

Agenda Item No: 5.h

Meeting Date: December 20, 2021

SAN RAFAEL CITY COUNCIL AGENDA REPORT

Department: Public Works

Prepared by: Bill Guerin, City Manager Approval:

Director of Public Works

File No.: 06.01.245

TOPIC: FIRE STATION 54 & 55 - MATERIALS TESTING AND SPECIAL INSPECTION,

AND GEOTECHNICAL TESTING AND INPSECTION SERVICES

SUBJECT: RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE A

PROFESIONAL SERVICES AGREEMENT WITH BSK ASSOCIATES FOR MATERIALS TESTING AND SPECIAL INSPECTION SERVICES AND GEOTECHNICAL TESTING AND INSPECTION RELATED TO PHASE 2 ESSENTIAL FACILITIES PROJECTS - FIRE STATION 54 AND 55 IN THE

AMOUNT OF \$145,744.

RECOMMENDATION: Adopt a resolution approving and authorizing the City Manager to execute the professional services agreement with BSK Associates ("BSK") related to Materials Testing and Special Inspection and Geotechnical Testing and Inspection Services fees concerning Fire Station 54 and 55 Project, in an amount not to exceed \$145,744.

BACKGROUND:

On November 5, 2013, Measure E passed extending the existing one-half percent local sales tax and increasing the rate by one-quarter percent to provide funding that cannot be taken by the State and can be used to preserve essential city services. The City has since used those resources to plan, design, construct and manage two new stand-alone fire stations, 52 and 57, and a new Public Safety Center (PSC) that incorporates Fire Station 51. These three projects are collectively referred to as "Phase 1" of the City's Essential Facilities Program. They have all been successfully completed, occupied and operational. The Essential Facilities program also includes the design, construction, and management of Fire Stations 54 and 55 referred to as "Phase 2".

On October 18, 2021, the City Council adopted Resolution No. <u>14988</u> awarding the construction contract for the Fire Station 54 and 55 Project to Wickman Development and Construction. Construction of the Fire Stations is intended to start in early 2022.

ANALYSIS:

Essential Facilities require that various inspection tasks be performed to ensure that the buildings are in compliance with Code and that they remain available during and after seismic and other destructive events occur.

FOR CITY CLERK ONLY

Council Meeting:

Disposition:

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Materials Testing and Special Inspections as well as Geotechnical Testing and Inspection Services will be required during construction of the Fire Station 54 and 55 Project. The testing firm will provide detailed testing and monitoring of specific specialty items such as weld inspections (including x-rays), concrete strength testing, and rebar placement to ensure that the rebar is placed properly. The testing firm will also sample the soils and tests for compaction and overall suitability to receive the building. The testing firm utilizes specialty equipment and laboratory analysis to perform the testing of materials placed.

An Inspector of Record will also be required to ensure overall quality of the work and to ensure that the project is being constructed according to plans and specifications.

A separate professional services contract will be developed for Inspection of Record services and will be presented to the City Council at a future Council meeting.

On November 1, 2021, Public Works solicited statements of qualifications for Testing and Special Inspections as well as Geotechnical Testing and Inspection services. Statements from six qualified firms were received on November 12, 2021. All were evaluated by City staff based on criteria specified in the request for qualifications. These criteria included expertise in the work to be performed, prior experience with similar projects, qualified personnel, and references.

BSK Associates has been selected as the most qualified firm to provide the necessary services for the project.

Upon City staff request, BSK has submitted a proposal to perform these services for a not to exceed amount of \$145,744 (Attachment 3). Staff recommends authorizing the City Manager to execute the agreement BSK Associates for materials testing and special inspection services and geotechnical testing and inspection services in the form attached as Attachment 2 to this report, subject to final approval as to form by the City Attorney.

FISCAL IMPACT: These funds will be appropriated from the portion of Measure E revenues allocated to public safety facilities construction and improvements.

OPTIONS:

- Adopt a resolution authorizing the City Manager to execute a professional services agreement with BSK related to the provision of materials testing and special inspection services and geotechnical testing and inspection services concerning Fire Stations 54 and 55, in the amount not to exceed \$145,744.
- 2. Do not adopt the resolution and provide direction to staff. If this option is chosen, project bid delays will delay renovation of the buildings.

RECOMMENDED ACTION: Adopt a resolution authorizing the City Manager to execute the professional services agreement with BSK Associates.

ATTACHMENTS:

1. Resolution Authorizing the City Manager to Execute a Professional Services Agreement with BSK Associates for Materials Testing and Special Inspection Services and Geotechnical Testing and Inspection Related to Phase 2 Essential Facilities Projects - Fire Station 54 and 55, in the Amount of \$145,744.

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- 2. Professional Services Agreement with BSK Associates for materials testing and special inspection services as well as geotechnical testing and inspection services for the Fire Stations 54 and 55 Renovation Project
- 3. Proposal Exhibit "A" to Professional Services Agreement.

RESOLUTION NO.

RESOLUTION OF THE SAN RAFAEL CITY COUNCIL AUTHORIZING THE CITY MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH BSK ASSOCIATES FOR MATERIALS TESTING AND SPECIAL INSPECTION SERVICES AND GEOTECHNICAL TESTING AND INSPECTION RELATED TO PHASE 2 ESSENTIAL FACILITIES PROJECTS - FIRE STATION 54 AND 55 IN THE AMOUNT OF \$145,744

- **WHEREAS**, in November 2013, the local voters passed Measure E extending the existing one-half percent local sales tax and increasing the rate by one-quarter percent to provide funding to preserve essential city services. This tax supplanted the former, one-half cent transactions and use tax (Measure S), effective April 1, 2014; and
- **WHEREAS**, the City has since used those resources to plan, design, construct and manage two new stand-alone fire stations, 52 and 57, and a new Public Safety Center (PSC) that incorporates Fire Station 51. These three projects, collectively referred to as "Phase 1" of the City's Essential Facilities Program, have successfully been completed and occupied; and
- **WHEREAS**, the Essential Facilities program also includes the design, construction and management of Fire Stations 54 and 55 referred to as "Phase 2"; and
- **WHEREAS**, the City successfully bid the Fire Station 54 and 55 Project and has awarded the construction contract to the lowest responsible bidder; and
- **WHEREAS**, Essential Facilities require that various inspection tasks be performed to ensure that the buildings are in compliance with Code and that they remain available during and after seismic and other destructive events occur; and
- **WHEREAS**, on November 1, 2021, Public Works solicited statements of qualifications for Testing and Special Inspections as well as Geotechnical Testing and Inspection services; and
- **WHEREAS**, on November 12, 2021 statements from six qualified firms were received and evaluated by City staff based on the criteria specified in the request for qualifications; and these criteria included expertise in the work to be performed, prior experience with similar projects, qualified personnel, and references; and
- **WHEREAS**, BSK Associates has been selected as the most qualified firm to provide the necessary services for the Project;
- **NOW**, **THEREFORE**, **BE IT RESOLVED** by the City Council of the City of San Rafael as follows:
 - 1. The City Manager is hereby authorized to execute a Professional Services Agreement with BSK Associates, in the form included with the staff report for this resolution, subject to final approval by the City Attorney, for necessary materials testing and special inspection and geotechnical testing and inspection services in the amount of \$145,744.
 - 2. Funds totaling \$145,744 will be appropriated for City Project No. 11394 and 11395 from the Essential Facilities Capital Projects Fund (#420).
- **I, LINDSAY LARA**, Clerk of the City of San Rafael, hereby certify that the foregoing Resolution was duly and regularly introduced and adopted at a regular meeting of the City Council of said City held on Monday, the 20th day of December 2021 by the following vote, to wit:

AYES: COUNCILMEMBERS:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

Lindsay Lara, City Clerk

AGREEMENT

FOR PROFESSIONAL TESTING AND INSPECTION SERVICES

WITH BSK ASSOCIATES

This Agreement is made and entered into this	day of	, 20, by
and between the CITY OF SAN RAFAEL (hereinafte	er "CITY"), and BSK AS	SOCIATES, a
Corporation authorized to do business in California (herei	nafter "CONSULTANT").	

