



**DATE:** 05/03/2023  
**PROPOSAL No.:** P23627  
**CLIENT:** Santa Rosa City Schools  
**PROJECT:** Santa Rosa CS - Desoto Hall Roof and HVAC  
**LOCATION:** Santa Rosa

<b>ITEM: I</b>	<b>ESTIMATED DAYS</b>	<b>ESTIMATED HOURS</b>	<b>UNIT PRICE</b>	<b>ESTIMATED TOTAL</b>
<b>ONSITE TESTING &amp; INSPECTIONS</b>				
<b>STRUCTURAL STEEL</b>				
FIELD WELDING/UT/MT	2	8	\$115.00	\$1,840.00
<b>MISC FIELD TESTING SERVICES</b>				
EXPANSION/SCREW ANCHOR - INSTALL OBSERVATION	2	4	\$115.00	\$920.00
EXPANSION ANCHOR - TORQUE TESTING (PORTAL TO PORTAL)	2	4	\$115.00	\$920.00
<b>Preliminary Sub-Total of Onsite Testing &amp; Inspection (approx.)</b>				<b>\$3,680.00</b>
<b>ITEM: II</b>	<b>ESTIMATED DAYS</b>	<b>ESTIMATED HOURS</b>	<b>UNIT PRICE</b>	<b>ESTIMATED TOTAL</b>
<b>OFFSITE TESTING &amp; INSPECTIONS</b>				
STEEL SHOP VISUAL/UT/MT - DAY SHIFT *	2	8	\$115.00	\$1,840.00
<b>Preliminary Sub-Total of Offsite Testing &amp; Inspection (approx.)</b>				<b>\$1,840.00</b>
<b>ITEM: III</b>		<b>ESTIMATED UNIT/HOURS</b>	<b>UNIT PRICE</b>	<b>ESTIMATED TOTAL</b>
<b>LABORATORY TESTING &amp; ENGINEERING</b>				
WPS REVIEW		1	\$150.00	\$150.00
STAFF ENGINEER		1	\$150.00	\$150.00
FIELD SUPERVISION		1	\$150.00	\$150.00
PROJECT MANAGER		.5	\$150.00	\$75.00
PRINCIPAL ENGINEER IN CHARGE		1	\$375.00	\$375.00
FINAL LETTER/ENGINEER REVIEW		1	\$260.00	\$260.00
FINAL LETTER/STAMPED SUBMITTAL		1	\$270.00	\$270.00
<b>Preliminary Subtotal of Laboratory Testing &amp; Engineering (approx.)</b>				<b>\$1,430.00</b>
<b>Preliminary Estimated Fees</b>				<b>\$6,950.00</b>
<b>Project Administration (15%)</b>				<b>\$1,042.50</b>
<b>Total Preliminary Estimated Fees</b>				<b>\$7,992.50</b>

\*Steel shop price based on work being done in Northern California in one shop and one shift. If work is performed at night a 12.5% differential will be charged.  
 A 15% project administration fee will be charged monthly per invoice.  
 No contingency is budgeted by CTS for uncontrollable overtime, union or prevailing wage increases and unforeseen requirements that may arise in the specifications, as well as for work over the estimated hours. Owner should budget appropriate amount for budgetary purposes.  
 Estimate based on plans by ZFA Structural Engineers dated 3/7/23.  
 And DSA 103 File No 49-H7 Application No. 01-120615 dated 3/3/23.  
 The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

**2023 FEE SCHEDULE - P23627 5/3/2023**  
**PERSONNEL FEES AND BASIS OF CHARGES**  
**INSPECTIONS, ENGINEERING & SPECIAL SERVICES**

