



AGENDA REPORT

Meeting Date: March 2, 2010
Item Number: F-5
To: Honorable Parking Authority Members
From: Alan Schneider, Director of Project Administration
Allen M. Rubenstein, Project Manager *AMR*
Subject: APPROVAL OF THE AGREEMENT BETWEEN THE PARKING AUTHORITY OF THE CITY OF BEVERLY HILLS AND TWINING LABORATORIES OF SOUTHERN CALIFORNIA, INC. FOR CONSTRUCTION INSPECTION AND MATERIAL TESTING SERVICES FOR THE PARKING STRUCTURE LOCATED AT 455 NORTH CRESCENT DRIVE; AND
APPROVAL OF A PURCHASE ORDER IN THE AMOUNT OF \$225,000 TO TWINING LABORATORIES OF SOUTHERN CALIFORNIA, INC. FOR THESE SERVICES
Attachments: 1. Agreement

RECOMMENDATION

Staff recommends that the Parking Authority of the City of Beverly Hills move to approve the Agreement with Twining Laboratories of Southern California, Inc. for construction inspection and material testing services related to the Crescent Garage in the amount of \$175,000, and a contingency of \$50,000, and approve a purchase order in the amount of \$225,000.

INTRODUCTION

The building code and current practice require the inspection and testing of the building materials during construction. Twining Laboratories has performed these services on other City projects in a satisfactory manner, and has been selected for this project on the basis of competitive fees.

DISCUSSION

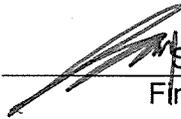
The Crescent Garage will be required to resist considerable forces on its walls to retain the earth, and to support heavy loads on the roof imposed by the public street, lawn and trees above. It is essential that the materials meet the design strength and are placed

properly in the structure. To assure that these goals are attained the Building Code requires continuous inspection and periodic testing of critical structural elements for compliance with the specifications.

The inspection services are provided on an hourly basis. The fee for testing is based on a contractual fee per test schedule. The number of hours and tests will be determined by the construction progress and other factors beyond the control of the Consultant. For this reason the best estimate of the costs of these services is supplemented by a City-controlled contingency of \$50,000 for unanticipated events that may require additional inspection or testing.

FISCAL IMPACT

Funding for these services has been budgeted from the FY 09-10 Capital Improvement Program budget for the North Crescent Garage, project #0897.



Scott G. Miller
Finance Approval



David D. Gustavson *AM*
Approved By

Attachment 1

Agreement

AGREEMENT BETWEEN THE PARKING AUTHORITY OF THE CITY OF
BEVERLY HILLS AND TWINING LABORATORIES OF SOUTHERN
CALIFORNIA, INC. FOR CONSTRUCTION INSPECTION AND
MATERIAL TESTING SERVICES FOR THE PARKING STRUCTURE
LOCATED AT 455 NORTH CRESCENT DRIVE

NAME OF CONSULTANT: TWINING LABORATORIES OF SOUTHERN
CALIFORNIA, INC.

RESPONSIBLE PRINCIPAL OF CONSULTANT: Steven Schiffer, Vice President

CONSULTANT'S ADDRESS: 2883 East Spring Street, Third Floor
Long Beach, California 90806
Attention: Steven Schiffer, Vice President

AUTHORITY'S ADDRESS: The Parking Authority of the City of Beverly Hills
455 N. Rexford Drive
Beverly Hills, CA 90210
Attention: David D. Gustavson,
Director of Public Works & Transportation

COMMENCEMENT DATE: Upon receipt of written Notice to Proceed

TERMINATION DATE: Upon final acceptance of the Project by City Council,
but no later than June 30, 2012

CONSIDERATION: Fee not to exceed: \$175,000, as more fully described in
Exhibit B-1, and based on rates for time, materials,
testing and inspection set forth in Exhibit B-2

Contingency for additional work not to exceed \$50,000,
as more fully described in B-1

Total Fee and Contingency not to exceed \$225,000
(includes all applicable sales tax)

AGREEMENT BETWEEN THE PARKING AUTHORITY OF THE CITY OF
BEVERLY HILLS AND TWINING LABORATORIES OF SOUTHERN
CALIFORNIA, INC. FOR CONSTRUCTION INSPECTION AND
MATERIAL TESTING SERVICES FOR THE PARKING STRUCTURE
LOCATED AT 455 NORTH CRESCENT DRIVE

THIS AGREEMENT is made by and between the Parking Authority of the City of Beverly Hills (hereinafter called "AUTHORITY"), and TWINING LABORATORIES OF SOUTHERN CALIFORNIA, INC. (hereinafter called "CONSULTANT"), a CA corporation.

RECITALS

A. . AUTHORITY desires to construct a multi-level subterranean garage at 455 North Crescent Drive under the west lawn of City Hall and the adjacent street. It is designed by International Parking Design, Inc. and will be a reinforced concrete poured-in-place/shotcrete structure. The garage will be approximately from 15 to 20 feet from City Hall, adjacent to a new theater to be built on the Post Office block and adjacent to both North and South Santa Monica Boulevards. Crescent Drive and the City Hall lawn will both be replaced above the parking facility.

B. CONSULTANT represents that it is licensed, qualified and able to perform the services.

NOW, THEREFORE, the parties agree as follows:

Section 1. Contractor's Services. CONSULTANT shall perform and complete in good and workmanlike manner the Scope of Work described in Exhibit A in a manner satisfactory to AUTHORITY.

Section 2. Time of Performance. CONSULTANT shall commence its services under this Agreement upon receipt of a written notice to proceed from AUTHORITY. CONSULTANT shall perform the services on or by the Termination Date set forth above, unless extended in writing by the City Manager or his designee pursuant to the same terms and conditions of the Agreement.