RECITALS

WHEREAS, the CITY requires professional services for materials testing and special inspection services AND geotechnical testing and inspection services related to phase 2 essential facilities projects; and

WHEREAS, the CONSULTANT has agreed to render such services.

AGREEMENT

NOW, THEREFORE, the parties hereby agree as follows:

1. PROJECT COORDINATION.

- A. **CITY'S Project Manager.** Fabiola Guillen-Urfer is hereby designated the PROJECT MANAGER for the **CITY** and said PROJECT MANAGER shall supervise all aspects of the progress and execution of this Agreement.
- B. CONSULTANT'S Project Director. CONSULTANT shall assign a single PROJECT DIRECTOR to have overall responsibility for the progress and execution of this Agreement for CONSULTANT. Timothy Rodriguez is hereby designated as the PROJECT DIRECTOR for CONSULTANT. Should circumstances or conditions subsequent to the execution of this Agreement require a substitute PROJECT DIRECTOR, for any reason, the CONSULTANT shall notify the CITY within ten (10) business days of the substitution.

2. DUTIES OF CONSULTANT.

CONSULTANT shall perform the duties and/or provide services as outlined in **CONSULTANT**'s proposal dated December 9, 2021, marked as Exhibit A, attached hereto and incorporated herein, summarized on page 5, in the second full paragraph therein as the "basic scope of services" for Fire Station 54 and Fire Station 55 and the "optional scope of services" for GEOR Services-Alternative.

3. DUTIES OF CITY.

CITY shall pay the compensation as provided in Paragraph 4, and perform the duties as follows outlined in Exhibit A.

4. <u>COMPENSATION</u>.

For the full performance of the services described herein by **CONSULTANT**, **CITY** shall pay **CONSULTANT** on a time and materials and on-call basis for services rendered in accordance with the rates shown in Exhibit A, summarized as \$84,170 for Fire Station 54; \$55,854 for Fire Station 55; and \$5,720 for the "optional scope of services" for GEOR Services-Alternative in the amount of \$5,720, for a total not-to-exceed amount of \$145,744.

Payment will be made monthly upon receipt by PROJECT MANAGER of itemized invoices submitted by **CONSULTANT**.

5. TERM OF AGREEMENT.

The term of this Agreement shall be for 18 months commencing upon date of execution of this agreement. Upon mutual agreement of the parties, and subject to the approval of the City Manager the term of this Agreement may be extended for an additional period of up to 18 months.

6. TERMINATION.

- A. **Discretionary**. Either party may terminate this Agreement without cause upon thirty (30) days written notice mailed or personally delivered to the other party.
- B. Cause. Either party may terminate this Agreement for cause upon fifteen (15) days written notice mailed or personally delivered to the other party, and the notified party's failure to cure or correct the cause of the termination, to the reasonable satisfaction of the party giving such notice, within such fifteen (15) day time period.
- C. **Effect of Termination**. Upon receipt of notice of termination, neither party shall incur additional obligations under any provision of this Agreement without the prior written consent of the other.
- D. **Return of Documents**. Upon termination, any and all **CITY** documents or materials provided to **CONSULTANT** and any and all of **CONSULTANT's** documents and materials prepared for or relating to the performance of its duties under this Agreement, shall be delivered to **CITY** as soon as possible, but not later than thirty (30) days after termination.

7. OWNERSHIP OF DOCUMENTS.

The written documents and materials prepared by the **CONSULTANT** in connection with the performance of its duties under this Agreement, shall be the sole property of **CITY**. **CITY** may use said property for any purpose, including projects not contemplated by this Agreement.

8. <u>INSPECTION AND AUDIT</u>.

Upon reasonable notice, **CONSULTANT** shall make available to **CITY**, or its agent, for inspection and audit, all documents and materials maintained by **CONSULTANT** in connection with its performance of its duties under this Agreement. **CONSULTANT** shall fully cooperate with **CITY** or its agent in any such audit or inspection.

9. ASSIGNABILITY.

The parties agree that they shall not assign or transfer any interest in this Agreement nor the performance of any of their respective obligations hereunder, without the prior written consent of the other party, and any attempt to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

10. INSURANCE.

- A. **Scope of Coverage.** During the term of this Agreement, **CONSULTANT** shall maintain, at no expense to **CITY**, the following insurance policies:
- 1. A commercial general liability insurance policy in the minimum amount of one million dollars (\$1,000,000) per occurrence/two million dollars (\$2,000,000) aggregate, for death, bodily injury, personal injury, or property damage.
- 2. An automobile liability (owned, non-owned, and hired vehicles) insurance policy in the minimum amount of one million dollars (\$1,000,000) dollars per occurrence.
- 3. If any licensed professional performs any of the services required to be performed under this Agreement, a professional liability insurance policy in the minimum amount of one million dollars (\$1,000,000) per occurrence/two million dollars (\$2,000,000) aggregate, to cover any claims arising out of the **CONSULTANT's** performance of services under this Agreement. Where **CONSULTANT** is a professional not required to have a professional license, **CITY** reserves the right to require **CONSULTANT** to provide professional liability insurance pursuant to this section.
- 4. If it employs any person, **CONSULTANT** shall maintain worker's compensation insurance, as required by the State of California, with statutory limits, and employer's liability insurance with limits of no less than one million dollars (\$1,000,000) per accident for bodily injury or disease. **CONSULTANT's** worker's compensation insurance shall be specifically endorsed to waive any right of subrogation against **CITY**.
- B. **Other Insurance Requirements.** The insurance coverage required of the **CONSULTANT** in subparagraph A of this section above shall also meet the following requirements:
- 1. Except for professional liability insurance or worker's compensation insurance, the insurance policies shall be specifically endorsed to include the CITY, its officers,

agents, employees, and volunteers, as additional insureds (for both ongoing and completed operations) under the policies.

