

AGREEMENT TO FURNISH GEOTECHNICAL, CONSTRUCTION INSPECTION
AND MATERIAL TESTING SERVICES FOR THE MILL CREEK RESERVOIR
REPLACEMENT PROJECT

This Agreement is made and entered into this 17th day of January, 2006 by and between the City of Redlands, a municipal corporation (hereinafter "City") and Converse Consultants, hereinafter ("Consultant").

In consideration of the mutual promises hereinafter set forth, City and Consultant agree as follows:

ARTICLE 1 - ENGAGEMENT OF CONSULTANT

- 1.1 City hereby engages Consultant and Consultant hereby accepts the engagement to perform geotechnical, construction inspection and material testing services for the Mill Creek Reservoir Replacement Project (the "Services").
- 1.2 The Services shall be performed by Consultant in a professional manner, and Consultant represents that it has the skill and the professional expertise necessary to provide the Services to City at a level of competency presently maintained by other practicing professional consultants in the industry providing like and similar types of services.

ARTICLE 2 - SERVICES OF CONSULTANT

- 2.1 The specific Services which Consultant shall perform are more particularly described in Exhibit "A" entitled "Scope of Services" which is attached hereto and incorporated herein by this reference.
- 2.2 Consultant shall comply with all applicable Federal, State and local laws and regulations in the performance of this Agreement including, but not limited to, all applicable Labor Code and prevailing wage laws commencing at Labor Code section 1770 et seq., and non-discrimination laws including the Americans with Disabilities Act and the Fair Employment and Housing Act.
- 2.3 Consultant further understands that if it violates the provisions of the Labor Code relating to prevailing wage, that City may enforce the Labor Code by notice of the withholding of contract payments to Consultant or its subcontractors pursuant to Labor Code sections 1726, 1727 and 1771.6.
- 2.4 Consultant agrees that if it executes an agreement with a subcontractor to perform any of the Services, that Consultant shall comply with Labor Code sections 1775 and 1777.7 by providing the subcontractor with copies of the provisions of Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 of the Labor Code. Consultant acknowledges that the statutory provisions for penalties for failure to comply with state wage and hour laws and to pay prevailing wages may be enforced by City pursuant to Labor Code sections 1775 and 1813.

ARTICLE 3 - RESPONSIBILITIES OF CITY

- 3.1 City shall make available to Consultant information in its possession that is pertinent to the performance of Services.
- 3.2 City will make provisions for Consultant to enter upon City-owned property as required by Consultant to perform the Services.
- 3.3 City designates Michael Pool to act as its representative with respect to the Services to be performed under this Agreement.

ARTICLE 4 - PERIOD OF SERVICE

- 4.1 Consultant shall perform the Services in a prompt and diligent manner and in accordance with the schedule set forth in Exhibit "B," entitled "Project Schedule."

ARTICLE 5 - PAYMENTS TO THE CONSULTANT

- 5.1 The total compensation for Consultant's performance of the Services shall not exceed the amount of \$12,910.00. City shall pay Consultant on a time and materials basis up to the not to exceed amount, in accordance with Exhibit "C" entitled "Project Fee," and based upon the hourly rates shown in Exhibit "D," entitled "Rate Schedule."
- 5.2 Consultant shall bill City within ten days following the close of each month by submitting an invoice indicating the portion of the Services performed, who performed the Services, indirect costs, and the detailed cost of all Services including backup documentation. Payments by City to Consultant shall be made within thirty (30) days after receipt and approval of Consultant's invoice, by warrant payable to Consultant.
- 5.3 All notices, bills and payments shall be made in writing and may be given by personal delivery or by mail. Notices, bills and payments sent by mail shall be addressed as follows:

City

Michael Pool, Civil Engineer
Municipal Utilities Department
City of Redlands
35 Cajon Street, Suite 15A
PO Box 3005 (mailing)
Redlands, CA 92373

Consultant

Hashmi S. Quazi, Principal Engineer
Converse Consultants
10391 Corporate Drive
Redlands, CA 92374

When so addressed, such notices shall be deemed given upon deposit in the United States Mail. Changes may be made in the names and addresses of the person to whom notices and payments are to be given by giving notice pursuant to this section.