Section 3. Compensation.

(a) Compensation. AUTHORITY agrees to compensate CONSULTANT for the services and/or goods provides under this Agreement, and CONSULTANT agrees to accept in full satisfaction for such services, a sum not to exceed the Consideration set forth above and more particularly described in Exhibit B-1, attached hereto and incorporated herein, based on the hourly rates set forth in Exhibit B-2.

(b) Expenses. The amount set forth in paragraph A shall include reimbursement for all actual and necessary expenditures reasonably incurred in the performance of this Agreement (including, but not limited to, all labor, materials, delivery, tax, assembly, and installation, as applicable). There shall be no claims for additional compensation for reimbursable expenses.

(c) Additional Services. City may from time to time require CONSULTANT to perform additional services not included in the Scope of Services. Such requests for additional services shall be made by City in writing and agreed upon by both parties in writing.

Section 4. Method of Payment. Unless otherwise provided for herein, CONSULTANT shall submit to City a detailed invoice, on a monthly basis or less frequently as approved by City, for the services performed pursuant to this Agreement. Each invoice shall itemize the services rendered during the billing period reflecting the actual amount of work completed or the percentage of the completed work and the amount due. Within 30 days of receipt of each invoice, AUTHORITY shall pay all undisputed amounts included on the invoice.

Section 5. Independent Contractor. CONSULTANT is and shall at all times remain, as to AUTHORITY, a wholly independent contractor. Neither AUTHORITY nor any of its agents shall have control over the conduct of CONSULTANT or any of CONSULTANT's employees, except as herein set forth. CONSULTANT shall not, at any time, or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of AUTHORITY.

Section 6. Assignment. This Agreement shall not be assigned in whole or in part by CONSULTANT without the prior written approval of AUTHORITY. Any attempt by CONSULTANT to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

Section 7. Responsible Principal(s)

(a) CONSULTANT's Responsible Principal set forth above shall be principally responsible for CONSULTANT's obligations under this Agreement and shall serve as principal liaison between AUTHORITY and CONSULTANT. Designation of another Responsible by CONSULTANT shall not be made without prior written consent of AUTHORITY.

(b) AUTHORITY's Responsible Principal shall be the City Manager or his designee set forth above who shall administer the terms of the Agreement on behalf of AUTHORITY.

Section 8. Personnel. CONSULTANT represents that it has, or shall secure at its own expense, all personnel required to perform CONSULTANT's services under this Agreement. All personnel engaged in the work shall be qualified to perform such work.

Section 9. Changes to the Scope of Services. AUTHORITY may by written notice initiate any change to the scope of services. The cost of any change order must be agreed to by both parties in writing.

Section 10. Interests of CONSULTANT. CONSULTANT affirms that it presently has no interest and shall not have any interest, direct or indirect, which would conflict in any manner with the performance of the services contemplated by this Agreement. No person having any such interest shall be employed by or be associated with CONSULTANT.

Section 11. Insurance.

(a) CONSULTANT shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, a policy or policies of Comprehensive General Liability Insurance, with minimum limits of Two Million Dollars (\$2,000,000) for each occurrence,

combined single limit, against any personal injury, death, loss or damage resulting from the wrongful or negligent acts by CONSULTANT.

(b) CONSULTANT shall at all times during the term of this Agreement carry, maintain, and keep in full force and effect, a policy or policies of Comprehensive Vehicle Liability Insurance covering personal injury and property damage, with minimum limits of One Million Dollars (\$1,000,000) per occurrence combined single limit, covering any vehicle utilized by CONSULTANT in performing the services required by this Agreement.

(c) CONSULTANT shall at all times during the term of this Agreement, carry, maintain and keep, in full force and effect, a policy or policies of Professional Liability Insurance (errors and omissions) with minimum limits of One Million Dollars (\$1,000,000) per claim and in the aggregate. Any deductibles or self-insured retentions attached to such policy or policies must be declared to and approved by AUTHORITY. Further, CONSULTANT agrees to maintain in full force and effect such insurance for one year after performance of work under the Agreement is completed.

(d) CONSULTANT agrees to maintain in force at all times during the performance of work under this Agreement workers' compensation insurance as required by law.

(e) CONSULTANT shall require each of its sub-consultants or sub-contractors to maintain insurance coverage which meets all of the requirements of this Agreement.

(f) The policy or policies required by this Agreement shall be issued by an insurer admitted in the State of California and with a rating of at least a B+;VII in the latest edition of Best's Insurance Guide.

(g) CONSULTANT agrees that if it does not keep the aforesaid insurance in full force and effect AUTHORITY may either immediately terminate this Agreement or, if insurance is available at a reasonable cost, AUTHORITY may take out the necessary insurance and pay, at CONSULTANT's expense, the premium thereon.

(h) At all times during the term of this Agreement, CONSULTANT shall maintain on file with the City Clerk a certificate or certificates of insurance on the form set forth in Exhibit C, attached hereto and incorporated herein, showing that the aforesaid policies are in effect in the required amounts. CONSULTANT shall, prior to commencement of work under this Agreement, file with the City Clerk such certificate or certificates. The general liability insurance required by this Agreement shall contain an endorsement naming the AUTHORITY as an additional insured. All of the policies required under this Agreement shall contain an endorsement providing that the policies cannot be canceled or reduced except on thirty (30) days prior written notice to AUTHORITY, and specifically stating that the coverage contained in the policies affords insurance pursuant to the terms and conditions as set forth in this Agreement.

(i) The insurance provided by CONSULTANT shall be primary to any coverage available to AUTHORITY. The policies of insurance required by this Agreement shall include provisions for waiver of subrogation.