- 2. The additional insured coverage under **CONSULTANT'S** insurance policies shall be "primary and noncontributory" with respect to any insurance or coverage maintained by **CITY** and shall not call upon **CITY's** insurance or self-insurance coverage for any contribution. The "primary and noncontributory" coverage in **CONSULTANT'S** policies shall be at least as broad as ISO form CG20 01 04 13.
- 3. Except for professional liability insurance or worker's compensation insurance, the insurance policies shall include, in their text or by endorsement, coverage for contractual liability and personal injury.
- 4. By execution of this Agreement, **CONSULTANT** hereby grants to **CITY** a waiver of any right to subrogation which any insurer of **CONSULTANT** may acquire against **CITY** by virtue of the payment of any loss under such insurance. **CONSULTANT** agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not **CITY** has received a waiver of subrogation endorsement from the insurer.
- 5. If the insurance is written on a Claims Made Form, then, following termination of this Agreement, said insurance coverage shall survive for a period of not less than five years.
- 6. The insurance policies shall provide for a retroactive date of placement coinciding with the effective date of this Agreement.
- 7. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and noncontributory basis for the benefit of **CITY** (if agreed to in a written contract or agreement) before **CITY'S** own insurance or self-insurance shall be called upon to protect it as a named insured.
- 8. It shall be a requirement under this Agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to CITY or any other additional insured party. Furthermore, the requirements for coverage and limits shall be: (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater. No representation is made that the minimum Insurance requirements of this agreement are sufficient to cover the obligations of the **CONSULTANT** under this agreement.
- C. **Deductibles and SIR's.** Any deductibles or self-insured retentions in **CONSULTANT's** insurance policies must be declared to and approved by the PROJECT MANAGER and City Attorney and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or **CITY** or other additional insured party. At **CITY's** option,

the deductibles or self-insured retentions with respect to CITY shall be reduced or eliminated to CITY's satisfaction, or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claims administration, attorney's fees and defense expenses.

D. **Proof of Insurance**. **CONSULTANT** shall provide to the PROJECT MANAGER or **CITY'S** City Attorney all of the following: (1) Certificates of Insurance evidencing the insurance coverage required in this Agreement; (2) a copy of the policy declaration page and/or endorsement page listing all policy endorsements for the commercial general liability policy, and (3) excerpts of policy language or specific endorsements evidencing the other insurance requirements set forth in this Agreement. **CITY** reserves the right to obtain a full certified copy of any insurance policy and endorsements from **CONSULTANT**. Failure to exercise this right shall not constitute a waiver of the right to exercise it later. The insurance shall be approved as to form and sufficiency by PROJECT MANAGER and the City Attorney.

11. <u>INDEMNIFICATION</u>.

- Except as otherwise provided in Paragraph B., CONSULTANT shall, to the fullest A. extent permitted by law, indemnify, release, defend with counsel approved by CITY, and hold harmless CITY, its officers, agents, employees and volunteers (collectively, the "City Indemnitees"), from and against any claim, demand, suit, judgment, loss, liability or expense of any kind, including but not limited to attorney's fees, expert fees and all other costs and fees of litigation, (collectively "CLAIMS"), arising out of CONSULTANT'S performance of its obligations or conduct of its operations under this Agreement. The CONSULTANT's obligations apply regardless of whether or not a liability is caused or contributed to by the active or passive negligence of the City Indemnitees. However, to the extent that liability is caused by the active negligence or willful misconduct of the City Indemnitees, the CONSULTANT's indemnification obligation shall be reduced in proportion to the City Indemnitees' share of liability for the active negligence or willful misconduct. In addition, the acceptance or approval of the CONSULTANT's work or work product by the CITY or any of its directors, officers or employees shall not relieve or reduce the CONSULTANT's indemnification obligations. In the event the City Indemnitees are made a party to any action, lawsuit, or other adversarial proceeding arising from CONSULTANT'S performance of or operations under this Agreement, CONSULTANT shall provide a defense to the City Indemnitees or at CITY'S option reimburse the City Indemnitees their costs of defense, including reasonable attorneys' fees, incurred in defense of such claims.
- B. Where the services to be provided by **CONSULTANT** under this Agreement are design professional services to be performed by a design professional as that term is defined under Civil Code Section 2782.8, then, to the extent permitted by law including without limitation, Civil Code sections 2782, 2782.6 and 2782.8, **CONSULTANT** shall indemnify and hold harmless the **CITY** and its officers, officials, and employees (collectively **City Indemnitees**) from and against damages, liabilities or costs (including incidental damages. Court costs, reasonable attorney's fees as may be determined by the Court, litigation expenses and fees of expert witnesses incurred in connection therewith and costs of investigation) to the extent they are caused by the negligence, recklessness, or willful misconduct of **CONSULTANT**, or any subconsultants, or subcontractor or anyone directly or indirectly employed by them, or anyone for whom they are legally liable

(collectively Liabilities). Such obligation to hold harmless and indemnify any indemnity shall not apply to the extent that such Liabilities are caused in part by the negligence or willful misconduct of such City Indemnitee.

C. The defense and indemnification obligations of this Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this Agreement, and shall survive the termination or completion of this Agreement for the full period of time allowed by law.

12. NONDISCRIMINATION.

CONSULTANT shall not discriminate, in any way, against any person on the basis of age, sex, race, color, religion, ancestry, national origin or disability in connection with or related to the performance of its duties and obligations under this Agreement.

13. COMPLIANCE WITH ALL LAWS.

CONSULTANT shall observe and comply with all applicable federal, state and local laws, ordinances, codes and regulations, in the performance of its duties and obligations under this Agreement. CONSULTANT shall perform all services under this Agreement in accordance with these laws, ordinances, codes and regulations. CONSULTANT shall release, defend, indemnify and hold harmless CITY, its officers, agents and employees from any and all damages, liabilities, penalties, fines and all other consequences from any noncompliance or violation of any laws, ordinances, codes or regulations.

14. NO THIRD PARTY BENEFICIARIES.

CITY and **CONSULTANT** do not intend, by any provision of this Agreement, to create in any third party, any benefit or right owed by one party, under the terms and conditions of this Agreement, to the other party.

15. NOTICES.

All notices and other communications required or permitted to be given under this Agreement, including any notice of change of address, shall be in writing and given by personal delivery, or deposited with the United States Postal Service, postage prepaid, addressed to the parties intended to be notified. Notice shall be deemed given as of the date of personal delivery, or if mailed, upon the date of deposit with the United States Postal Service. Notice shall be given as follows:

TO CITY's Project Manager: Fabiola Guillen-Urfer

City of San Rafael 111 Morphew Street San Rafael, CA 94901

TO **CONSULTANT**'s Project Director: Timothy Rodriguez, Northern Regional

Manager

BSK Associates 399 Lindbergh Avenue Livermore, CA 94551

16. <u>INDEPENDENT CONTRACTOR</u>.

For the purposes, and for the duration, of this Agreement, CONSULTANT, its officers, agents and employees shall act in the capacity of an Independent Contractor, and not as employees of the CITY. CONSULTANT and CITY expressly intend and agree that the status of CONSULTANT, its officers, agents and employees be that of an Independent Contractor and not that of an employee of CITY.

17. ENTIRE AGREEMENT -- AMENDMENTS.

- A. The terms and conditions of this Agreement, all exhibits attached, and all documents expressly incorporated by reference, represent the entire Agreement of the parties with respect to the subject matter of this Agreement.
- B. This written Agreement shall supersede any and all prior agreements, oral or written, regarding the subject matter between the **CONSULTANT** and the **CITY**.
- C. No other agreement, promise or statement, written or oral, relating to the subject matter of this Agreement, shall be valid or binding, except by way of a written amendment to this Agreement.
- D. The terms and conditions of this Agreement shall not be altered or modified except by a written amendment to this Agreement signed by the **CONSULTANT** and the **CITY**.
- E. If any conflicts arise between the terms and conditions of this Agreement, and the terms and conditions of the attached exhibits or the documents expressly incorporated by reference, the terms and conditions of this Agreement shall control.

18. SET-OFF AGAINST DEBTS.

CONSULTANT agrees that **CITY** may deduct from any payment due to **CONSULTANT** under this Agreement, any monies which **CONSULTANT** owes **CITY** under any ordinance, agreement, contract or resolution for any unpaid taxes, fees, licenses, assessments, unpaid checks or other amounts.