ARTICLE 6 - INSURANCE AND INDEMNIFICATION

6.1 Consultant's Insurance to be Primary

All insurance required by this Agreement shall be maintained by Consultant for the duration of this Agreement and shall be primary with respect to City and non-contributing to any insurance or self-insurance maintained by City. Consultant shall not perform any Services unless and until all required insurance listed below is obtained by Consultant. Consultant shall provide City with Certificates of Insurance and endorsements evidencing such insurance prior to commencement of the Services. All insurance policies shall include a provision prohibiting cancellation of the policy except upon thirty (30) days prior written notice to City.

6.2 Workers' Compensation and Employer's Liability

A. Consultant shall secure and maintain Workers' Compensation and Employer's Liability insurance throughout the duration of this Agreement in amounts which meet statutory requirements with an insurance carrier acceptable to City.

B. Consultant expressly waives all rights to subrogation against City, its elected officials, employees and volunteers for losses arising from work performed by Consultant for City by expressly waiving Consultant's immunity for injuries to Consultant's employees and agrees that the obligation to indemnify, defend and hold harmless provided for in this Agreement extends to any claim brought by or on behalf of any employee of Consultant. This waiver is mutually negotiated by the parties. This waiver shall not apply to any damage resulting from the negligence of City, its agents and employees. To the extent any of the damages referenced herein were caused by or resulted from the concurrent negligence of City, its agents or employees, the obligations provided herein to indemnify, defend and hold harmless is valid and enforceable only to the extent of the negligence of Consultant, its officers, agents and employees.

6.3 Comprehensive General Liability Insurance.

Consultant shall secure and maintain in force throughout the duration of this Agreement comprehensive general liability insurance with carriers acceptable to City. Minimum coverage of one million dollars (\$1,000,000) per occurrence and two million dollars (\$2,000,000) aggregate for public liability, property damage and personal injury is required. Consultant shall obtain an endorsement that City shall be named as an additional insured.

6.4 Professional Liability Insurance.

Consultant shall secure and maintain professional liability insurance throughout the duration of this Agreement in the amount of one million dollars (\$1,000,000) per occurrence and two million dollars (\$2,000,000) annual aggregate.

6.5 Business Auto Liability Insurance.

Consultant shall have business auto liability coverage, with minimum limits of one million dollars (\$1,000,000) per occurrence, combined single limit for bodily injury liability and property damage liability. This coverage shall include all Consultant-owned vehicles used in connection with the Services, hired and non-owned vehicles, and employee non-ownership vehicles. Consultant shall obtain an endorsement that City shall be named as an additional insured.

6.6 Assignment and Insurance Requirements.

Consultant is expressly prohibited from assigning any of the Services without the express prior written consent of City. In the event of mutual agreement between parties to assign a portion of the Services, Consultant shall add the assignee as an additional insured and provide City with the insurance endorsements prior to any Services being performed by the assignee. Assignment does not include printing or other customary reimbursable expenses that may be provided in this Agreement.

6.7 Hold Harmless and Indemnification.

Consultant shall defend, indemnify and hold harmless City, its elected officials, officers, employees and agents, from and against any and all actions, claims, demands, lawsuits, losses and liability for damages to persons or property, including costs and attorney fees, that may be asserted or claimed by any person, firm, entity, corporation, political subdivision or other organization arising out of or in connection with Consultant's negligent and/or intentionally wrongful acts or omissions under this Agreement; but excluding such actions, claims, demands, lawsuits and liability for damages to persons or property arising from the negligence or intentionally wrongful acts of City, its officials, employees or agents.

ARTICLE 7 - GENERAL CONSIDERATIONS

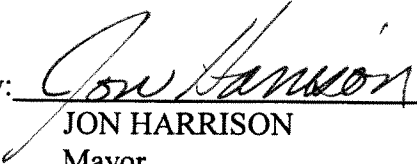
- 7.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees, including fees for in-house counsel of the parties at rates prevailing in San Bernardino County, California.
- 7.2 Consultant's key person to perform the Services is Project Manager Ashutosh Shirolkar. Consultant agrees that this person shall be made available and assigned to perform the Services and that he shall not be replaced without concurrence from City.
- 7.3 All documents, records, drawings, designs, cost estimates, electronic data files, databases, and other documents developed by Consultant pursuant to this Agreement and any copyright interest in said above described documents, shall become the property of City and shall be delivered to City upon completion of the Services, or upon the request of City. Any reuse of such documents and any use of incomplete documents will be at City's sole risk.