(j) Any deductibles or self-insured retentions must be declared to and approved by AUTHORITY. At the option of AUTHORITY, CONSULTANT shall either reduce or eliminate the

deductibles or self-insured retentions with respect to AUTHORITY, or CONSULTANT shall procure a bond guaranteeing payment of losses and expenses.

Section 12. Indemnification. CONSULTANT agrees to indemnify, hold harmless and defend AUTHORITY, City Council and each member thereof, and every officer, employee and agent of AUTHORITY, from any claims, liability or financial loss (including, without limitation, attorneys fees and costs) arising from any intentional, reckless, negligent, or otherwise wrongful acts, errors or omissions of CONSULTANT or any person employed by CONSULTANT in the performance of this Agreement.

Section 13. Termination.

(a) AUTHORITY shall have the right to terminate this Agreement for any reason or for no reason upon five (5) days written notice to CONSULTANT. CONSULTANT agrees to cease all work under this Agreement on or before the effective date of such notice.

(b) In the event of termination or cancellation of this Agreement by AUTHORITY, due to no fault or failure of performance by CONSULTANT, CONSULTANT shall be paid based on the percentage of work satisfactorily performed at the time of termination. In no event shall CONSULTANT be entitled to receive more than the amount that would be paid CONSULTANT for the full performance of the services required by this Agreement. CONSULTANT shall have no other claim against AUTHORITY by reason of such termination, including any claim for compensation.

Section 14. Notice. Any notice, bills, invoices, etc. required by this Agreement shall be deemed received on (a) the day of delivery if delivered by hand during the receiving party's regular business hours or by facsimile before or during the receiving party's regular business hours; or (b) on the second business day following deposit in the United States mail, postage prepaid to the addresses set forth above, or to such other addresses as the parties may, from time to time, designate in writing pursuant to this section.

Section 15. Attorney's Fees. In the event that either party commences any legal action or proceeding to enforce or interpret the provisions of this Agreement, the prevailing party in such action shall be entitled to reasonable attorney's fees, costs and necessary disbursements, in addition to such other relief as may be sought and awarded

Section 16. Entire Agreement. This Agreement represents the entire integrated agreement between AUTHORITY and CONSULTANT, and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by a written instrument signed by both AUTHORITY and CONSULTANT.

Section 17. Exhibits; Precedence. All documents referenced as exhibits in this Agreement are hereby incorporated in this Agreement. In the event of any material discrepancy between the express provisions of this Agreement and the provisions of any document incorporated herein by reference, the provisions of this Agreement shall prevail.

Section 19. Governing Law. The interpretation and implementation of this Agreement shall be governed by the domestic law of the State of California.

Section 19. City Not Obligated to Third Parties. AUTHORITY shall not be obligated or liable under this Agreement to any party other than CONSULTANT.

Section 20. Severability. Invalidation of any provision contained herein or the application thereof to any person or entity by judgment or court order shall in no way affect any of the other covenants, conditions, restrictions, or provisions hereof, or the application thereof to any other person or entity, and the same shall remain in full force and effect.

EXECUTED the ____ day of _____ 20 __, at Beverly Hills, California.

THE PARKING AUTHORITY OF THE CITY OF
BEVERLY HILLS, a parking authority established
pursuant to the Parking Law of 1949 of the State of
California

NANCY KRASNE
Chair of the Board of Directors

ATTEST:

BYRON POPE
Secretary to Board of Directors

CONSULTANT:
TWINING LABORATORIES OF SOUTHERN
CALIFORNIA, INC.



BRIAN C. KRAMER
President



CAROLE PICKLE
Secretary

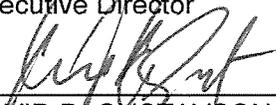
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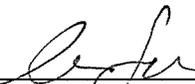
LAURENCE S. WIENER
Authority Counsel

APPROVED AS TO CONTENT:

JEFF KOLIN
Executive Director



DAVID D. GUSTAVSON
Director of Public Works & Transportation



ALAN SCHNEIDER
Director of Project Administration



KARL KIRKMAN
Risk Manager

EXHIBIT A

SCOPE OF WORK

CONSULTANT shall perform the following services:

Testing and Inspection Services

Provide deputy inspection quality control services and material testing services, including as needed, both periodic and continuous inspections. The inspections shall be in accordance with the applicable Building Codes, the approved project plans and specifications, the requirements of the AUTHORITY Building and Safety Division, as well as the guidelines for conducting special inspection duties as set forth in Chapter 17 of the California Building Code. Inspectors shall be properly licensed and experienced, and shall be approved by the AUTHORITY's Project Manager ("PM"). The services include, but are not limited to, the following:

Review of all for Construction Documents, project schedule and coordinate with General Contractor on all inspection and testing requirements.

- Review all construction related documents, including the Contractor's Project Schedule, as it relates to special inspection and testing.
- Attend coordination meetings with Architect and Contractor, and establish lines of communication and provide testing and inspection requirements.
- Provide direction and information on the quality control program's requirements, test result turn-around time, scheduling procedure, reporting, etc.

Observe placement of reinforcing steel and concrete for mat foundation.

- Provide continuous inspection during the placement of reinforcing steel for the mat foundation, and verify all aspects of the placement of reinforcing steel complies with all plans, specifications, RFI's, and governing code.
- Verify the class of concrete ordered is being delivered and conforms to specifications, drawings and/or code requirements, and check forms for cleanliness.
- Visually estimate the slump of each batch delivered and perform slump tests as required by code. Verify the concrete temperature, number of mixing revolutions, and/or length of time since batching. Observe placement procedures and inspect for proper coverage, compaction/consolidation.
- Sample and test material (rebar and concrete) for the following (or as stipulated by plans and specifications), which include slump, entrained air, temperature, wet unit weight, and when required sample materials in accordance with specified and appropriate ASTM method.
- Issue daily written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work., and itemize any changes

authorized by architect/engineer, and report all uncorrected deviations from the plans and specifications to the job superintendent immediately.