19. WAIVERS.

The waiver by either party of any breach or violation of any term, covenant or condition of

this Agreement, or of any ordinance, law or regulation, shall not be deemed to be a waiver of any other term, covenant, condition, ordinance, law or regulation, or of any subsequent breach or violation of the same or other term, covenant, condition, ordinance, law or regulation. The subsequent acceptance by either party of any fee, performance, or other consideration which may become due or owing under this Agreement, shall not be deemed to be a waiver of any preceding breach or violation by the other party of any term, condition, covenant of this Agreement or any applicable law, ordinance or regulation.

20. COSTS AND ATTORNEY'S FEES.

The prevailing party in any action brought to enforce the terms and conditions of this Agreement, or arising out of the performance of this Agreement, may recover its reasonable costs (including claims administration) and attorney's fees expended in connection with such action.

21. CITY BUSINESS LICENSE / OTHER TAXES.

CONSULTANT shall obtain and maintain during the duration of this Agreement, a **CITY** business license as required by the San Rafael Municipal Code **CONSULTANT** shall pay any and all state and federal taxes and any other applicable taxes. **CITY** shall not be required to pay for any work performed under this Agreement, until **CONSULTANT** has provided **CITY** with a completed Internal Revenue Service Form W-9 (Request for Taxpayer Identification Number and Certification).

22. SURVIVAL OF TERMS.

Any terms of this Agreement that by their nature extend beyond the term (or termination) of this Agreement shall remain in effect until fulfilled and shall apply to both Parties' respective successors and assigns.

23. <u>APPLICABLE LAW</u>.

The laws of the State of California shall govern this Agreement.

24. <u>COUNTERPARTS AND ELECTRONIC SIGNATURE.</u>

This Agreement may be executed by electronic signature and in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one document. Counterpart signature pages may be delivered by telecopier, email or other means of electronic transmission.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day, month and year first above written.

CITY OF SAN RAFAEL

CONSULTANT

	By:
JIM SCHUTZ, City Manager	
	Name:
	Title:
ATTEST:	
ATTEST.	
	[If CONSULTANT is a corporation, add signature of second corporate officer]
LINDSAY LARA, City Clerk	
	By:
APPROVED AS TO FORM:	Name:
	Title:
DODEDT E EDCTEDI C'A-AM-	
ROBERT F. EPSTEIN, City Attorney	



December 9, 2021

BSK Proposal CL21-22265

A. Fabiola Guillen-Urfer
Sr. Project Manager
City of San Rafael, Department of Public Works
Fabiola.GuillenUrfer@cityofsanrafael.org

SUBJECT: Proposal for Materials Testing & Special Inspection Services

and Geotechnical Inspection Services

City of San Rafael Essential Facilities Projects, Fire Station 54 and Fire Station 55

San Rafael, California

Dear Ms. Guillen-Urfer:

As requested, BSK Associates (BSK) prepared this proposal to provide special inspections and materials testing services during construction of the planned Essential Facilities Fire Stations 54 & 55 located in San Rafael. The objective of our services will be to monitor and test conformance of the construction aspects of the project with regards to the project plans and specifications. We understand that Terracon Consultants, Inc. of Concord, California has prepared two geotechnical engineering reports,¹ and therefore are the Geotechnical Engineer-of-Record (GEOR) for the project. BSK will <u>not</u> be assuming the role of the GEOR and will only be providing materials testing and special inspections, and geotechnical testing and inspection services per your acceptance letter dated December 1, 2021. However, as requested, we have included an optional fee for BSK to take on the GEOR role and provide geotechnical observations and testing services during construction.

We have based our construction estimate on the approved project specific plans² prepared by LCA Architects of Walnut Creek, California, and our experience with similar projects. Note, that there is no project construction schedule available at this time. When a schedule does become available, BSK would like the opportunity to revisit our estimate and assumptions. The following sections present discussions regarding our understanding of the project, our proposed scope of services, fee estimate, and project limitations for your consideration.

BSK is committed to providing quality service to its clients, commensurate with their wants, needs and desired level of risk. If a portion of this proposal does not meet the project's needs or if those needs have

¹ Terracon Consultants, Inc, (2019), Geotechnical Engineering Report, Fire Station 54 Upgrade, San Rafael, Marin County, CA 94901, Project No. ND195033, dated September 11, 2019.

Terracon Consultants, Inc, (2019), Geotechnical Engineering Report, Fire Station 55 Upgrade, San Rafael, Marin County, CA 94901, Project No. ND195034, dated September 16, 2019

² LCA Architect (2021), City of San Rafael, Fire Stations 54 & 55, San Rafael, California, dated December 1, 2021.

BSK Proposal CL21-22265 December 9, 2021 Page 2

changed, BSK will consider appropriate modifications, subject to the standards of care to which we adhere as professionals. Modifications such as changes in scope, methodology, scheduling, and contract terms and conditions may result in changes to the risks assumed by the client and adjustments to our fees.

PROJECT UNDERSTANDING

We understand that BSK's role on the project will be to provide materials testing and special inspection, and geotechnical inspection services during the retrofit of two fire stations located in San Rafael. Fire station 54 will be expanded to be a 5,108 square feet (sf), two story fire station, that will include building and site improvements such as updating two apparatus bays, new medical storage, janitor facilities, living spaces such as kitchen, dining, dayroom, laundry, office, gym, sleeping quarters, restrooms, mechanical, electrical, communication rooms, a new elevator, and emergency generator. Fire station 55 will be expanded to be a 4,869 sf, single story fire station that will include building and site improvements such as updating two apparatus bays, new medical storage, janitor facilities, living spaces such as kitchen, dining, dayroom, laundry, office, gym, sleeping quarters, restrooms, mechanical, electrical, communication rooms, a new elevator, emergency generator, and a fueling station. BSK has the expertise and is willing to take on the role of Geotechnical Engineer-of-Record (GEOR) for the project if needed.

If the actual project description differs significantly from that described above, we should be notified so that we can review our scope of services for applicability.

SCOPE OF SERVICES AND FEE ARRANGEMENTS

Our anticipated scope of services and fee estimate listed below are based on part-time observation and testing services during construction as noted below. We will provide our services on a time and materials, and on-call basis in accordance with our Basis of Charges and fee schedule included with this proposal. We will require 24-hour notice for scheduling our observation and testing visits. Note that for on-call services, we rely on the Client or its representatives (i.e., inspector or record (IOR), construction manager, contractor. etc.) to schedule visits. Inspections can be scheduled our via livermoredispatch@bskassociates.com and cc BSK's project manager.

We have assumed that the site visits by our representatives will be approximately 4 to 8 hours long (including travel) and will be carried out during weekdays only. A minimum charge of 4 hours will apply to each site visit, except for show-up (no work performed) and sample pickup visits, as discussed in the Basis of Charges below. If the site visits are longer than 8 hours and/or weekend/holiday work becomes necessary due to the contractor's schedule, overtime rates will apply as noted in the Basis of Charges. Our anticipated scope of services and estimated fee breakdown, including assumed field hours, are presented below.