- 7.4 Consultant is for all purposes an independent contractor. Consultant shall supply all tools and instrumentalities required to perform the Services described in this Agreement. All personnel employed by Consultant are for its account only, and in no event shall Consultant or any personnel retained by it be deemed to have been employed by City or engaged by City for the account of, or on behalf of City.
- 7.5 Unless earlier terminated, as provided for below, this Agreement shall terminate upon completion and acceptance of the Services by City.
- 7.6 This Agreement may be terminated by City, without cause, by providing five (5) days prior written notice to Consultant (delivered by certified mail, return receipt requested) of intent to terminate.
- 7.7 If this Agreement is terminated by City, an adjustment to Consultant's compensation shall be made, but (1) no amount shall be allowed for anticipated profit or unperformed services, and (2) any payment due Consultant at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Consultant.
- 7.8 Upon receipt of a termination notice, Consultant shall (1) immediately discontinue all Services, and (2) within five (5) days of the date of said termination notice, deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable) of any data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Consultant in performing the Services. Consultant shall be compensated on a pro-rata basis for work completed up until notice of termination.
- 7.9 Consultant shall maintain books and accounts of all payroll costs and expenses related to the Services. Such books shall be available at all reasonable times for examination by City at the office of Consultant.
- 7.10 This Agreement, including the Exhibits incorporated herein by reference, represents the entire agreement and understanding between the parties as to the matters contained herein, and any prior negotiations, written proposals or verbal agreements relating to such matters are superseded by this Agreement. Any amendment to this Agreement shall be in writing, approved by City Council of City and signed by City and Consultant.
- 7.11 This Agreement shall be governed by and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, duly authorized representatives of the City and Consultant have signed in confirmation of this Agreement.

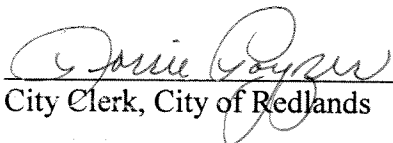
City of Redlands

Converse Consultants

By: 
JON HARRISON
Mayor

By: 
Hashmi S. Quazi
Principal Engineer

Attest:


City Clerk, City of Redlands

**AGREEMENT TO FURNISH GEOTECHNICAL, CONSTRUCTION
INSPECTION AND MATERIAL TESTING FOR THE MILL CREEK
RESERVOIR REPLACEMENT PROJECT**

EXHIBIT "A"

SCOPE OF SERVICES

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Our scope of services will include:

Task I: Field Services

- Full-time/On-call observation and testing of compacted backfill during grading of the reservoir pads
- Full-time/On-call observation and testing of utility trench backfill compaction
- Observe placement of concrete for ring wall foundation. Test properties of fresh concrete and fabricate concrete cylinders
- Observe welding of steel tanks in the field
- Pick up soils samples and concrete cylinders and transport to our laboratory

Task II: Laboratory Testing

- Modified Proctor (ASTM 1557)
- Compressive strength test of concrete cylinders

Task III: Project Management and office support

- Review field and laboratory tests results
- Submit invoice and daily reports
- Prepare grading and post-grading report

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EXHIBIT "B"

PROJECT SCHEDULE

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The timing for services to be provided shall coincide with the duration of the construction contract, and as otherwise directed by the Project Manager to accomplish the Project.

The scope of services, under this Agreement will be concluded not later than 12 months from the date of approval without prior written authorization by the Project Manager.