	<b>Standard Rate/Hour</b>	<b>Discounted Rate/Hour</b>
<b>* FIELD INSPECTION AND LABORATORY SERVICE</b>		
Steel Visual	<del>\$240.00</del>	\$115.00
Nondestructive - UT, MT, PT	\$245.00	
Steel Visual/UT Combination	\$245.00	
Concrete ACI	\$240.00	
Concrete ICC	\$240.00	
Masonry	\$240.00	
Fireproofing	\$240.00	
Shear Wall Nailing/Framing/Hold Downs	\$240.00	
Soil Technician w/Nuclear Gauge and/or Sand Cone <i>(portal-to-portal)</i>	\$240.00	
Asphalt Technician <i>(portal-to-portal)</i>	\$240.00	
Shoring/Soldier Piers	\$240.00	
Roofing & Waterproofing	\$240.00	
NACE Coating Inspection - Level II	\$290.00	
NACE Coating Inspection - Level III	\$350.00	
Multi-Disciplined Inspector	\$240.00	
Inspector Requiring G1 Pay Grade	\$290.00	
Specialty Inspector or Where Formal Certification is Required	\$240.00	
Field Inspector with Special Enhancement	\$240.00	
Safety Manager/Safety Inspector/JobSite Safety Accountability Supervisor (JSAS)	\$510.00	
Laboratory Technician	\$240.00	
Additional Sample Preparation Time	\$240.00	
Technician Typist	\$240.00	
<b>**PROFESSIONAL ENGINEERING SERVICES</b>		
Principal Engineer (Civil/Structural)	\$375.00	
Geotechnical Engineer	\$330.00	
Professional Geologist	\$315.00	
Consulting Engineer (Civil/Structural)	\$310.00	
Associate Engineer, Licensed	\$270.00	
Project Manager	<del>\$240.00</del>	\$150.00
Staff Engineer	<del>\$240.00</del>	\$150.00
Field Supervision	<del>\$240.00</del>	\$150.00
ASNT Level III	\$290.00	
Drafting	\$175.00	
Quality Control Manager	QOR	
<b>SPECIAL SERVICES</b>		
Portable and Mobile Laboratories, NDT and Soils	QOR	
* Epoxy Bolt/Expansion Anchor - Installation Observation	\$240.00	
* Epoxy Bolt/Expansion Anchor Proof Load Testing <i>(portal-to-portal)</i>	\$240.00	
* Coring, 1 Person (including equipment) <i>(portal-to-portal)</i>	\$315.00	
* Coring, 2 Persons (including equipment) <i>(portal-to-portal)</i>	\$470.00	
* Asphalt Coring <i>(portal-to-portal)</i>	\$340.00	
Project Research	QOR	
Ultrasonic Testing for Non-Metallic Materials	QOR	
Pavement Rehabilitation Analysis Using Deflections	QOR	
Roof Moisture Survey	QOR	
Soil Drilling Equipment	QOR	
Geotechnical Site Investigations/Foundation Reports	QOR	
Estimating Concrete Strength by the Maturity Method - Equipment Fee \$125/kit	ASTM C1074	
CSL/Crosshole Sonic Logging	QOR	
Vector Mapping	QOR	
Roof Uplift Testing	QOR	
Inclinometer Testing	QOR	
Vibration Monitoring/Accelerometer	QOR	
Tilt Monitoring	QOR	
External Windows And Doors Dynamic Water Penetration Testing	AAMA 501.1	
Curtain Wall Testing	AAMA 501.2	
Ground Penetrating Radar	QOR	
DCP - Dynamic Cone Penetrometer	QOR	
Gamma-Gamma Logging of CIDH Piles (Daily Rate)	CT233	
FGIA/AAMA Window and Skylight Testing (Daily Rate)	ASTM E1105, AAMA 501.2, 502 503	
Pachometer, Schmidt Hammer, Windsor Probe, Skidmore - Equipment Fee \$115/Day <i>(portal-to-portal)</i>	\$350.00	
Ultrasonic Pulse Velocity Testing - Equipment Fee \$250/Day <i>(portal-to-portal)</i>	ASTM C597	
Impact Echo Testing - Equipment Fee \$250/Day <i>(portal-to-portal)</i>	ASTM C1383	
Floor Flatness Testing FF/FL - Equipment Fee \$115/Day <i>(portal-to-portal)</i>	ASTM E1155	
Surface Frictional Properties Using Pendulum Tester - Equipment Fee \$115/Day <i>(portal-to-portal)</i>	ASTM E303	
Measuring Moisture Vapor Emission Rate (Calcium Chloride) - \$55/Kit <i>(portal-to-portal)</i>	ASTM F1869	
Relative Humidity Testing - \$75/Kit <i>(portal-to-portal)</i>	ASTM F2170	
Ferrosan - Equipment Fee \$115/day <i>(portal-to-portal)</i>	\$350.00	
GPR - Equipment Fee \$115/day <i>(portal-to-portal)</i>	\$400.00	
Administration, Secretarial, Special Projects, Notary, Certified Payroll	\$200.00	
Concrete/Grout/Mortar Mix Design Review (less than 48 hours notice - \$500)	\$375.00	
Welding Procedure Review (less than 48 hours notice - \$500)	<del>\$375.00</del>	\$300.00
Procedure Qualification Record (PQR) - Standard Procedure (document fee)	\$550.00	
Welding Procedure Specification (WPS) - Standard Procedure (document fee)	\$550.00	
Welder Qualification Test Record (WQTR) - Standard Procedure (document fee)	\$550.00	
DSA Interim Reports	\$225.00	
Geotechnical Pad Letter (less than 48 hours notice - \$550)	\$400.00	
Final Letter (less than 48 hours notice - \$550)	\$400.00	
<b>EXPERT WITNESS TESTIMONY</b>		
Court appearance, per day	\$3,000.00	
Court appearance, per half day	\$2,000.00	