Fire Station 54

FIELD SERVICES	DAYS	HRS/DAY	HOURS	RATE	EXTENSION
Earthwork Construction					
Footing Observation	4	6	24	\$135.00	\$3,240.00
Compaction Testing Technician	10	8	80	\$135.00	\$10,800.00
Nuclear Gauge Equipment Fee	10			\$64.00	\$640.00
Concrete Construction					
Reinforcing Steel Placement Observation	12	6	72	\$149.00	\$10,728.00
Concrete Placement Observation & Sampling (Half Day)	6	6	36	\$149.00	\$5,364.00
Concrete Placement Observation & Sampling (Full Day)	6	8	48	\$149.00	\$7,152.00
Sample Pickup and Delivery	12	2	24	\$108.00	\$2,592.00
Shear/Diaphragm Nailing Observation					
Shear/Diaphragm Nailing ≤ 4" O.C.	3	6	18	\$149.00	\$2,682.00
Post Installed Anchors/Dowels					
Placement Observation	4	6	24	\$118.00	\$2,832.00
Torque Testing/Proofload Testing	4	6	24	\$118.00	\$2,832.00
Equipment Fee	4			\$64.00	\$256.00
Welding Observations					
Shop Welding / Material Identification (Non-PW)	8	8	64	\$130.00	\$8,320.00
Field Welding / High-Strength Bolting	6	8	48	\$149.00	\$7,152.00
Mobilization / Travel					
Trip Charge (Mileage, Bridge Toll)	75			\$100.00	\$7,500.00
		F	IELD SERVICE	S ESTIMATE	\$72,090.00

LABORATORY TESTING	FREQUENCY	SETS/UNITS	RATE	EXTENSION	
Laboratory Testing					
Concrete Compressive Strength Test (Set of 4)	1 Set / 100 CY	18	\$155.00	\$2,790.00	
Non-Shrink Grout Compressive Strength Tests (Set of 3)	1 set / day	2	\$137.00	\$274.00	
Compaction Curves - Base Rock (6" Mold)	1 per material	2	\$286.00	\$572.00	
Compaction Curves - Site Soils (4" Mold)	1 per material	1	\$269.00	\$269.00	
	LABORA	TORY TESTIN	G ESTIMATE	\$3,905.00	

BSK SERVICES ADMINISTRATION		HOURS	RATE	EXTENSION
Registered Engineer (Review, support and reporting)		12	\$230.00	\$2,760.00
Project Manager (Field Oversight, Daily Report Review)		12	\$230.00	\$2,760.00
Administration (Data Processing, Report Prep., Field Coordination)		12	\$90.00	\$1,080.00
Certified Payroll / DIR Upload	Monthly	4	\$300.00	\$1,200.00
Reports				
Final Affidavit	1 Per Permit	1	\$375.00	\$375.00
	ADN	/INISTRATIO	N ESTIMATE	\$8,175.00
	Т	OTAL BUDGE	ET ESTIMATE	\$84,170.00

20% CONTINGENCY - \$16,834.00





Fire Station 55

FIELD SERVICES	DAYS	HRS/DAY	HOURS	RATE	EXTENSION
Earthwork Construction					
Pier Drilling Observation	4	8	32	\$135.00	\$4,320.00
Compaction Testing Technician	5	6	30	\$135.00	\$4,050.00
Compaction Testing Technician - HMA	1	8	8	\$135.00	\$1,080.00
Nuclear Gauge Equipment Fee	6			\$64.00	\$384.00
Concrete Construction					
Reinforcing Steel Placement Observation	10	6	60	\$149.00	\$8,940.00
Concrete Placement Observation & Sampling (Half Day)	6	6	36	\$149.00	\$5,364.00
Concrete Placement Observation & Sampling (Full Day)	4	8	32	\$149.00	\$4,768.00
Sample Pickup and Delivery	10	2	20	\$108.00	\$2,160.00
Shear/Diaphragm Nailing Observation					
Shear/Diaphragm Nailing ≤ 4" O.C.	3	6	18	\$149.00	\$2,682.00
Post Installed Anchors/Dowels					
Placement Observation	6	6	36	\$118.00	\$4,248.00
Torque Testing/Proofload Testing	6	6	36	\$118.00	\$4,248.00
Equipment Fee				\$64.00	\$384.00
Mobilization / Travel					
Trip Charge (Mileage, Bridge Toll)	55			\$100.00	\$5,500.00
		F	IELD SERVICE	S ESTIMATE	\$48,128.00

LABORATORY TESTING	FREQUENCY	FREQUENCY SETS/UNITS RATE		EXTENSION	
Laboratory Testing					
Concrete Compressive Strength Test (Set of 4)	1 Set / 100 CY	10	\$155.00	\$1,550.00	
AC Max Density Rice Method	1 per material	1	\$286.00	\$286.00	
Compaction Curves - Base Rock (6" Mold)	1 per material	1	\$286.00	\$286.00	
Compaction Curves - Site Soils (4" Mold)	1 per material	1	\$269.00	\$269.00	
	LABORA	TORY TESTIN	G ESTIMATE	\$2,391.00	

BSK SERVICES ADMINISTRATION		HOURS	RATE	EXTENSION
Registered Engineer (Review, support and reporting)		6	\$230.00	\$1,380.00
Project Manager (Field Oversight, Daily Report Review)		8	\$230.00	\$1,840.00
Administration (Data Processing, Report Prep., Field Coordination)		6	\$90.00	\$540.00
Certified Payroll / DIR Upload	Monthly	4	\$300.00	\$1,200.00
Reports				
Final Affidavit	1 Per Permit	1	\$375.00	\$375.00
	ADN	/INISTRATIO	N ESTIMATE	\$5,335.00
	T	OTAL BUDGE	ET ESTIMATE	\$55,854.00

20% CONTINGENCY - \$11,170.80 TOTAL INSPECTION AND TESTING ESTIMATE - \$67,024.80



The following optional fee estimate is for BSK to take on the GEOR role.

GEOR Services - Alternative

GEOTECHNICAL ENGINEER OF RECORD (GEOR) SERVICES - ALTERNATIVE	DAYS	HRS/DAY	HOURS	RATE	EXTENSION
Geotechnical review of the plans and specifications Principal Engineer- Geotechnical Engineer			12	\$260.00	\$3,120.00
Geotechnical Consultation, RFI Reviews, Report Reviews, Etc. Principal Engineer- Geotechnical Engineer			10	\$260.00	\$2,600.00
		T	OTAL BUDGI	ET ESTIMATE	\$5,720.00

TOTAL GEOR SERVICES ESTIMATE (ALTERNATIVE)

\$5,720.00

Our fee estimate applies to services commenced within 90 days of this proposal. After that time, we should review our proposal for applicability. The fees for our services will be charged on a time and materials basis in accordance with our attached fee schedule. Laboratory tests and engineering time would be per the fee schedule and billed for the number of tests accomplished and the number of hours provided. Any services required in addition to those listed above would be in accordance with our attached fee schedule. We have assumed that there is no Project Labor Agreement in-place for this project. We have also assumed that California Prevailing Wages do apply to this project and have adjusted our hourly rates accordingly.