Observe placement of reinforcing steel and concrete for Shotcrete, retaining walls and Shear Wall Lateral Force Resisting System.

- Review the plans and specifications to the degree necessary in order to verify the work is being done properly.
- Provide continuous inspection during the placement of reinforcing steel for the shear wall lateral force resisting system, and will verify all aspects of the placement of reinforcing steel complies with all plans, specifications, RFI's, and governing code.
- Provide continuous inspection of Shotcrete placement.
- Verify the class of concrete ordered is being delivered and conforms to specifications, drawings and/or code requirements, and check forms for cleanliness.
- Visually estimate the slump of each batch delivered and perform slump tests as required by code. Verify the concrete temperature, number of mixing revolutions, and/or length of time since batching. Observe placement procedures and inspect for proper coverage, compaction/consolidation.
- Sample and verify that the following materials are delivered to the laboratory for testing when required by project specifications if the shear wall construction is masonry, and verify high lift or low lift procedures, verify cleanouts, check plumb and lay-up configuration, moisture conditions of masonry units, verify that proper mortar ingredients and batching techniques are being used and prepare mortar compression test specimens. Check mortar time on board, verify head joints are the same thickness as the face shells or that full head joints are used when specified, check mortar extrusions, joints, and required frequency of masonry wall prisms and observe construction of same. Check for ties, and horizontal reinforcing steel placement. Observe grouting operations as specified by Code.
- Sample and test material (rebar and concrete or masonry) for the following (or as stipulated by plans and specifications), which include slump, entrained air, temperature, wet unit weight, and when required sample materials in accordance with specified and appropriate ASTM method.
- Issue daily written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work, itemize any changes authorized by architect/engineer, and report all uncorrected deviations from the plans and specifications to the job superintendent immediately.

Perform Laboratory Material Testing (Destructive)

Material laboratory testing will be required for approval of materials used in construction. We anticipate the tests to be as follows:

- Concrete Compression Testing (ASTM C39) for matt foundation, shear wall lateral force resisting system, and post tensioned concrete decks.
- Prestress/Post tensioned Tendons (ASTM A416) for concrete decks.
- Reinforcing Steel (ASTM A615) for matt foundation and shear wall lateral force resisting system.

Observe field welding and bolting of miscellaneous structural steel items.

- Review the plans specifications and applicable sections of the reference codes, particularly the American Welding Society Structural Welding Code (AWS D1.1) and the Manual and Specifications of the American Institute of Steel Construction (AISC).
- Review of mill test reports daily and check heat numbers with material as received, and verify that proper identification of steel is maintained during fabrication. Mark sample location with steel stamp on each piece tested and record sample number and location and assure delivery to laboratory for testing. Check each welder's certification and verify that the welder does work only as covered by his certification and keep a written record of each welder by name, his identifying steel mark, and the percentage of rejectable welds. Upon detection of rejectable weld the inspector will notify the welder and/or his foreman for verification of defect. The inspector will observe removal of defects and repairs to check whether acceptable procedures were used. Check members for structural thickness adjacent to welds, inspect joints for proper preparation, including bevel, root faces, root opening etc. Inspector will check type and size of the electrodes, observe welders technique, verify proper preheat, observe multi-pass welds continuously. Observe single pass fillet welds periodically after determining that the operator is capable of producing the welds required as well as tag or stamp accepted weldments.
- Sample high strength bolts, washers, and nuts for testing from the lots in the shop or jobsite, review type of joint specified, check bolts, nuts and washers for compliance to project specifications. Review procedures for installation of bolts, amount and type of inspection, verify the assemblies are free of burrs and dirt, verify tension of bolts, check calibration of torque wrenches for tightening capacity in a wrench calibration.
- Conduct nondestructive Testing (NDT), if required.
- Perform tests as prescribed by contract documents, for welds, lamination, or lamellar tearing. Upon detection of a defect, mark the defect, and notify the foreman and/or the lead visual inspector. Keep written records of pieces, welds, welder identification marks, length and location of defect, methods and date of repair, number of retests, records of performance of each welder, and sampling rate.

- Issue daily written progress reports describing the tests and observations made and showing the action taken to correct nonconforming work. They will itemize any changes authorized by architect/engineer, and report all uncorrected deviations from the plans and specifications to the job superintendent immediately.

Prepare Material and Inspection Final Certification for Certificate of Occupancy.

Conduct a final material and inspection certification which shall be required at the completion of the project for certificate of occupancy. This report will include (i) a complete review of all inspection and test reports (ii) a statement indicating that the work performed is in conformance with the project plans, specifications and governing code.

Provide other testing and inspection duties.

- This may include pull-testing of epoxy dowels, anchors and embedments.
- Other testing and inspection, as required.

EXHIBIT A-1

PERFORMANCE SCHEDULE

The observation, testing and inspections shall be coordinated with the Contractor's schedule so that CONSULTANT does not delay the progress of the work. All reports shall be provided in a timely manner so that deficient work can be readily corrected.

CONSULTANT, in close coordination with the Contractor, shall anticipate the staffing necessary to properly perform the required tasks, and shall provide the requisite qualified personnel.

EXHIBIT B-1
COMPENSATION

AUTHORITY shall pay CONSULTANT on a time-and-materials basis, based on the hourly rate schedule set forth in Exhibit B-2. CONSULTANT acknowledges that the services are dependent upon the Contractor's schedule of the work. CONSULTANT has reviewed the schedule and confirms that the services can be performed at or below the Maximum Fee of One Hundred Seventy-Five Thousand dollars (\$175,000) at the rates set forth in Exhibit B-2.