\* Field inspection and laboratory technician services will be billed in accordance with minimums shown on Basis of Charges.

\*\*Professional engineering services will be billed in two hour increments.

## BASIS OF CHARGES

### GENERAL

Fees for tests and inspection include cost of technician, normal equipment and regular reports. Engineering services will be charged at applicable rates and will require travel and mileage charges for equipment transport and storage per code (portal to portal) from the nearest CTS laboratory. Soils testing with nuclear gauge and/or sand cone equipment and inspections requiring equipment will require applicable travel and mileage charges for equipment transport and storage per code (portal-to-portal) from the nearest CTS laboratory. Fees for special projects, services overseas, or elsewhere in the United States, will be quoted on request. With prior notification to Client; charges are subject to change at any time. Construction Testing Services reserves the right to adjust the rates quoted in this contract based upon any Union or prevailing wage increases and/or changes in any industry requirements.

### MINIMUM HOURLY CHARGES – INSPECTION

Technician personnel and the following minimum charges are contractual commitment:

One-half day or less	4 Hours
Over one-half day	8 Hours
Show-up time (less than 2 hours notice = 4 hour charge)	2 Hours

### WORKING HOURS AND PREMIUM TIME

Regular workday is the first 8 hours between 6:00 am and 6:00 pm Monday through Friday. Premium time is as follows:

Overtime, Weekdays and Saturdays (first 8 hours)	1.5 x quoted hourly rate
Overtime Saturdays (over 8 hours) and Sundays (first 8 hours)	2 x quoted hourly rate
Overtime Sundays (over 8 hours) and Holidays	3 x quoted hourly rate
Shift differential, swing and graveyard -	

(Work performed between 2:00 pm and 4:00 am) 12.5%/hour additional to base or quoted rate.

### MISCELLANEOUS CHARGES - Only Where Applicable

Notary Services Fee	\$40.00/each	
Facsimile Charges. Plus \$1.00/page (n/c for cover page)	\$7.00/minimum	
Wireless Router/Data Card for Jobsite Internet	\$135.00/day	
iPad Monthly Rental Fee	\$100.00/month	
Electronic Reporting Fees/Subscriptions (PlanGrid, BIM, etc.)	At Cost	
Parking Fees	At Cost	
Air Travel	Cost Plus 10%	
Outside Services	Cost Plus 20%	
Subsistence (per Union contract)	\$130.00/day	
Subsistence Premium: Meal Allowance (over 100 miles one way) (per Union contract)	\$30.00/day	
Subsistence Premium: Meal Allowance (over 150 miles one way) (per Union contract)	\$85.00/day	
Mileage	Standard Federal Rate	
Sample Pickup	\$30.00/each	
Sample Pickup Trip Charge	QOR	
Weekend Sample Pickup	\$150.00/each	
Project Administration	<del>48% of Monthly Invoice</del>	15% of Monthly Invoice
Samples Made by Others: Concrete Cylinders	\$130 + Test	
Samples Made by Others: All Other Tests	\$75.00 + Test	
Laboratory Sample Witness Fee	\$130.00	
Laboratory Sample Storage Fee (per sample)	\$120.00	
EZ Cure Boxes (Thermostatically Controlled Curing Boxes)	QOR	
Returned Check Fee	\$150.00	
Additional Sample Retention	QOR	