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EXHIBIT "C"

PROJECT FEE

PROJECT FEE

Task I: Field Services

Service	Unit	Total Units	Unit Rate	Total
Attend pre-construction meeting	Hr	2	90	\$180.00
Full-time/On-call observation and testing during grading and utility trench backfill	Hour	60	70	\$4,200.00
Full-time observation and testing during concrete placement	Hour	24	60	\$1,440.00
Welding Inspection in the field	Hour	40	60	\$2,400.00
Soils samples and concrete cylinder pick-up from the field and transport to oor laboratory	Hour	10	35	\$350.00
Total				\$8,570.00

Task II: Laboratory Testing

Service	Unit	Total Units	Unit Rate	Total
Modified Proctor	Test	4	110	\$440.00
Compressive strength test of concrete cylinders	Cylinders	24	20	\$480.00
Total				\$920.00

Task III: Project Management and Office Support

Service	Unit	Total Units	Unit Rate	Total
Project Management	Hour	8	90	\$720.00
Grading and post-grading report	Lump Sum	1	2500	\$2,500.00
Support Staff	Hour	4	50	\$200.00
Total				\$3,420.00

COST SUMMARY

Task	Cost
Task I: Field Services	\$8,570.00
Task II: Laboratory Testing	\$920.00
Task III: Project Management and Office Support	\$3,420.00
TOTAL	\$12,910.00

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EXHIBIT "D"

RATE SCHEDULE

Introduction

It is the objective of Converse Consultants to provide its clients with quality professional and technical services and a continuing source of professional advice and opinions. Services will be performed in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

Hourly Charges for Personnel

Staff assignments will depend on personnel availability, job complexity, project site location and experience level required to satisfy the technical requirements of the project and to meet the prevailing standard of professional care.

Field Technical Services

Construction Inspector - ICBO and/or AWS/CWI certified (concrete, masonry, structural steel, fireproofing, includes concrete batch plant and local steel fabrication inspections)	\$65
DSA Masonry Inspector	70
Non-Destructive Testing Inspector (ultrasonic, magnetic particle, dye penetrant, pull testing, torque testing, Schmidt hammer, and pachometer)	75
Soils Technician	80
Supervisory Soils Technician	85

Professional Services (Field and Office)

Staff Professional	
Senior Staff Professional	\$70
Project Professional	80
Project Manager	100
Senior Professional	110
Principal Professional	125
	145

Laboratory Testing

Laboratory Technician	
(Unit prices for routine tests quoted upon request; see Geotechnical Laboratory Testing and Materials Testing Services Schedules of Fees)	\$65

Office Support

Clerical/Word Processing	
Drafting	\$55
CAD Operator/Drafting Manager	60
	70

Overtime and special shift rates for Field Technical Services personnel are determined in accordance with Prevailing Wage law. An overtime charge of 50 percent of the above hourly rates for Laboratory Testing and Office Support personnel will be added for time in excess of eight hours per day at the job site and for all time on Saturdays, Sundays and holidays. Travel time to and from the job site will be charged at the hourly rates for the appropriate personnel.

Expenses

1. Exploration expenses (drilling, trenching, etc.) are charged at cost plus fifteen percent.
2. Travel and subsistence expenses (transportation, room and board, etc.) for individuals on projects requiring travel and/or living away from a principal office are charged at cost plus fifteen percent.
3. Automobile and truck expenses are charged at cost plus fifteen percent (rentals) or at a rate of fifty cents per mile for company-owned vehicles traveling between principal office and project.
4. Other out-of-pocket direct project expenses (aerial photos, long-distance telephone calls, permits, bonds, outside printing services, tests, etc.) are charged at cost plus fifteen percent.

Geotechnical Laboratory Testing

Compensation for laboratory testing services will be made in accordance with this fee schedule. Costs of tests not on this schedule will be by quote and/or in accordance with our current hourly fee schedule. The rates are based on non-contaminated soil. A surcharge will be charged for handling contaminated material, which will be determined based on the project.