Contingency in an amount not to exceed Fifty Thousand Dollars (\$50,000), is for additional, unforeseen and unanticipated work outside the scope of services described in Exhibit A and shall not be undertaken without the express direction by the AUTHORITY in writing. Compensation for said additional work shall be mutually agreed upon by the parties in writing.

In no event shall the Fee and the Contingency together shall not exceed Two Hundred Twenty-Five Thousand Dollars (\$225,000).

CONSULTANT shall review the Contractor's schedule, and within five working days of receipt, confirm in writing the schedule is reasonably consistent with the assumptions upon which this Agreement is based. In the event the schedule materially differs from such assumptions, CONSULTANT shall immediately provide the AUTHORITY's PM with a detailed justification for a potential fee modification.

Contingency services may include but are not limited to, the following:

- Groundwater is encountered during construction.
- Geotechnical construction changes are made in the field which requires additional engineering analysis
- Significant increase in the construction time that requires substantial addition field personnel
- Significant non-compliant work that requires substantial addition field personnel and/or testing.
- Significant weekend or after hours services
- Other conditions, that in the judgment of the AUTHORITY's PM, warrant additional fee.

EXHIBIT B-2

RATES or UNIT COSTS

Hourly Rates

Engineering and Consulting

| | |
|---|----------|
| Principal Engineer/Geologist | \$170.00 |
| Metallurgical Engineer | \$165.00 |
| Registered Geotechnical Engineer | \$160.00 |
| Registered Geologist/Certified Engineering Geologist | \$150.00 |
| Senior Engineer/Geologist | \$145.00 |
| Registered Civil Engineer | \$140.00 |
| Material Scientist, Welding/NDT Consultant or Technical Advisor | \$135.00 |
| Roofing/Waterproofing Consultant | \$115.00 |
| Project Engineer/Manager | \$130.00 |
| Quality Control Manager | \$125.00 |
| Senior Staff Engineer/Geologist | \$130.00 |
| Staff Engineer/Geologist | \$110.00 |
| Quality Control Administrator | \$95.00 |
| Metallurgical Technician | \$80.00 |
| CADD Operator/Draftsperson | \$70.00 |
| Laboratory Technician | \$65.00 |
| Expert Witness Testimony | \$350.00 |

Field Inspection

| | |
|--|----------|
| Reinforced Concrete, Masonry, Drilled-in-Anchors, Pre-stressed Concrete, Fireproofing, or structural Steel Welding/Bolting Inspector | \$68.00 |
| Lead Inspector | \$85.00 |
| L.A. Deputy Grading Inspector | \$80.00 |
| Senior Asphalt Construction and Placement Inspector | \$77.00 |
| Senior Soils/Asphalt Technician or Pile Driving Inspector | \$80.00 |
| Soils/Asphalt Technician | \$80.00 |
| Asphalt Plant Inspector | \$82.00 |
| AWS Certified Welding Inspector | \$69.00 |
| Concrete Quality Control (ACI Technician) | \$68.00 |
| DSA Class 1 Inspector | \$115.00 |
| DSA Class 2 Inspector | \$105.00 |
| OSHPD Class A Inspector | \$120.00 |
| Roofing/Waterproofing Inspector | \$72.00 |
| Mechanical/Electrical/Plumbing Inspector | \$85.00 |
| Senior Field Engineering Technician | \$83.00 |
| Field Engineering Technician | \$81.00 |

Shop Inspection

| | |
|--|---------|
| Structural Steel Fabrication (ICC/ICBO) | \$71.00 |
| Structural Steel Fabrication (AWS Certified Welding Inspector) | \$71.00 |

| | |
|--|-----------|
| Batch Plant Quality Control | \$71.00 |
| Glue-Laminated Fabrication | Quotation |
| Pipe Inspection, Reinforced Concrete, Pre-stressed, Clay | |
| \$82.00 | |

Non-Destructive Testing

| | |
|--|-----------|
| NDT Technician | \$45.00 |
| Combination NDT Technician/Welding Inspector | \$45.00 |
| Radiographic (X Ray, Gamma Ray) | Quotation |

Equipment Usage (Per Day Unless Otherwise Noted)

| | |
|---|-----------|
| Skidmore | \$40.00 |
| Torque Wrench, Small | \$15.00 |
| Torque Wrench, Large | \$25.00 |
| Torque Multiplier | \$40.00 |
| Air Meter | \$40.00 |
| Brass Mold | \$20.00 |
| Drilling/Sampling Equipment | \$50.00 |
| Nuclear Gauge (Per Hour) | \$9.00 |
| Pull Test Equipment | \$60.00 |
| Concrete/Asphalt Coring Equipment | \$175.00 |
| Pachometer | \$55.00 |
| Floor Flatness (Dipstick) | Quotation |
| Schmidt Hammer | \$20.00 |
| Vapor Emission Test Kits | \$45.00 |
| V-Meter | \$40.00 |
| Fireproofing Adhesion/Cohesion (Per Test) | \$15.00 |
| Ultrasonic Equipment and Consumables | \$60.00 |
| Magnetic Particle Equipment and Consumables | \$30.00 |
| Liquid Penetrant Consumables | \$20.00 |

Specimen Pick-Up

| | |
|---|---------|
| Standard Sample: Concrete Cylinders (Each) | Waived |
| Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing & Epoxy Prisms (Each) | Waived |
| Oversize Sample: Masonry Prisms, Shotcrete Panels, Flexural Beams (Each) | Waived |
| Technician for specimen pick-up/Sampling not listed above (per hour, 2-hour minimum) | \$75.00 |
| Technician for specimen pick-up/sampling before 5:00 a.m. or after 5:00 p.m. Monday thru Friday, or All Day Saturday (per hour, 2-Hour Minimum) | \$80.00 |

Administrative Fees

All administrative costs including report distribution are waived.