### TESTS

Testing fees shown include normal time for performing test. Samples requiring special preparation will be charged at the laboratory technician rate. Fees for tests not listed will be quoted upon request. There will be a minimum charge of \$100.00 for any engineering report. Please note some tests maybe tested by subconsultants. Samples delivered to the laboratory after 3:00pm or samples needing results within 24 hours will incur a 50% mark-up.

### INSURANCE

The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

### PAYMENT

Invoices will be submitted monthly or bimonthly for services performed during the preceding month and are payable on receipt. Interest of 1.5% per month (but not exceeding the maximum rate allowable by law) will be payable on any amounts not paid within 30 days, payment thereafter to be applied first to accrued interest and then to the principle unpaid amount. Attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by client. Visa, MasterCard and American Express payments are accepted however fees will apply. Visa and MasterCard payments require an additional 3% on top of the amount of the invoice being paid. American Express payments require an additional 4% on top of the amount of the invoice being paid.

**CONCRETE AND MASONRY TESTS**

		<b>Standard Rate/Each</b>	<b>Discounted Rate/Each</b>
<b>CONCRETE</b>			
Compressive Strength of Cylindrical Concrete Specimens (6x12)	ASTM C39 and CT521	\$95.00	
Compressive Strength of Cylindrical Concrete Specimens (4x8)	ASTM C39 and CT521	\$95.00	
Compressive Strength of Cylindrical Concrete Specimens (Over 8000 PSI)	ASTM C39 and CT521	\$170.00	
Cylinder molds. 6" x 12" and 4" x 8"	ASTM C470	\$90.00	
Compressive Strength of Lightweight Insulating Concrete	ASTM C495	\$110.00	
Compressive Strength of Cylindrical Concrete Core and Sawed Beam Specimens	ASTM C42	\$145.00	
Flexural Toughness of Fiber Reinforced Concrete (Round Panel)	ASTM C1550	\$555.00	
Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	ASTM C78	\$355.00	
Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	CT523 and CT524	\$355.00	
Length Change of Hardened Hydraulic-Cement Mortar and Concrete (Shrinkage, 1 Sample)	ASTM C157	\$180.00	
Shotcrete Nozzleman Qualification Letter (Per Nozzleman, Per Position)	ACI 506, ASTM C42 and C1140	\$505.00	
Shotcrete Pre-Qualification Cores (Compression and Visual)	ACI 506, ASTM C42 and C1140	\$130.00	
Shotcrete Production Cores	ASTM C1140	\$130.00	
Coefficient of Thermal Expansion	AASHTO T336	\$580.00	
Determining Density of Structural Lightweight Concrete (Cylinders)	ASTM C567	\$455.00	
Standard Specification for Concrete Made by Volumetric Batching and Mixing	ASTM C685	\$1,100.00	
Cement Quality Sampling	CBC 2010	\$705.00	
Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete	ASTM C472	\$70.00	
Splitting Tensile Strength of Cylindrical Concrete Specimens	ASTM C496	\$275.00	
Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression	ASTM C469	\$255.00	
Grab Sample, Sealing and Storing in a Humidity and Temperature Controlled Room	CBC	\$165.00	
Density of Hydraulic Cement	ASTM C188	\$225.00	
Testing of Controlled Low Strength Material (CLSM) Test Cylinders	ASTM D4832	\$180.00	
GFRC Pull Test	PCI	\$445.00	
GFRC Flexural Test	PCI	\$445.00	
Foaming Agents for Use in Producing Cellular Concrete Using Preformed Foam (Cell-Crete)	ASTM C796	\$605.00	
<b>MASONRY</b>			
Compressive Testing of Grout (Masonry)	ASTM C1019	\$140.00	
