedule:

- Shoring Installation Observation , Police Station – 5 days
- Mass Grading for Fire Station Pad – 2 days
- Mass Grading for Police Station -2 days

482
15



- Underground Utilities – On-site – 10 days
- Underground Utilities – Off-site/street connections – 5 days
- Pile Installation-Fire Station – 10 days
- Footing Observation – Police Station – 2 days

Shoring Observation

During the shoring operations, we will provide an engineering technician to provide construction observation services. It is our understanding that shoring may consist of a soil nail with shotcrete shoring or a soldier beam and lagging shoring with tie-backs. Either system will require professional engineering observation to evaluate the tie-back or nail soil and rock conditions and provide an opinion regarding the consistency with engineering assumptions. We will provide a technician working under the supervision of a registered Geotechnical Engineer to provide these services. In addition the engineer will provide intermittent site visits as well as technical support should it be required during this phase of work.

Mass Grading

The mass grading for the Police and Fire stations will be fairly minimal. The Fire Station grading will consist of re-compacting the existing site and placing appropriate import material to develop a finished pad. The Police Station grading will consist of demolition of the existing concrete foundation and re-grading to the design pad grades. During the grading, we will provide an engineering technician to observe the operations and perform density tests using a nuclear density gauge. Technical and engineering support will be provided by our Technician Supervisor and our Registered Geotechnical Engineer.

Utility Backfill

Utility construction for this project will consist of utilities within the building pad and connections to utilities within the street. For the utility construction we will provide an engineering technician to observe and test the backfill of these trenches. Intermittent quality control will be provided by our Technician Supervisor.

Pile Installation

The Fire Station project is to be founded on a tubex type of pile foundation. The geologic conditions for this building consist of fill over bay mud over slopping bedrock. As such, this is a complex geologic site. We have been involved with the design of this foundation system for the last five years. The observation services that we are proposing to perform are to confirm that the design assumptions that we have made are consistent with the actual conditions. In particular, there is a specified minimum embedment into the underlying bedrock that we will confirm has been met. We will provide a Staff Engineer to observe the pile placement under the supervision of a Registered Geotechnical Engineer.

Footing Observation

The Police Station is located in variable bearing conditions consisting of a cut into bedrock in the rear north side and fill and soil over bedrock in the front south side. As such, the differential bearing conditions are an important engineering element of this project. We propose to provide a Staff Engineer to observe the bearing conditions and confirm that the correct over-excavation of the soils and bedrock is being performed.

Engineering Consultation

During the construction of the project, we anticipate that supplemental design issues will require engineering assistance. Based on our experience with similar projects, these items would include:

4B2
16



- Response to contractor RFI's
- Response to contractor Submittals
- Supplemental engineering recommendations based on changed conditions or design changes
- Attendance at design team meetings

We will provide engineering support services to respond to the contractor and design teams needs.

Description	Days	Rate	Units	Estimated Fees
<i>Shoring Observation</i>				
Engineering Technician	5	\$ 78	40	\$ 3,120.00
Senior Engineer	2	\$160	8	\$ 1,280.00
Subtotal				\$ 4,400.00
<i>Mass Grading</i>				
Engineering Technician	4	\$ 78	32	\$ 2,496.00
Senior Engineer	1	\$160	4	\$ 640.00
Supervising Technician	1	\$ 85	4	\$ 340.00
Maximum Density/Optimum Moisture		\$300	2	\$ 600.00
Atterberg Limits		\$220	2	\$ 440.00
Subtotal				\$ 4,516.00
<i>Underground Utilities</i>				
Engineering Technician	10	\$ 78	80	\$ 6,240.00
Supervising Technician	2	\$ 85	8	\$ 680.00
Maximum Density/Optimum Moisture		\$300	2	\$ 600.00
Subtotal				\$ 7,520.00
<i>Pile Observation</i>				
Staff Engineer	10	\$120	80	\$ 9,600.00
Senior Engineer	2	\$160	8	\$ 1,280.00
Subtotal				\$10,880.00
<i>Footing Observation</i>				
Staff Engineer	2	\$120	8	\$ 960.00
Subtotal				\$ 960.00
<i>Engineering Support</i>				
Senior Engineer		\$160	24	\$ 3,840.00
Administrative personnel		\$ 65	5	\$ 325.00
Supervising Technician		\$ 85	5	\$ 425.00
Subtotal				\$ 4,590.00
Grand Total				\$32,866.00

482
17



Geosphere Consultants, Inc.