IDENTIFICATION AND INDEX PROPERTIES TESTS

Visual Classification, ASTM D2488.....	8.00
Engineering Classification, ASTM D2487	15.00
Moisture Content	
▪ Moisture Content & Dry (Bulk) Density, ASTM D2216 & D2937	15.00
▪ Moisture Content, ASTM D2216	10.00
Shrinkage Limit, ASTM D427	85.00
Atterberg Limits, ASTM D4318	
▪ Several points	75.00
▪ One point	40.00
Particle Size Analysis, ASTM D422	
▪ Fine Sieve (From + #200 to #4)	70.00
▪ Coarse Sieve (From + #200 to 3 in)	80.00
▪ Hydrometer	85.00
Percent Passing #200 Sieve, ASTM D1140	45.00
Specific Gravity	
▪ Fine (passing #4 sieve), ASTM D854	70.00
▪ Coarse (retained on #4 sieve), ASTM C127	70.00
Sand Equivalent Test	75.00
Double Hydrometer Dispersion, ASTM D4221	150.00

COMPACTION AND BEARING STRENGTH

Standard Proctor Compaction, ASTM D698 or ASTM D1557-91	
▪ Method A or B	120.00
▪ Method C (6-inch mold)	140.00
California Impact Method (Caltrans 216)	180.00
R-value, ASTM D2844	220.00
California Bearing Ratio (CBR), ASTM D1883	
▪ 1 point	125.00
▪ 3 point	325.00
Relative Density	
▪ 0.1 cubic foot mold	200.00
▪ 0.5 cubic foot mold	300.00

SHEAR STRENGTH

Torvane/Pocket Penetrometer	20.00
Direct Shear (per point)	
▪ Quick Test	60.00
▪ Consolidated - Drained (granular soil) ASTM D3080	140.00
▪ Consolidated - Drained (fine grained soil), ASTM D3080	200.00
▪ Consolidated - Undrained (fine grained)	120.00
▪ Residual Strength, per Cycle	45.00
▪ Remolded Specimens, per specimen	45.00

STATIC UNIAXIAL AND TRIAXIAL STRENGTH TESTS (PER POINT)

Unconfined Compression, ASTM 2166	75.00
Unconsolidated - Undrained, ASTM D2850	110.00
Consolidated - Undrained (per point)	700.00
Consolidated - Drained (per point)	700.00
With Pore Pressure Measurement, per load	150.00
Remolded Specimens, per specimen	45.00

CONSOLIDATION AND SWELL COLLAPSE TESTS

8 Load Increments	180.00
Additional load increment	30.00
Time-Ratio, per load increment	60.00
Single Point (collapse test)	60.00
Single Load Swell, ASTM D4546	
▪ Ring Sample, Field Moisture	65.00
▪ Ring Sample, Air Dried	65.00
Remolded Sample, per specimen	45.00
Expansion Index Test, UBC 29-2/ASTM D4829	80.00

HYDRAULIC CONDUCTIVITY TESTS

Constant Head, ASTM D2434	250.00
Falling Head Flexible Wall, ASTM D5084	300.00
Triaxial Permeability, EPA 9100	350.00
Remolded Specimen, per specimen	50.00

CHEMICAL TESTS

Corrosivity (pH, resistivity, sulfates, chlorides)	140.00
Organic Content, ASTM D2974	65.00

Conditions: Unit rates presented on this fee schedule are for routinely performed geotechnical laboratory tests. Numerous other earth material physical tests can be performed in our geotechnical laboratories, including rock core, soil cement and soil lime mixture tests. Tests not listed can be quoted upon request.

Prices are based on the assumption that samples are uncontaminated and do not contain heavy metals, acids, carcinogens and/or volatile organics which can be measured by an organic vapor analyzer or photoionization detector with a concentration greater than 50 parts-per-million (ppm). Quoted testing fees are based on the assumption that no protective clothing will be required to handle samples. If Level D protective clothing will be required during handling of samples (as defined in the Federal CFR Part 1910.120), then a 40% increase in fees presented in this schedule will be applied. Level C protective clothing will be a 60% increase in fees. Converse will not handle samples that require either Level B or Level A protection in our geotechnical laboratories. Contaminated samples will be returned to the client. Uncontaminated samples will be disposed of 30 days after presentation of test results. The client must disclose the source of samples. Samples imported from out of state will be incinerated after testing, in accordance with requirements of the United States Department of Agriculture. Soil samples obtained within the State of California currently designated quarantine areas will also be incinerated in accordance with the requirement of the State of California, Department of Food and Agriculture, Division of Plant Industry, Pest Exclusion. A \$5.00 incineration fee will be added to each sample that is required to be incinerated in accordance with State and Federal law.