Compressive Strength of Hydraulic Cement Mortars Using 2" Cube Specimens	ASTM C109	\$140.00	
Compressive Strength of Masonry Prisms	ASTM C1314	\$215.00	
Testing Concrete Masonry Units and Related Units (Core Compression)	CBC 2105A.4	\$215.00	
Compressive Strength of Molded Masonry Mortar Cylinders and Cubes (2" Sample)	ASTM C780 A7.6	\$140.00	
Testing Concrete Masonry Units (CMU) and Related Units (Full Unit)	ASTM C140	\$215.00	
Linear Drying Shrinkage of Concrete Masonry Units (Per Unit)	ASTM C426	\$320.00	
Masonry Core Shear Testing	CBC 2105A.4	\$320.00	
Testing Concrete Masonry Units (Absorption, Moisture Content, Unit Weight)	ASTM C140	\$395.00	
Brick and Clay Tile (modulus of rupture, compression, saturation coefficient, suction rate, efflorescence)*	ASTM C67	\$1,055.00	
Mortar Molds. 2" x 4". Single Use		\$140.00	
Mortar or Grout, Stored and Cured, Not Tested (Including Mold)		\$140.00	
Veneer Bond Testing, does not include sample fabrication (Set of 5)	ASTM C482	\$530.00	
<b>AGGREGATES (CONCRETE AND SOILS)</b>			
Sieve Analysis of Coarse Aggregates (Coarse Only 2" - No.4)(sample size over 2" QOR)	ASTM C136, CT202, and AASHTO T-27	\$250.00	
	ASTM C136/C117, CT202, and AASHTO T-27/AASHTO T-11	\$320.00	T-
Sieve Analysis of Fine Aggregates (Fine Only, Wash Included No.4 - No.200)	ASTM C136/C117, CT202, and AASHTO T-27/AASHTO T-11	\$405.00	T-
Sieve Analysis of Combined Fine and Coarse Aggregates (Wash Included 2" - No.200) (sample size over 2" QOR)	ASTM C117, CT202, and AASHTO T-11	\$250.00	
Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing (200 Wash)	CT227	\$405.00	
Evaluating Cleanness of Coarse Aggregate	ASTM C88, CT214, and AASHTO T-104	\$330.00	
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	ASTM C29, CT212, and AASHTO T-19	\$230.00	
Bulk Density/Unit Weight of Aggregate	ASTM C142 and AASHTO T-19	\$255.00	
Clay Lumps and Friable Particles in Aggregates	ASTM D4791 and CT235	\$420.00	
Flat Particles, Elongated Particles or Flat and Elongated Particles in Coarse Aggregate	ASTM C40 and CT213	\$420.00	
Organic Impurities in Fine Aggregates for Concrete	ASTM C127, CT206, and AASHTO T-85	\$420.00	
Density, Relative Density(Specific Gravity), and Absorption of Coarse Aggregate	ASTM C128, CT207, and AASHTO T-84	\$420.00	
Density, Relative Density(Specific Gravity), and Absorption of Fine Aggregate			
Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C131, C211, and AASHTO T-96	\$570.00	
Resistance to Degradation of Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C535	\$570.00	
Percentage of Crushed Particles/Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate	ASTM D5821, CT205, and AASHTO T-335	\$455.00	
Uncompacted Void Content of Fine Aggregate (as Influenced by Particle Shape, Surface Texture, and Grading)	ASTM C1252, CT234, and AASHTO T304A	\$455.00	
Sand Equivalent Value of Soils and Fine Aggregate	ASTM D2419, CT217, and AASHTO T-176	\$320.00	
Durability Index (Fine)	ASTM D3744, CT229, AASHTO T-210	\$455.00	
Durability Index (Coarse)	ASTM D3744, CT229, AASHTO T-210	\$455.00	
Durability Index (Fine and Coarse)	ASTM D3744, CT229, AASHTO T-210	\$455.00	
Lightweight Particles in Aggregate	ASTM C123 and AASHTO T113	QOR	
Resistance of Rock to Wetting and Drying	CRD-C169	\$630.00	
Aggregate Moisture Content	ASTM C566	\$630.00	

\*Unusual sample preparation for brick specimen will be charged at the established hourly rate.