Geosphere Proposal No. 93-01749-D

July 2, 2008

Revised October 15, 2008

This estimate of fees is based on an assumed schedule based on our experience with similar projects. We strongly recommend that the proposal be re-evaluated when a final schedule is available. Our technician time on-site assumes that they will have a net time of six hours per day on-site with travel time balancing out the remaining two hours of the day. This timing has been used to create cost efficiency to the client. If a total of eight hours per full time day is required, additional travel time of two hours per day will be charged.


Mike Wissink will handle Geotechnical dispatching. Please provide at least 24-hour notice for inspection requests. It is recommended that **Geosphere** collect onsite soil samples at least 48-hours prior to the first compaction testing request to ensure maximum density/optimum moisture determinations are ready during testing. Otherwise, providing compaction test results to the onsite team will be delayed slightly while the laboratory prepares the samples. Special inspections dispatching will be go through CEL's main dispatch.

If this proposal is acceptable, please sign and return both copies of the attached Professional Services Agreement to us. A fully executed copy will be returned to you for your records. Otherwise, send a contract for our review. If you have any questions regarding this proposal, please contact the undersigned at (925) 314-7100, ejs@geosphereinc.net.

Sincerely,
GEOSPHERE CONSULTANTS, INC.

Marc Hachey, CE 2475
Project Engineering Geologist

Gregory R. Hanson, GE 2304
Senior Geotechnical Engineer


Eric J. Swenson, GE 2474
Principal Geotechnical Engineer

Attachment: Fee Schedule
Professional Services Agreement
Report Distribution

Distribution: 2 plus PDF to Addressee (lumbertis@swinerton.com)
1 PDF to Mike Wissink

MAH/GRH/EJS:pmf
R:\Geotech Projects by Number\1700-1799\83-01749-Police Fire\93-01749-D-Construction\93-01749-D Construction Prop-revised.doc



FEE SCHEDULE

PROFESSIONAL CONSULTING AND CONSTRUCTION OBSERVATION AND TESTING SERVICES

Effective October 1, 2008 through April 30, 2009

Task Code	PERSONNEL	UNIT RATE	UNIT
X1401/X2000	Principal Engineer/Geologist	\$ 200.00	hour
X1500/X2100	Senior Engineer/Geologist	\$ 160.00	hour
X1600/X2200	Project Engineer/Geologist	\$ 150.00	hour
X1700/X2300	Staff Engineer/Geologist	\$ 120.00	hour
X1900/X2500	Assistant Engineer	\$ 95.00	hour
X2600	Supervising Technician	\$ 85.00	hour
X3300	Field Technician	\$ 78.00	hour
X2900	Laboratory Technician	\$ 70.00	hour
X3000	Assistant Technician/Inspector	\$ 70.00	hour
X3600	Administrative	\$ 65.00	hour
	Drafting	\$ 80.00	hour
	Depositions, minimum 4 hours	\$ 300.00	hour
	Expert Witness, minimum 4 hours	\$ 400.00	hour
	Nuclear Gauge	\$ 5.00	hour
	Vehicle	\$ 5.00	hour
SOIL AND BASE MATERIALS		UNIT RATE*	UNIT
Moisture and Density Relationships			
02019	Compaction, Standard Proctor, ASTM D698	\$ 265.00	each
02018	Compaction, Modified Proctor, ASTM D1557	\$ 300.00	each
02016	Compaction, Checkpoint, ASTM D1557	\$ 150.00	each
02014/02015	Compaction, California Impact, CT216	\$ 300.00	each
02046/02093	Moisture/Density, Sample Tubes, ASTM D2216/D2937	\$ 30.00	each
02088	Moisture Content, Bulk Sample, ASTM D2216	\$ 20.00	each
Particle Size Analysis			
02074	Dry Sieve to #200, ASTM D422/CT117	\$ 150.00	each
	Dry Sieve Analysis/Hydrometer, ASTM D422	\$ 268.00	each
	Hydrometer, ASTM D422	\$ 168.00	each
02076	Wet Sieve Analysis to #200, ASTM D1140	\$ 65.00	each
02075	Sieve Analysis, Bulk Sample Gradation, ASTM C136/CT202	\$ 180.00	each
Soil Characteristics			
02040	Atterberg Limits (Plasticity Index), ASTM D4318 / CT204	\$ 220.00	each
02077	Soil Classification, ASTM D2487	\$ 350.00	each
02081	Specific Gravity, D854	\$ 110.00	each
02058	Permeability of Granular Soils (Constant Head) ASTM D2434	\$ 350.00	each
02080	Permeability, Flexible Wall, Cohesive Soil, ASTM D5084	Quotation upon request	
02081	Permeability, Rigid Piston Driven, Cohesive Soil, ASTM 5856	Quotation upon request	
Volume Change			
02047	Consolidation, Method A Constant Load, 7 load increments, ASTM D2435	\$ 400.00	each
02048	Consolidation, Method A Constant Load, per load increment, ASTM D2435	\$ 60.00	each
02049	Consolidation, Method B Timed per load increment, ASTM D2435	\$ 500.00	each
02051	Consolidation/Swell, Cohesive Soil, per point, ASTM D4546, Methods A and B	\$ 300.00	each
02052	Consolidation/Swell, Cohesive Soil, per point, ASTM D4546, Method C	\$ 300.00	each
02013	Collapse Potential, ASTM D5333	\$ 180.00	each
02037	Expansion Index Test (UBC 29-2)	\$ 300.00	each
02050	Expansion, Shrinkage, and Uplift Pressure, ASTM D3877	\$ 400.00	each