For the <u>basic scope of services outlined above</u>, we anticipate an estimated total not-to-exceed time and materials fee of approximately \$84,170 for Fire Station 54, and \$55,854 for Fire Station 55. For the <u>optional scope of services outlined above</u>, we anticipate an estimated total fee of approximately \$5,720. Note that if selected, the optional scope of services is additive to the basic scope of services. Should the construction schedule or your requested site visits require a lesser or greater amount of service than that estimated herein, our fees would vary accordingly. Our fee estimate does not include a contingency for retesting or re-inspection of failing tests or unsatisfactory work by the contractor. The actual charges for our services will depend largely on the contractor's actual schedule and progress, as well as possible impacts of weather, work stoppages, and quality of material used, all of which are beyond our control. Proficient contractor performance reduces the number of test and inspection visits required, consequently resulting in lower total fees. We are not in control of such events, nor how and when construction activities are completed, and as a result, we can only approximate our estimates for your use. To account for such uncertainties, we suggest that a contingency budget of at least 20 percent of the above estimated fee for construction be set aside for our services as outlined above in our estimates.

It is our practice to notify you if it appears our fees will exceed our estimate, but due to the timing and nature of our services and to make sure that your project is not delayed, this may not always be possible. Our invoices will serve as an update of our progress as well as fees charged versus our estimate. Invoices are payable upon receipt and deemed delinquent if not paid within 60 days. Delinquent invoices may be subject to interest/service charges, and collection expenses including attorney's fees, at our election.



AUTHORIZATION

If you agree with our proposed services described above, please send us a Professional Services Agreement for the services outlined above. As indicated previously, BSK has review the City's sample Professional Services Agreement (PSA) and takes no exceptions to the language in the agreement.

Acceptance of this proposal will indicate that the Client has reviewed the scope of services and determined that they do not need or want more services than are being proposed at this time. If there is a need for any change in the scope of services or schedule described in the proposal, please call us immediately. Changes may require revision of the above fee estimate.

This proposal presents our understanding of your current needs for construction observation and testing services during construction of this project. BSK is committed to providing quality service to its clients, commensurate with their wants and needs. If a portion of this proposal does not meet your needs, or if those needs have changed, BSK is prepared to consider appropriate modifications, subject to the standards of care to which we adhere as professionals. Modifications such as changes in scope, methodology, scheduling, and contract terms and conditions may result in changes to the risks assumed by the Client as well as adjustments to our fees.

LIMITATIONS

BSK will perform its services consistent with that level of care and skill ordinarily exercised by other consultants practicing in the same discipline and locale at the time the services are performed. No other warranties, either express or implied are provided. Unless the City selects the optional services presented above, BSK will not take over the role of GEOR for this project.

It should be recognized that construction monitoring is a technique employed to reduce the risk of problems arising during construction. Provision of construction monitoring by an engineer is not insurance, nor does it constitute a warranty or guarantee of any type. Even with diligent construction monitoring, some construction defects may be missed. In all cases, the contractor shall retain responsibility for the quality of the work and for adhering to plans and specifications and for repairing defects regardless of when they are found. We do not undertake the guarantee of construction nor production of a completed project conforming to the project plans and specifications.



CLOSURE

We appreciate the opportunity to submit this proposal for your consideration and we look forward to working with you on this project. If you have questions concerning this proposal or require additional information or services, please contact the undersigned at (925) 315-3151.

Respectfully submitted,

BSK Associates

Michael Kibbey

Assistant Project Manager

Tim**ʻ**Rodriguez

Northern Regional Manager

Enclosures: Basis of Charges

BSK 2021-2022 Fee Schedule





BASIS OF CHARGES Special Inspections and Materials Testing Services San Rafael Fire Stations 54 and 55 San Rafael, California

The charge schedule listed below will be our basis for invoicing.

Show-up (No site work performed) and sample pickup Work up to 4 Hrs.
Work from 4 to 6 Hrs.
Work from 6 to 8 Hrs.
Work from 8 to 12 Hrs. and Saturdays
Work Over 12 Hrs., Sundays and Holidays
Travel (Portal-to-Portal)

Bill 2 Hours
Bill 4 Hours
Bill 6 Hours
Bill 8 Hours
Time and One Half
Double Time

Hourly



BSK Associates - September 1, 2021 to June 30, 2022 Schedule of Fees (North Determination)