**SOILS AND AGGREGATE SERVICES AND TESTS**

<b>SOILS</b>		<b>Standard Rate/Each</b>
Moisture Content of Soil by Oven	ASTM D2216, CT226, and AASHTO T-265	\$175.00
Moisture Content of Soil by Microwave Oven	ASTM D4643	\$230.00
Density of Soil in Place by the Drive-Cylinder Method including Moisture Content of Soil by Oven	D2937	\$260.00
Remold of Soil Samples	Varies	\$155.00
Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter (Permeability)	ASTM D5084	\$605.00
Permeability Additional Cell Time		\$605.00
Direct Shear Test of Soils Under Consolidated Drained Conditions (per point)	ASTM D3080	\$605.00
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (three points)	ASTM D4767	\$1,105.00
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (added points)	ASTM D4767	\$380.00
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (single point)	ASTM D4767	\$380.00
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (includes 3 points)(includes Pore Pressures)	ASTM D4767	\$1,955.00
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (added points)(includes Pore Pressures)	ASTM D4767	\$655.00
Consolidated Undrained Triaxial Compression Test for Cohesive Soils (single point)(includes Pore Pressures)	ASTM D4767	\$655.00
Unconsolidated Undrained Triaxial Compression Test for Cohesive Soils (per point)	ASTM D2850	\$190.00
Unconsolidated Undrained Triaxial Compression Test for Cohesive Soils with added backpressure saturation (per point)	ASTM D2850	\$320.00
One-Dimensional Consolidation Properties of Soils Using Incremental Loading	ASTM D2435	\$580.00
Unconfined Compressive Strength of Cohesive Soil	ASTM D2166 and CT221	\$230.00
Compressive Strength of Molded Soil-Cement Cylinders	ASTM D1633	\$305.00
Particle-Size Analysis of Soils (with Hydrometer)	ASTM D422	\$665.00
Particle-Size Analysis of Soils (without Hydrometer)	ASTM D422	\$605.00
Particle-Size Distribution of Fine Grained Soils using Sedimentation Analysis	ASTM D7928 and ASTM D422	\$605.00
Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis (2" - No.200) (sample size over 2" QOR)	ASTM D6913	\$390.00
Material Finer than No.200 by Washing (200 Wash)	ASTM D1140	\$240.00
Liquid Limit, Plastic Limit, and Plasticity Index of Soils	ASTM D4318 and CT204	\$605.00
Determination of Organic Soils Classification using Liquid Limit of Soils	ASTM D4318/D2487	\$780.00
Organic Content of Soils and Peat	ASTM D2974	\$335.00
Unified Soil Classification System (USCS) Test	ASTM D2487	\$355.00
Moisture-Density Relations of Soil Using Modified Effort (Modified Proctor)	ASTM D1557	\$355.00
Moisture-Density Relations of Soil Using Standard Effort (Standard Proctor)	ASTM D698	\$530.00
Moisture-Density Relations of Soil Using Modified DWR Method	DWR Modified	\$530.00
Moisture-Density Relations of Soil Using Rapid Compaction Method	ASTM D5080	\$530.00
Moisture-Density Relations of Soil-Cement Mixtures	ASTM D558	\$530.00
Moisture-Density Relations of Soil, 1 Point Check Point	ASTM D698	\$405.00
Moisture-Density Relations of Soil, 2 Point Check Point	ASTM D698	\$455.00
Moisture-Density Relations of Soil, 3 Point Check Point	ASTM D698	\$530.00
Moisture-Density Relations of Soil, 1 Point Check Point	ASTM D1557	\$355.00
Moisture-Density Relations of Soil, 2 Point Check Point	ASTM D1557	\$455.00
Moisture-Density Relations of Soil, 3 Point Check Point	ASTM D1557	\$530.00
Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	ASTM D4253	\$555.00
Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density	ASTM D4254	\$335.00
Maximum Dry Unit Weight of Granular Soils Using a Vibrating Hammer	ASTM D7382	\$505.00
Relative Compaction of Untreated and Treated Soils and Aggregates	CT216	\$605.00
Determining the Resistance "R" Value of Treated and Untreated Bases, Subbases, and Basement Soils by the Stabilometer	ASTM D2844 and CT301	\$655.00
Expansion Index of Soils	ASTM D4829	\$505.00
Standard Test Methods for Specific Gravity of Soil Solids by Water Pycnometer	ASTM D854	\$405.00
pH of Soils	ASTM D4972	\$555.00
Density of Hydraulic Cement	ASTM C188	\$380.00
Volatile Organic Content	EPA 8260B	QOR
Semi Volatile Organics by GC/MS (Basic Target List)	EPA 8270C	QOR
Total Organic Carbon	ASTM 2974/EPA 5310Bm	QOR
ICP Metals Concentration	EPA 6020 - CAM/CCR 17	QOR
Total Extractable Petroleum Hydrocarbons: TPH, MTBE, Benzene, Toluene, Ethylbenzene, Zylenes, %SS	EPA 8015B	QOR
ICP Metals Concentration	EPA 6020	QOR
pH	EPA 9045D	\$605.00
Sequential Batch Extraction of Waste with Acidic Extraction Fluid	ASTM D5284	QOR
Chromium Soluble	EPA 7196A	QOR
Caltrans Corrosivity Package		\$580.00
Determining Field and Laboratory Resistivity and pH Measurements for Soil and Water	CT643	QOR
Soils and Waters for Sulfate Content	CT417	QOR
Soils and Waters for Chloride Content	CT422	QOR
Pore Water Extraction and Determination of the Soluble Salt Content of Soils by Refractometer	ASTM D4542	\$705.00
California Bearing Ratio Test (does not include moisture density relations)	ASTM D1883	\$405.00
Bentonite Slurry Testing		QOR