Minimum Charges (Inspection and Technician Personnel Only)

2-Hour Minimum: Inspector arrives at jobsite, no work to perform.

4-Hour Minimum: 1 to 4 hours of inspection completed before 12:00 p.m. or commencing after 12:00 p.m.
8-Hour Minimum: Over 4 hours of inspection or any inspection beginning before and extending past 12:00 p.m.

Regular Time

The first 8 hours worked Monday through Friday between 5:00 a.m. and 5:00 p.m.

Time and One-Half (All Types of Inspection)

Any increment past 8 hours through 12 hours worked Monday through Friday and the first 12 hours on Saturday. Time and one-half will also be charged for any time before 5:00 a.m. and after 5:00 p.m.

Double Time (All Types of Inspection)

After the first 12 hours worked Monday through Saturday, all day Sunday, holidays, and the first Saturday following the first Friday in June and December. Holidays are New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving, and Christmas Day.

Meal Period

When personnel are required by their duties under the applicable building code to work more than five consecutive hours without a one-half hour uninterrupted meal period, the appropriate overtime rate will be charged for the half-hour meal period.

Shift Differential

Second Shift (Swing): 8 hours charged for the first 7½ hours worked, time in excess of 7½ hours charged at overtime rate. (Employee must work a full shift and go past the 5:00 p.m. mark in the day)

Third Shift (Graveyard): 8 hours charged for first 7 hours worked, time in excess of 7 hours charged at overtime rate. (Employee must work a full shift and go past the 12:00 a.m. mark in the day)

Laboratory Testing Hours

Laboratory testing will be billed on an hourly basis for non-standard tests. If testing is required to be performed on Saturdays, Sundays, holidays, or before 5:30 a.m. or after 4:00 p.m. on weekdays, an additional hourly charge with a minimum of one hour will be applied for the laboratory technician.

Charges for Subcontracted Services

| | |
|--|---------------|
| Material sent to outside laboratory for testing: | Cost plus 15% |
| Material sent to outside fabricator or machine shop: | Cost plus 15% |
| Other subcontractors: | Cost plus 15% |
| Project exclusive equipment purchase: | Cost plus 15% |

Certified Payroll

Certified payroll will be provided, upon request.

Final Reports

A final report or affidavit will be provided of all inspection and testing reports in electronic form.

Specimen Disposal

Specimens will be discarded after testing unless Twining Laboratories has been notified prior to testing that the customer wishes to retrieve the specimens or storage arrangements are made.

Oversize Specimens

No extra charge will be made when test specimens require more than one person to handle due to size or weight.

Laboratory Testing (Per Test Unless Noted Otherwise)

| | |
|--|----------|
| Concrete Tests (Field Made Specimens) " x 12" Cylinder: | |
| Compression Strength (ASTM C39) | \$22.00 |
| Unit Weight Including Lightweight Concrete | \$65.00 |
| Core Compression Including Trimming (ASTM C42) | \$45.00 |
| 6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523) | \$60.00 |
| 6" x 6" x 30" Flexural Beams (CTM 523) | \$80.00 |
| 6" x 12" Cylinders: Splitting Tensile Strength (ASTM C496) | \$75.00 |
| Modulus of Elasticity Test: Static 6" x 12" Cylinders (ASTM C469) | \$125.00 |
| Drying Shrinkage Up to 28 Days: 3 Bars, 5 Readings (ASTM C157) | \$315.00 |
| Chloride Permeability Test: Cylinders or Cores (ASTM C1202) | \$300.00 |
| Density, Absorption, and Voids in Hardened Concrete (ASTM C642) | \$210.00 |
| Flexural Toughness (ASTM C1018) | \$285.00 |

Laboratory Trial Batch

| | |
|---|------------|
| 6" x 12" Compression Test Cylinders Made and Tested in Laboratory | \$35.00 |
| 6" x 6" x 18" Flexural Beams Made and Tested in Laboratory | \$75.00 |
| 6" x 6" x 30" Flexural Beams Made and Tested in Laboratory | \$90.00 |
| 6" x 12" Splitting Tensile Strength Cylinders Made and Tested in Laboratory | \$80.00 |
| 6" x 12" Modulus of Elasticity Test Cylinders Made and Tested in Laboratory | \$145.00 |
| 6" x 12" Unit Weight Test Cylinders Made and Tested in Laboratory | \$80.00 |
| Laboratory Trial Batch (ASTM C192) | \$300.00 |
| Laboratory Trial Batch: Packaged Dry Concrete (ASTM C387 and C192) | \$450.00 |
| Drying Shrinkage Up to 28 Days Made and Tested in Laboratory: 3 Bars, 5 Readings (ASTM C157) | \$350.00 |
| Setting Time Up to 7 Hours (ASTM C403) | \$100.00 |
| Bleeding (ASTM C232) | \$100.00 |
| Concrete Restrained Expansion (ASTM C878) | \$400.00 |
| Laboratory Trial Batch: Packaged Non-Shrink Grout, # "A" or "C" (ASTM C1107) | \$1,500.00 |
| Laboratory Trial Batch: Packaged Non-Shrink Grout, Grade "B" (ASTM C1107) | \$1,000.00 |

| | |
|--|----------|
| Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C109, C942) | \$300.00 |
| Non-Shrink Grout: Height Change after Final Set (ASTM C1090) | \$360.00 |
| Non-Shrink Grout: Height Change at Early Age (ASTM C827) | \$600.00 |
| Non-Shrink Grout: Fresh Grout Properties (ASTM C1090, CRD621) | \$400.00 |