482
19



FEE SCHEDULE

PROFESSIONAL CONSULTING AND CONSTRUCTION OBSERVATION AND TESTING SERVICES

Effective October 1, 2008 through April 30, 2009

Soil Strength

02027	Direct Shear, 3 points, Unconsolidated-Undrained, Q-test, ASTM D3080	\$	350.00	each
02031	Direct Shear, additional points, Unconsolidated-Undrained, Q-test	\$	100.00	each
02028	Direct Shear, 3 points, Consolidated-Undrained, R-Test	\$	600.00	each
02029	Direct Shear, 3 points, Consolidated-Drained, ASTM D3080	\$	1,000.00	each
02030	Direct Shear, 3 points, Residual, ASTM D6467	\$	800.00	each
02034	Direct Shear, per point, Residual, Each Additional Cycle, ASTM D6467	\$	350.00	each
02083	Unconfined Compressive Strength, ASTM D2166	\$	120.00	each
02084	Unconfined Compressive Strength (lime or cement treated), CT373	\$	400.00	each
	Unconfined Compression, Field Prepared CTB, per point ASTM D558, D1632, D1633	\$	180.00	each
02003/02004	Triaxial			Quotation upon request

Subgrade Soil and Baserock

02006	California Bearing Ratio, 1 point, ASTM D1883	\$	200.00	each
02007	California Bearing Ratio, 3 points (specified moisture), ASTM D1883	\$	600.00	each
02008	California Bearing Ratio, 3 points (96 hour soak), ASTM D1883	\$	400.00	each
02065/02068	"R" Value (no additives), ASTM D2844 / CT301	\$	300.00	each
02067	"R" Value (lime, cement, other additives) CT301	\$	350.00	each
02010	Compression, Cement Treated Base (Including Preparation), Cal 312	\$	170.00	each
02071/02072	Sand Equivalent, ASTM D2419 / CT217	\$	195.00	each
02214	Durability, ASTM D3744	\$	120.00	each

Corrosivity

02024	Corrosivity, Water Soluble Sulfate, ASTM D4327	\$	100.00	each
02062	pH, ASTM 4972	\$	40.00	each
02069/02070	Lab Resistivity	\$	90.00	each
02022	Corrosivity (pH, resistivity, chlorides, sulfate, sulfide) D4972, G57, D4327, D4658M	\$	300.00	each
02023	Corrosivity, Caltrans (pH, chlorides, sulfate, resistivity) CT 643, 417, 422	\$	300.00	each