\* Unusual sample preparation (dried clays, saturated clays, etc.) and all other tests for treated or untreated soils, aggregate subbase and aggregate base will be charged at established rates for laboratory technician.

\*\* Does not include sample preparation or sieve analysis

**ASPHALTIC CONCRETE SERVICES AND TESTS**

		<b>Standard Rate/Each</b>
<b>ASPHALT</b>		
Thickness/Height of Compacted Bituminous Paving Mixture Specimens Field Cores	ASTM D3549 and CT308	\$205.00
Bulk Specific Gravity of Compacted Bituminous Mixture (Individual field cores or lab compacted)	ASTM D1188, ASTM D2726, CT308, AASHTO	\$320.00
Lab Compaction Only of Bituminous Mixture by Marshall Apparatus (Marshall) (Per Specimen)	ASTM D6926	\$320.00
Lab Compaction Only of Bituminous Mixture by CA Kneading Compactor (HVEEM) (Per Specimen)	ASTM D1561, CT304, and AASHTO T-247	\$320.00
Lab Compaction Only of Bituminous Mixture by Superpave Gyrotory (Superpave) (Per Specimen)	ASTM D6925, and AASHTO T-312	\$320.00
Laboratory Test Max Density (LTMD) (5 Specimen, includes compaction of specimen and bulk specific)	ASTM D1561/(D1188 and D2726) and	\$1,155.00
Superpave Bulk specific gravity (includes gyrotory compaction of 3 specimen and bulk specific gravity)	AASHTO T-312/T-275/T-166	\$1,155.00
Marshall Lab Compacted Max Density (3 Specimen, includes compaction of specimen and bulk specific)	ASTM D6926/(D1188 and D2726)	\$1,155.00
Theoretical Maximum Specific Gravity and Density (Rice)	ASTM D2041, CT309, and AASHTO T-209	\$505.00
Marshall Stability and Flow of Bituminous Mixtures (average Set of 3, includes sample compaction)	ASTM D6926/ASTM D6927	\$1,155.00
Measuring the Permeability of Bituminous Pavements and Seal Coats	CT341	QOR
Swell of Bituminous Mixtures	CT305	\$445.00
Moisture Vapor Susceptibility of Bituminous Mixtures/Moisture or Volatile Distillates in Asphalt	ASTM D1461 and CT307	\$1,005.00
Stabilometer Value of field compacted cores (Per Specimen)	ASTM D1560, CT366, and AASHTO T-246	\$450.00
Stabilometer Value of Lab compacted samples (Average of 3 Specimen, Includes Sample Compaction)	ASTM D1561/D1560, CT304/CT366, and	\$1,155.00
Determination of Asphalt Content of Bituminous Paving Mixtures by the Ignition Method	ASTM D6307, CT382, and AASHTO T-308	\$455.00
Determination of Correction Factor of Bituminous Paving Mixtures by the Ignition Method	ASTM D6307, CT382, and AASHTO T-308	\$455.00
Quantitative Extraction of Bitumen from Bituminous Paving Mixtures (Solvent)	ASTM D2172 and CT310	\$805.00
Mechanical Size Analysis (Coarse and Fine) of Extracted Aggregate (Afterburn Gradation)	ASTM D5444, CT202, and AASHTO T-30	\$455.00
Moisture Content of Bituminous Mixture	CT370 and AASHTO T-329	\$480.00
Effect of Water on Compressive Strength of Compacted Bituminous Mixtures (Set of 6)	ASTM D1075	\$3,705.00
Compressive Strength of Bituminous Mixtures	ASTM D1074	\$355.00
Hamburg Wheel Track (includes compaction by gyrotory)(includes 2 runs)	AASHTO T324	\$4,005.00
Tensile Strength Ratio (TSR) Moisture Susceptibility (includes compaction of 6 Specimen)	ASTM D4867 and AASHTO T-283	\$4,005.00
Tensile Strength Ratio (TSR) Moisture Susceptibility (includes compaction of 12 Specimen)	CT371	\$6,005.00
Indirect Tensile (IDT) Strength of Bituminous Mixtures	ASTM D6931	\$3,755.00
Air Voids Calculation of Compacted Bituminous Mixture	ASTM D3203, CT367, and AASHTO T-269	\$220.00
PG Verification (Determining Low Temperature Performance Grade (PG) of Asphalt Binders)	ASTM 6816	QOR