Brick Masonry Tests

| | |
|---|----------|
| Modulus of Rupture: Flexural (5 Required Per ASTM) | \$30.00 |
| Compression Strength (3 Required Per ASTM) | \$30.00 |
| Absorption: 5 Hour or 24 Hour (5 Required) | \$35.00 |
| Absorption (Boil): 1, 2 or 5 Hours (5 Required) | \$45.00 |
| Initial Rate of Absorption (5 Required) | \$25.00 |
| Efflorescence (5 Required) | \$45.00 |
| Cores: Compression | \$40.00 |
| Shear Test on Brick Cores: 2 Faces | \$60.00 |
| Concrete Block, ASTM C140 Compression (3 Required Per ASTM) | \$35.00 |
| Absorption (3 Required Per ASTM) | \$30.00 |
| Moisture Content, as Received (3 Required Per ASTM) | \$30.00 |
| Linear Shrinkage (ASTM C426) | \$150.00 |
| Web and Face Shell Measurements | \$30.00 |
| Tension Test | \$130.00 |
| Core Compression | \$40.00 |
| Shear Test of Masonry Cores: 2 Faces | \$60.00 |
| Efflorescence Tests (3 Required) | \$30.00 |
| Oven Dry Density | \$30.00 |

Masonry Prisms, UBC STD 21-17

| | |
|---|----------|
| Compression Test: Composite Masonry Prisms Up To 8" x 16" | \$165.00 |
| Compression Test: Composite Masonry Prisms Larger Than 8" x 16" | \$220.00 |

Mortar and Grout

| | |
|---|----------|
| Compression: 2" x 4" Mortar Cylinders (UBC STD 21-16) | \$24.00 |
| Compression: 3" x 3" x 6" Grout Prisms, Includes Trimming (UBC STD 21-18) | \$45.00 |
| Compression: 2" Cubes (ASTM C109) | \$24.00 |
| Compression: Cores (ASTM C42) | \$45.00 |
| Mortar Expansion (ASTM C806) | \$250.00 |

Masonry Specimen Preparation

| | |
|----------------------------|---------|
| Cutting of Cubes or Prisms | \$40.00 |
|----------------------------|---------|

Fireproofing Tests

| | |
|-------------------------------|---------|
| Oven Dry Density (Per Sample) | \$55.00 |
|-------------------------------|---------|

Gunitite and Shotcrete Tests

| | |
|--|---------|
| Core Compression Including Trimming (ASTM C42) | \$45.00 |
| Compression: 6" x 12" Cylinders | \$25.00 |
| Compression: Cubes | \$25.00 |

Concrete Roof Fill: Gypsum, Vermiculite, Perlite, Etc.

| | |
|---|---------|
| Compression Test (ASTM C495 and C472) | \$24.00 |
| Density (ASTM C495 and C472) | \$25.00 |
| Lightweight Insulating Cubes (ASTM C495 and C513) | \$20.00 |
| Oven Dry Density (ASTM C495) | \$25.00 |

Reinforcing Steel, ASTM A615

| | |
|-----------------------------------|----------|
| Tensile Test: # 11 or Smaller | \$45.00 |
| Bend Test: # 11 or Smaller | \$40.00 |
| Tensile Test: # 14 | \$90.00 |
| Tensile Test: # 18 | \$160.00 |
| Sampling and Tagging (Fabricator) | \$22.00 |

Welded Specimens

| | |
|---|----------|
| Tensile Test: Welded #11 and Smaller | \$50.00 |
| Tensile Test: Welded #14 | \$85.00 |
| Tensile Test: Welded #18 | \$100.00 |
| Tensile Test: Mechanical Splice | \$100.00 |
| Weld: Macroetch | \$50.00 |
| Slippage Test In Addition to Tensile Test (Per Caltrans 52-1.08C) | \$150.00 |

Metal and Steel Testing, ASTM A370

| | |
|--|----------|
| Tensile Strength: Up to 100K Pounds (Each) | \$40.00 |
| Tensile Strength: Up to 200K Pounds (Each) | \$45.00 |
| Tensile Strength: Up to 300K Pounds (Each) | \$55.00 |
| Tensile Strength: Up to 400K Pounds (Each) | \$95.00 |
| Tensile Strength: 400K to 600K Pounds (Each) | \$130.00 |
| Tensile Strength: Stress-Strain Percent Offset | \$130.00 |
| Bend Test | \$40.00 |
| Flattening Test | \$50.00 |
| Brinell and Rockwell Hardness Test (ASTM E18) (Per Test) | \$65.00 |

Machining and Preparation of Tensile and Bend Sample: Carbon Steel

| | |
|--|----------|
| Machinist: Initial Preparation from Mock-up, Etc. (Per Hour) | \$65.00 |
| Sawcut to Overall Width (Per 0.5" Thickness or Fraction Thereof) | \$35.00 |
| Machine to Test Configuration: | |
| Milled Specimens (Per 0.5" Thickness or Fraction Thereof) | \$50.00 |
| Machine to Test Configuration: | |
| Turned Specimens (Per 0.5" Thickness or Fraction Thereof) | \$100.00 |
| Prepare Subsize Specimens (Per 0.5" Thickness or Fraction Thereof) | \$65.00 |

Charpy Impact

| | |
|--|---------|
| Charpy Impact Ambient Temperature, per sample (Average of 3 Samples Typically Required) | \$30.00 |
| Charpy Impact Reduced Temperature, per sample (Average of 3 Samples Typically Required) | \$55.00 |

Machining of Charpy Samples: Carbon Steel

| | |
|---|----------|
| Cutting and Milling (Per 0.5" or Fraction Thereafter) (Average of 3 Samples Typically Required) | \$65.00 |
| Final Machining to Sample Configuration (Average of 3 Samples Typically Required) | \$65.00 |
| Prestressing Wires and Tendons, ASTM A416 Stress-Strain Analysis: Wire or Strands (Including Chart and Percent Offset) | \$150.00 |
| Tensile Test Only | \$110.00 |