PROFESSIONAL STAFF	PERSONNI	TECHNICAL STAFF (North Prevailing Wage)	
Principal	\$ 260.00	Group 1 - Special Inspector	\$ 155.00
Senior Professional	\$ 230.00	Group 2 - Special Inspector	\$ 149.00
Project Professional II	\$ 215.00	Group 3 - Engineering Technician	\$ 135.00
•	\$ 180.00		\$ 118.00
Project Professional I	·	Group 4 - Technician	•
Staff Professional II	\$ 160.00	Ground Penetrating Radar Scanning Technician	\$ 300.00
Staff Professional I	\$ 145.00	Core Drilling Technician	\$ 220.00
Seismic GIS	\$ 200.00	Floor Flatness Testing Technician	\$ 200.00
GIS Specialist	\$ 145.00	Courier	\$ 108.00
Information Specialist II	\$ 160.00	Laboratory Technician	\$ 120.00
Information Specialist I	\$ 145.00	Administrative Assistant / Clerical	\$ 90.00
CAD	\$ 105.00	Litigation support	1.5x standard rate
Project Administrator	\$ 100.00		
,	·	BASIS OF CHARGES FOR FIELD TECHNICIAN SERVICES	
REIMBURSABLES		Field Work from 0 to 4 hours	Bill 4 hours
Mileage (Portal to Portal)	\$ 0.88	Field Work from 4 to 8 hours	Bill 8 hours
	·		
Per Diem (as required)	\$ 200.00	Field Work over 8 hours / Saturdays	Bill time and a half
Bridge Toll	Cost + 15%	Sundays, holidays and over 12 hours	Bill double time
Parking Fees	Cost + 15%	Second/Special/Multi-Shift	Base Rate x 12.5%
Subconsultant Services	Cost + 15%	Show-up time (no work performed)	Bill 2 hours
Project Administration Fees	7% of Invoice	Sampling or cylinder pickup, minimum charge	Bill 2 hours
DIR Administration Fees	3% of Invoice		
Project Setup (Project)	\$500.00	EQUIPMENT	
rroject setup (rroject)	\$300.00		Ć (4.00
ANALYSIS COFTWARE USA OF ESS		Nuclear Gauge (Day)	\$ 64.00
ANALYSIS SOFTWARE USAGE FEES		Ultrasonic Weld Equipment (Day)	\$ 64.00
gINT (Project)	\$ 59.00	Torque Wrench (Day)	\$ 64.00
LPile (Project)	\$ 59.00	Proof Load Equipment (Day)	\$ 64.00
APile (Project)	\$ 59.00	Rebar Locator / Pachometer	\$ 116.00
SHAFT (Project)	\$ 59.00	Hand Auger (Day)	\$ 232.00
GROUP (Project)	\$ 115.00	Water Meter (Day)	\$ 59.00
Cliq (Project)	\$ 59.00	Drilling Kit - Paint, stakes and lath - (Project)	\$ 30.00
LiquefyPro (Project)	\$ 59.00	Drilling Supplies - Reuse of tubes/caps (Project)	\$ 290.00
	·		•
LiqIT (Project)	\$ 50.00	Manometer (Day)	\$ 224.00
NovoLIQ (Project)	\$ 59.00	Double Ring Infiltrometer (Day)	\$ 579.00
Slide (Project)	\$ 115.00		
Settle3D (Project)	\$ 115.00	DIR/PREVAILING WAGE ADMINISTRATION FEES (MONTHLY)	
ArcGIS (Project)	\$ 59.00	Certified Payroll / DIR Upload	\$ 300.00
EZ-FRISK (Per Project Site / Site Class)	\$ 550.00	Non-Performance Certified Payroll / DIR Upload	\$ 100.00
		Subcontractor Management / Compliance Forms	\$ 100.00
		Additional LCP Tracker or Other Compliance Software	\$ 200.00
		•	
		Additional Special Forms, as required	\$ 150.00
		Additional Special Forms, as required	\$ 150.00
	MATERIALS LABO		\$ 150.00
SOILS	MATERIALS LABO		\$ 150.00
SOILS Moisture Density Curves	MATERIALS LABO	DRATORY TESTS	\$ 150.00
Moisture Density Curves	_	California Bearing Ratio (CBR)	
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO)	\$ 269.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180)	\$ 585.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO)	\$ 269.00 \$ 269.00	California Bearing Ratio (CBR)	
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557)	\$ 269.00 \$ 269.00 \$ 286.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180)	\$ 585.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests	\$ 585.00 \$ 1,133.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557)	\$ 269.00 \$ 269.00 \$ 286.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180)	\$ 585.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests	\$ 585.00 \$ 1,133.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434)	\$ 585.00 \$ 1,133.00 \$ 322.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D4221) Double Hydrometer (ASTM D4221)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 715.00 \$ 679.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 715.00 \$ 679.00 \$ 859.00 \$ 275.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 57.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 715.00 \$ 679.00 \$ 859.00 \$ 275.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 57.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 715.00 \$ 679.00 \$ 859.00 \$ 275.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Soils (CT 301)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 233.00 \$ 49.00 \$ 245.00 \$ 250.00 \$ 357.00 \$ 144.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM/D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Soils (CT 301)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Soils (CT 301)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 233.00 \$ 49.00 \$ 245.00 \$ 250.00 \$ 357.00 \$ 144.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D4221) Specific Gravity of Soil (ASTM D4221) Specific Gravity of Soil (ASTM D2421) Specific Gravity of Soil (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Treated Materials (CT 301))	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 250.00 \$ 233.00 \$ 49.00 \$ 245.00 \$ 250.00 \$ 357.00 \$ 144.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166) Shear Tests Direct Shear, Undisturbed (ASTM D3080) Direct Shear, Remolded (ASTM D3080)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D4221) Specific Gravity of Soil (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Treated Materials (CT 301)) Consolidation Tests	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 233.00 \$ 49.00 \$ 245.00 \$ 250.00 \$ 357.00 \$ 144.00 \$ 156.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166) Shear Tests Direct Shear, Undisturbed (ASTM D3080)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D422) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Test Tube Density Test Tube Density Test Tube Density Test Consolidation Tests Consolidation Tests Consolidation (ASTM D2435)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 233.00 \$ 49.00 \$ 49.00 \$ 245.00 \$ 183.00 \$ 183.0	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166) Shear Tests Direct Shear, Undisturbed (ASTM D3080) Direct Shear, Remolded (ASTM D3080)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Soils (CT 301) R-Value of Treated Materials (CT 301)) Consolidation Tests Consolidation (ASTM D2435) Consolidation, Extra Points (ASTM D2435)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 233.00 \$ 49.00 \$ 49.00 \$ 250.00 \$ 250.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166) Shear Tests Direct Shear, Undisturbed (ASTM D3080) Direct Shear, Remolded (ASTM D3080)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D422) Double Hydrometer (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Treated Materials (CT 301)) Consolidation Tests Consolidation (ASTM D2435) Consolidation , Extra Points (ASTM D2435) Collapse Potential of Soils (ASTM D2435)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 233.00 \$ 49.00 \$ 233.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166) Shear Tests Direct Shear, Undisturbed (ASTM D3080) Direct Shear, Remolded (ASTM D3080)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00
Moisture Density Curves Standard Proctor, 4" (ASTM/AASHTO) Modified Proctor, 4" Mold (ASTM/AASHTO) Modified Proctor, 6" mold (ASTM D1557) Caltrans Maximum Wet Density (CT 216) Check Point Particle Size Analysis Sieve Analysis w/ Wash (ASTM D422) Minus #200 Wash, Soil (ASTM D1140) Hydrometer Analysis (ASTM D4221) Specific Gravity of Soil (ASTM D854) Visual Classification (ASTM D2488) Sand Equivalent (ASTM D2419) % Organics in Soil (ASTM D2974) Atterberg Limits / Swell Tests Plasticity Index (ASTM D4318) Shrinkage Limits of Soils (ASTM D427) Moisture Density Test Tube Density Moisture Content of Soils (ASTM D2216) "R" Value Determination R-Value of Soils (CT 301) R-Value of Treated Materials (CT 301)) Consolidation Tests Consolidation (ASTM D2435) Consolidation, Extra Points (ASTM D2435)	\$ 269.00 \$ 269.00 \$ 286.00 \$ 245.00 \$ 155.00 \$ 195.00 \$ 95.00 \$ 256.00 \$ 357.00 \$ 183.00 \$ 49.00 \$ 144.00 \$ 156.00 \$ 233.00 \$ 49.00 \$ 49.00 \$ 250.00 \$ 250.00	California Bearing Ratio (CBR) CBR at 100% (ASTM D1883 or AASHTO T-180) CBR at 95% (ASTM D1883 or AASHTO T-180) Permeability Tests Rigid Wall Permeability (ASTM D2434) Flexible Wall Permeability (ASTM D5084) Remolded Flexwall Perm (ASTM D5084) Soil Corrosivity Tests Minimum Resistivity of Soils (CT 643) pH Soluble Sulfate, Chloride and Sulfide Soil Cement Tests Freeze Thaw Abrasion (ASTM D560) Wetting-Drying Abrasion (ASTM D559) Preparation of Freeze-Thaw or Wetting-Drying Tests Soil Cement Compression (ASTM D1633) Other Sand Density Calibration (ASTM D1566) Unconfined Compression Unconfined Compression (ASTM D2166) Shear Tests Direct Shear, Undisturbed (ASTM D3080) Direct Shear, Remolded (ASTM D3080)	\$ 585.00 \$ 1,133.00 \$ 322.00 \$ 502.00 \$ 638.00 \$ 161.00 \$ 75.00 \$ 149.00 \$ 679.00 \$ 859.00 \$ 275.00 \$ 107.00 \$ 144.00



BSK Associates - September 1, 2021 to June 30, 2022 Schedule of Fees (North Determination)