**MECHANICAL TESTS AND FIREPROOFING**
**MATERIALS MECHANICAL TESTS**

Mechanical Testing of Steel Products (General Tensile)	ASTM A370	\$555.00
Fillet Weld Break Test for Qualification (Welding)	AWS B4.0	\$255.00
Tension Testing of Metallic Materials, Tension Testing Wrought and Cast Aluminum and Magnesium-Alloy	ASTM E8, B557 and AWS B4.0	\$555.00
Mechanical Testing of Steel Products (Couplers)	ASTM A370	\$555.00
Impact Testing of Miniaturized Charpy V-Notch Specimens, Notched Bar Impact Testing of Metallic	ASTM E2248 and ASTM E23	QOR
Testing, Practices, and Terminology for Chemical Analysis of Steel Products	ASTM A751	\$380.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #3-#8	ASTM A370 and E290	\$445.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #9-#11	ASTM A370 and E290	\$505.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #14+	ASTM A370 and E290	QOR
Mechanical Testing of Steel Products, Standard Specification for Steel Wire, Plain, for Concrete	ASTM A370, A82 and A185	\$505.00
Guided Bend Test for Ductility of Welds, Mechanical Testing of Welds	ASTM E190 and AWS B4.0	\$355.00
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Anchor Bolts Only	ASTM F307, F1554 and F606	\$605.00
Rockwell Hardness of Metallic Materials	ASTM E18	\$190.00
Proof Test for Carbon and Alloy Steel (Nuts Only)	ASTM A194 or A563	\$380.00
Radiographic Examination of Metallic Castings/Weldments	ASTM E94, E1030 and E1032	QOR
Macroetching Metals and Alloys	ASTM E340, E381 and AWS	\$380.00
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct	ASTM F606	\$430.00
Mechanical Testing of Steel Products (Terminators Tensile)	ASTM A370	\$430.00
Strength for Sewn or Bonded Seams of Geotextiles	ASTM D4884	\$380.00
Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure	ASTM D2261	\$380.00
Breaking Strength and Elongation of Textile Fabrics (Grab Test)	ASTM D5034	\$330.00
Tensile Properties of Fiber Reinforced Polymer Matrix Composite Bars	ASTM D3039	\$1,055.00
Steel Strand, Uncoated Seven-Wire for Prestressed Concrete (Set of 2)	ASTM A416 and A1061	\$1,605.00

**FIREPROOFING**

Thickness and Density of Sprayed Fire-Resistive Material (SFRM)	ASTM E605	\$300.00
Cohesion/Adhesion of Sprayed Fire-Resistive Materials (Test Kit Only)	ASTM E736	\$90.00

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