Test results requiring plots will be presented in a publishable format generated from computer programs. Otherwise, raw test numbers will be presented. A minimum laboratory fee of \$50.00 will be charged to present and mail test results. Beyond the standard U. S. Mail delivery, specialized transmittal will be charged at additional cost (e.g., Federal Express, UPS, etc.). Geotechnical testing does not include engineering and/or geologic review and analysis. Typical turn-around for geotechnical laboratory testing is two weeks (or roughly ten working days). To expedite test turn-around to five working days, a 50% increase in the fees in this schedule will be applied. Many geotechnical tests require at least one week to perform in accordance with the ASTM or other standard specifications. Fees presented in this schedule for relatively undisturbed direct shear, consolidation or expansion pressure tests are based on the assumption that 22-inch-diameter (2.416-inch inside diameter) brass ring samples will be provided to the geotechnical laboratory for testing. Remolded specimens will be compacted in standard 2.5-inch outside diameter brass rings for direct shear, consolidation and expansion pressure tests. All fees presented in this schedule are based on the assumption that the client will deliver samples to our laboratory at no additional cost to Converse. Sample pick-up is available at a rate of \$45 per hour of drive time and \$0.50 per mile driven.

Materials Testing Services

Compensation for laboratory testing services will be based on rates in accordance with this schedule. Costs of tests not on this schedule will be by quote and/or in accordance with our current hourly fee schedule.

AGGREGATES

Moisture Content (ASTM D2216).....	\$10.00
Particle Size Analysis	
▪ Coarse (ASTM C136), each.....	60.00
▪ Coarse and fine (ASTM C136 & 137), each.....	140.00
▪ Specific Gravity & Absorption	
▪ Coarse Aggregate (ASTM C127).....	80.00
▪ Fine Aggregate (ASTM C128).....	80.00
▪ Unit weight per cubic foot (ASTM C29).....	50.00
▪ Soundness-Sodium or Magnesium (ASTM C88), each ..	200.00
▪ Potential Alkali Reactivity (ASTM D289).....	300.00
▪ Freeze Thaw Soundness	175.00
▪ Los Angeles Abrasion, per class (ASTM C131, C535) ...	210.00
▪ Sand Equivalent (ASTM D2419).....	70.00
▪ Lightweight Particles (ASTM C123), each.....	75.00
▪ Clay Lumps and Friable Particles (ASTM C142), each...	100.00
▪ Stripping test (ASTM D1664), each	65.00
▪ Organic impurities (ASTM C40).....	60.00
▪ Durability.....	By Quote

CONCRETE TESTS

Laboratory Trial Batch (ASTM C192).....	By Quote
Laboratory Mix Design, historical data	By Quote
Compression Test, 6" x 12" cylinder (ASTM C39), each	20.00
Light Weight Concrete	
▪ Compression	20.00
▪ Unit Weight	20.00
Specimen preparation, trimming or coring, each	45.00
Bond Strength (ASTM C321)	
▪ Prepared by Converse	120.00
▪ Prepared by Others	60.00
Core Compression Test (ASTM C12), each.....	45.00
Flexure test, 6" x 6" beams (ASTM C78), each	60.00
Modulus of Elasticity - Static (ASTM C469), each.....	110.00
Length Change (3 bars, 5 readings each,	
up to 26 days) (ASTM C157)	250.00
Splitting Tensile, 6" x 12" cylinders, each	50.00
Field Concrete Control (sampling, slump, temperature,	
cast 4 cylinders, molds, cylinder pick-up, within	
10 mi. of office, stand-by extra)	
ASTM/UBC, hourly rate schedule, or each Cylinder	70.00
Field Concrete Control (same as above plus	
air content test) ASTM/UBC, hourly rate	
schedule, or each Cylinder	80.00
Hold Cylinder	7.00
Cylindrical Mold sent to job site but not casted by Converse or	
returned to Converse.....	5.00

MASONRY (ASTM C140, E447, UBC STANDARD 24-22)