AGGREGATES

UNIT RATE* UNIT

Sieve Analysis

02074	Bulk Sample Gradation (coarse or fine), ASTM C 136	\$	160.00	each
02238	Material Finer than #200 Sieve, ASTM C 117	\$	70.00	each
02075	Bulk Sample Gradation, Cal 202	\$	180.00	each
02240	Specific Gravity (coarse), ASTM C 127/Cal 206	\$	90.00	each
02241	Specific Gravity (fine), ASTM C 128/Cal 207	\$	110.00	each
02205	Absorption, Sand or Gravel, ASTM C 127/ASTM C 140	\$	80.00	each

AGGREGATES (continued)

UNIT RATE* UNIT

02226	Organic Impurities in Concrete Sand, ASTM C 88 or ASTM C40	\$	75.00	each
02200/02204	L.A. Rattler, ASTM C 131 or C 535/Cal 211	\$	300.00	each
02244	Sulfate Soundness (per sieve), ASTM C 88	\$	140.00	each
02248	Unit Weight of Aggregates, ASTM C 29	\$	85.00	each
07009	Hardness, ASTM D 1865	\$	120.00	each
02212	Crushed Particles, Cal 205	\$	160.00	each
02012	Cleaness Value, Cal 227 or Cal 217	\$	120.00	each
02214/02215	Durability ASTM D 3744/Cal 229	\$	120.00	each
02224	Moisture Content of Aggregate ASTM C 29	\$	70.00	each

482
20



FEE SCHEDULE

PROFESSIONAL CONSULTING AND CONSTRUCTION OBSERVATION AND TESTING SERVICES

Effective October 1, 2008 through April 30, 2009

ASPHALTIC CEMENT		UNIT RATE*	UNIT
02374	Penetration of Bituminous Materials at 77°F, ASTM D5/AASHTO T49	\$ 71.00	each
02375	Penetration of Bituminous Materials at 32°F to 158°F, ASTM D 5/AASHTO T49	\$ 105.00	each
02360	Kinematic Viscosity of Asphalt, ASTM D 2170/AASHTO T201	\$ 170.00	each
02300	Absolute Viscosity of Asphalt, ASTM D2170/AASHTO T201/ASTM D2171	\$ 170.00	each
02360	Viscosity (Asphalt Institute Method) Kinematic ASTM D2170	\$ 170.00	each
02380	Rolling Thin Film Test, ASTM 2872/Cal 346/AASHTO T240	\$ 180.00	each
02338	Residue by Evaporation, ASTM D244/AASHTO T59	\$ 95.00	each
	Extraction and Recovery, ASTM D2172/ASTM D 1856	\$ 646.00	each
MISCELLANEOUS GEOTECHNICAL CHARGES		UNIT RATE	UNIT
	All Other Direct Project Expenses (such as contract drilling and backhoe services, special equipment rental, commercial travel, protective clothing, shipping, etc.)		Cost + 15%
BASIS OF CHARGES		UNIT RATE	UNIT
	The rates herein will be in effect through December 31, 2008. Thereafter, the unit rates are subject to an increase of 5 percent (5%) per year to mitigate the annual operating cost increases.		
	Work Over 8 Hours per Day, or on Saturdays		Time and One-Half Double Time
	Work Over 12 Hours		Double Time
	Work on Sundays/Holidays		Double Time
	Swing or Graveyard Shift Premium	\$ 8.00	hour
	Work from 0 to 4 Hours (technician services only)		4-hour Minimum Billing
	Work from 4 to 8 Hours (technician services only)		8-hour Minimum Billing
	Show-Up Time		2-hour Minimum Billing
SU	Sample Pick-Up	\$ 78.00	hour
21022	Trip Charge	\$ 78.00	trip
21033	Laboratory Testing - Rush Fee		Add 50% to Testing Cost
	Reimbursables		Cost + 15%
	QA/QC Plan Written Procedures		Quotation on Request
	Travel Time		Basic Hourly Rate
	Mileage	\$ 0.55	mile
	Per-diem, Including Lodging	\$ 84.00	day

482
21