Welding Certification (For Machining and Preparation of Samples Refer to Metal and Steel Testing Above)

| | |
|--|---------|
| Qualification of Welders: Bend Test | \$30.00 |
| Qualification of Welders: Tensile Test | \$35.00 |
| Weld: Macroetch | \$50.00 |
| Weld: Fracture | \$25.00 |
| Preparation and Issuance of Certificates | \$50.00 |

Calibration Services and Universal Machine Usage

| | |
|---|-----------|
| Calibration Services | Quotation |
| Universal Test Machine Usage (Per Hour) | \$100.00 |

Ceramic Tile Testing Division

Quotation

Special Testing/Engineering Services

| | |
|---|-----------|
| Cyclic and Fatigue Testing Programs on Special Products/Parts | Quotation |
| Engineering & Technical supports/Design of Prototypes & Special Test Set-Up | Quotation |
| Fastener/Coupling Full Testing Program Per New Regulations: Tension, Tension/Bend, Shear, Double Shear, 8 Compressions | Quotation |
| Fiberglass/Composite Materials Field Testing Program (ASTM D4065, D1143, D4923, D2584, D4476, D1242, D7901, D7921, & D732) | Quotation |
| Field Testing of Structures and Structural Elements | Quotation |
| In-Place Shear Testing | Quotation |
| Materials and/or Product Evaluation Per Specifications | Quotation |
| Plastics, Pipe and Fitting Per Plumbing Code | Quotation |
| Salt Spray Testing Program (ASTM B117, B287, B368, D609 and D1654) | Quotation |
| Structural Dynamic Testing and Durability Analysis | Quotation |

Chemical Laboratory Services**Aggregates**

| | |
|---|----------|
| Potential Reactivity: Chemical Method (ASTM C289) | \$400.00 |
|---|----------|

Cement, ASTM C150

| | |
|---|------------|
| Chemical Analysis, Complete | \$500.00 |
| Physical Testing, Complete | \$1,000.00 |
| Partial Analysis or Specific Physical Tests | Quotation |

Concrete

| | |
|--|-----------|
| Chemical Analysis for Water Soluble Sulfates (ASTM C114) | \$110.00 |
| Chemical Analysis for Acid Soluble Sulfates (ASTM C114) | \$175.00 |
| Chemical Analysis for Water Soluble Chlorides (ASTM C1218) | \$110.00 |
| Petrographic Examination of Hardened Concrete (ASTM 856) | Quotation |

Fly Ash, ASTM C618

| | |
|---|------------|
| Chemical Analysis, Complete | \$450.00 |
| Physical Testing, Complete | \$1,050.00 |
| Partial Analysis or Specific Physical Tests | Quotation |

Gypsum Plaster

| | |
|--|----------|
| Proportion of Gypsum and Aggregate in Hardened Plaster (ASTM C471) | \$310.00 |
|--|----------|

Metal and Steel Testing

| | |
|------------------------------|----------|
| Steel Chemical Analysis | \$100.00 |
| Weight of Galvanized Coating | \$56.00 |

EXHIBIT B-3

SCHEDULE OF PAYMENTS

CONSULTANT shall submit an itemized statement to AUTHORITY for its services performed, which shall include documentation setting forth in detail a description of the services rendered and the hours of service. AUTHORITY shall pay CONSULTANT the amount of such billing within forty-five (45) days of receipt of same.



CERTIFICATE OF INSURANCE

This is to certify that the following endorsement is part of the policy(ies) described below:

NAMED INSURED

COMPANIES AFFORDING COVERAGE

- A.
- B.
- C.

ADDRESS

| COMPANY (A. B. C.) | COVERAGE | POLICY NUMBER | EXPIRATION DATE | B.I. | LIMITS P.D. | AGGREGATE |
|-----------------------|---|------------------|--------------------|------|----------------|-----------|
| | <input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> GENERAL LIABILITY <input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS <input type="checkbox"/> BLANKET CONTRACTUAL <input type="checkbox"/> CONTRACTOR'S PROTECTIVE <input type="checkbox"/> PERSONAL INJURY <input type="checkbox"/> EXCESS LIABILITY <input type="checkbox"/> WORKERS' COMPENSATION <input type="checkbox"/> | | | | | |

It is hereby understood and agreed that the **City of Beverly Hills**, its City Council and each member thereof and every officer and employee of the City shall be named as joint and several assureds with respect to claims arising out of the following project or agreement:

It is further agreed that the following indemnity agreement between the **City of Beverly Hills** and the named insured is covered under the policy: Contractor agrees to indemnify, hold harmless and defend City, its City Council and each member thereof and every officer and employee of City from any and all liability or financial loss resulting from any suits, claims, losses or actions brought against and from all costs and expenses of litigation brought against City, its City Council and each member thereof and any officer or employee of City which results directly or indirectly from the wrongful or negligent actions of contractor's officers, employees, agents or others employed by Contractor while engaged by Contractor in the (performance of this agreement) construction of this project.

It is further agreed that the inclusion of more than one assured shall not operate to increase the limit of the company's liability and that insurer waives any right of contribution with insurance which may be available to the **City of Beverly Hills**.

In the event of cancellation or material change in the above coverage, the company will give **30 days** written notice of cancellation or material change to the certificate holder.

Except to certify that the policy(ies) described above have the above endorsement attached, this certificate or verification of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate or verification of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

DATE: _____

BY: _____
 Authorized Insurance Representative

AGENCY: _____

TITLE: _____
 ADDRESS: _____

RM02.DOC REVISED 10/14/96.