Moisture Content, as received, each	20.00
Absorption, each	50.00
Compression, each	40.00
Shrinkage (ASTM C426), each	90.00
Net Area and Volume, each.....	25.00
Masonry Blocks, per set of 9.....	650.00
Masonry Core Compression, each	45.00
Masonry Core Shear, each	50.00
Masonry Core Trimming, each.....	45.00
Compression Test, grouted prisms,	
8" x 8" x 16", each.....	110.00
Compression Test, grouted prisms,	
12" x 16" x 16", each.....	140.00

Compression Test

▪ 2" x 4" Mortar Cylinder, each.....	20.00
▪ 3" x 6" Grout Prisms, each	20.00
▪ 2" Cubes (ASTM C109), each	20.00
Cast by others	20.00
Mortar or Grout Mix Designs.....	By Quote

FIREPROOFING TESTS

Oven Dry Density (per sample)	45.00
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ASPHALTIC CONCRETE

Stability, Flow, and Unit Weight, ASTM D6927.....	150.00
Marshall ASTM D1559, ASTM D2726	150.00
Measured Maximum Specific Gravity of Mix (ASTM D2041)	
(Ricos Method), each	75.00
Void Analysis of Cores or Marshall Specimens	
Calculations Only (ASTM D3203) set of 2 or 3	35.00
Laboratory Mixing of Asphalt & Concrete, per sample.....	50.00
Complete Asphalt Concrete Mix Design	
(Hveem or Marshall).....	By Quote
Extraction of Asphalt and Gradation (ASTM D2172, Method B)	
Or California 310, including ash correction, each	150.00
Extraction of Rubberized Asphalt and Gradation, each.....	170.00
Specific Gravity (ASTM D2726 or ASTM D1188)	
▪ uncoated.....	85.00
▪ coated	95.00
Immersion-Compression.....	400.00
Particle coating (ASTM 2489).....	45.00
Stripping (ASTM D1664).....	50.00
Moisture or Volatile Distillates in paving mixtures,	
or materials containing petroleum products or	
byproducts	120.00
Retained Strength (ASTM D1074/D1075)	
6 specimens	By Quote
Retained Stability, Mil, Std, 520A, Method 104,	
6 specimens	By Quote
CBR, ASTM D1883, including M/D curve, 1 point	210.00
Asphalt Temperature	15.00

STRUCTURAL STEEL

Tensile Test, #11 Bar or Smaller, each	45.00
Bend Test, #11 Bar or Smaller, each	35.00
Tensile Test, #14 Bar, each.....	115.00
Tensile Test, #18 Bar, each.....	310.00
Rebar coupler tensile test	65.00
Tensile Test, Welded #11 Bar or Smaller, each	50.00
Tensile Test, Welded #14 Bar, each	110.00
Tensile Test, Welded #18 Bar, each.....	300.00
Tensile Test, Mechanically Spliced Bar, #11 Bar or Smaller,	
each.....	150.00
Tensile Test, Mechanically Spliced Bar, #14 Bar, each.....	310.00

HIGH STRENGTH BOLT, NUT, AND WASHER TESTING

Wedge Tensile Test for A490 Bolts	
Under 100,000 lbs, each.....	45.00
Over 100,000 lbs, each.....	55.00
Wedge Tensile Test for A325 Bolts	
Under 100,000 lbs, each.....	50.00

HIGH STRENGTH BOLT, NUT, AND WASHER TESTING,
continued

Tensile Test – Anchor Bolts, tested with displacement transducers, each	300.00
Nut - Hardness, Proof, and Cone Proof Load Test, each	50.00
Washer - Hardness, each	30.00
A325 or A490 – Bolt hardness only, each	35.00
Bolt A325 or A490	
Wedge Tensile Under 100,000 lbs, and Hardness, each	80.00
Wedge Tensile Over 100,000 lbs, and Hardness, each	100.00
Bolt, Nut, and Washer - All Tests per set with bolts	
Under 100,000 lbs.	250.00
Over 100,000 lbs.	350.00

NOTES:

- (1) See *Geotechnical Laboratory Testing Schedule of Fees* for soil testing.
- (2) Hourly rates are available upon request.
- (3) Field laboratory rates are available upon request.
- (4) Listed unit rates are based upon the assumption that samples will be delivered to our laboratory at no cost to Converse.