	MA	TERIAIS I ARO	PRATORY TESTS		
AGGREGATES	1017-	TENIALS EADS	CONCRETE		
Sieve Analysis Coarse or Fine (ASTM C136)	\$	95.00	Cement Content Concrete (ASTM C1084)	\$	431.00
Sieve Analysis w/ Fineness Modulus	\$	102.00	Chemical Test (ASTM C150)		QUOTE
Minus 200 Wash, Aggregates (ASTM C117)	\$	95.00	Set Times Cement-Vicat Needle (ASTM C191)	\$	357.00
Specific Gravity/Absorption (ASTM C127)	\$	183.00	Specific Gravity of Hydraulic Cement (ASTM C191)	\$	172.00
Specific Gravity/Absorption (ASTM C128)	\$	183.00	Lineal Shrinkage Set of 3 (ASTM C157)	\$	454.00
Organic Impurities (ASTM C40)	\$	95.00	Compression Test of Concrete - 1 (ASTM C39)	\$	39.00
% Lumps/Friable Particles (ASTM C142)	\$ ¢	92.00	Compression Test of Concrete - 4 (ASTM C39)	\$ *	155.00
% Flat and Elongated (ASTM D4791) Fine Aggregate Angularity (AASHTO 304)	ş ¢	144.00 92.00	Compression Test of Core (ASTM C42) Preparation of Specimens, Sawing	\$ ¢	69.00 78.00
Moisture Content (ASTM D2216)	۶ \$	49.00	Compressive Strength of Shotcrete Panel	٠ \$	364.00
Aggregate Wt., pcf Compacted (ASTM C29)	\$	101.00	Proportion of Cement in Concrete (ASTM C85)	\$	399.00
Aggregate Wt., pcf Loose (ASTM C29)	\$	75.00	Flexural Test Per Beam (ASTM C78)	\$	102.00
Abrasion by LA Rattler, Small Size (ASTM C131)	, \$	269.00	Splitting Tensile Strength of Concrete (ASTM C496)	, \$	102.00
Abrasion by LA Rattler, Large Size (ASTM C131)	\$	327.00	Unit Weight Lt Wt Concrete (ASTM C567)	\$	64.00
Sodium Sulfate Soundness, Per Sieve (ASTM C88)	\$	125.00	"AZ" Test-Reinforced Concrete Pipe "Life Factor"	\$	89.00
Sodium Sulfate Soundness, Min. Charge (ASTM C88)	\$	399.00	9 Pt Core Measurements, Each (ASTM C174)	\$	39.00
Sand Equivalent (ASTM D2419 OR CT 217-I)	\$	144.00	Concrete Trial Batches		QUOTE
Durability Index (CT 229)	\$	286.00	Unit Weight & Abs Concrete (ASTM D642)	\$	144.00
Potential Reactivity of Aggregates		QUOTE	Accelerated Curing of Concrete (ASTM C684)	\$	286.00
Cleanness Value of Aggregate (CT 227)	\$	206.00	Cylinder Molds (each)	\$	8.00
Hydrometer (ASTM D422 OR CT 205-E)	\$ ¢	256.00	Storage of Concrete Cylinders for more than 45 Days	\$ ¢	66.00
% Crushed particles (CT 205)	\$ ¢	189.00 250.00	RH Probe Calcium Chloride Kit	\$ ¢	66.00 44.00
Lightweight Pieces (ASTM 123)	\$	250.00	Mixing Water (pH, elec. conductance, chloride, sulfate)	Ş ¢	113.00
			Contact Soil (pH, elec. conductance, chloride, sulfate)	ې خ	136.00
HOT MIX ASPHALT			contact son (pri, cice. confactance, emoriae, sunate)	Y	130.00
JMF Mix Design, HVEEM	\$	3,542.00	MASONRY		
JMF Mix Design, Marshall	\$	4,197.00	Concrete Masonry Units Testing (ASTM C90)		
JMF Mix Design, Superpave / Caltrans	\$	10,226.00	Compression Test Pavers, Single	\$	88.00
JMF Verification - HMA - Superpave / Caltrans	\$	5,926.00	Compression Test Composit CMU Prism	\$	189.00
JMF Production Startup - Superpave / Caltrans	\$	5,513.00	Specific Gravity and Unit Weight	\$	131.00
RAP Material Testing - Additional Fee	\$	717.00	Moisture Content	\$	61.00
Rubberized RHMA Material - Additional Fee	\$	1,654.00	Compression Test, Masonry Units (ASTM C140)	\$	119.00
Hamburg Wheel Track (AASHTO T324)	\$ \$	3,005.00	Absorption / Moisture Content (ASTM C140)	\$ \$	119.00
Gyratory Compaction (AASHTO T312)	\$ ¢	382.00	Linear Shrinkage (ASTM C426)	\$ ¢	460.00
AC Content by Centrifuge (ASTM D2172) AC Content-Ignition (ASTM D6307 / CT382 / AASHTO T308)	\$ ¢	328.00 256.00	Masonry Core Shear Test (Title 24)	\$ ¢	214.00 214.00
Superpave Ignition Oven Correction (AASHTO T308)	ş ¢	595.00	Masonry Core Compression/Shear Test (Title 24) Compression Test Brick, Each (ASTM C67)	ş ¢	85.00
Moisture Content of Asphalt (CT 370)	۶ \$	75.00	Absorption/ Unit Wt. of Brick (ASTM C67)	٠ \$	89.00
Gradation/Extraction Aggregate (ASTM D5444)	\$	155.00	Compression Test Grout (Set of 3 or 4)	\$	137.00
Film Stripping	\$	102.00	Compression Test Mortar (Set of 3 or 4)	\$	125.00
Compaction/Preparation of HMA Briquette (CT 304)	\$	250.00	, , ,	•	
Stabilometer Value (CT 366 / AASHTO T246)	\$	201.00	WELDING AND STRUCTURAL STEEL		
AC Core Specific Gravity (ASTM D2726)	\$	64.00	Welder Qualification Testing		
AC Core Specific Gravity - Paraffin Coated (AASHTO T275)	\$	167.00	Welder / Procedure Welder Qualification Testing		QUOTE
AC Max Density Rice Method (ASTM D2041)	\$	286.00	Face Bend of Steel	\$	69.00
CIR/FDR Compressive Strength Testing (pre-compacted	\$	275.00	Root Bend of Weld Coupon	\$	69.00
specimen, includes conditioning) – CTM 371			Side Bend of Weld Coupon	\$	69.00
Tensile Strength Ratio (AASHTO T283)	\$	1,253.00	Tensile Test of Steel Coupon	\$	95.00
Moisture Vapor Susceptibility (CT 307)	\$	233.00	Bend Test of Steel Coupon	\$	82.00
AC Surface Abrasion (CT 360)	\$ ^	572.00 512.00	Machining Charges (Per Coupon)	*	QUOTE
Index Retained Strength (ASTM D1074-D1075) AC Hveem Maximum Density (CT 375)	\$ ¢	512.00	Brinell Hardness of Steel (ASTM E19)	\$ ¢	113.00 113.00
Marshall Stability and Flow (ASTM D6927)	ş ¢	512.00 286.00	Rockwell Hardness of Steel (ASTM E18) Bolt Ultimate Load	ş ¢	151.00
Calculated AC Maximum Density (CT 367)	ب خ	113.00	Bolt Hardness (set of 3)	ب خ	113.00
Marshall Maximum Density, 50 Blows (ASTM D6926)	\$	333.00	Nut Hardness (set of 3)	\$	113.00
Examination of AC Cores	\$	39.00	Washer Hardness (set of 3)	\$	113.00
Thickness Determination of AC Cores	\$	25.00	Proof Loading, bolt or nut	\$	161.00
AC Tensile-Strength Premixed ASTM D4867	\$	740.00	C.	•	
AC Tensile-Strength Lab Mixed ASTM D4867	\$	1,253.00			
REINFORCING STEEL	-		FIREPROOFING		
Tensile & Bend of Rebar, #3 - #8	\$	169.00	Cohesion/Adhesion Fireproofing Materials	\$	144.00
Tensile & Bend of Rebar, #9 - #11	\$	169.00	Dry Density Fireproofing (ASTM E605)	\$	108.00
Bend Test of Rebar Slip and Topsila Pohar Couplers (CT 670)	Ş	69.00			
Slip and Tensile Rebar Couplers (CT 670) Tension Test of Welded Wire Fabric	\$	246.00 QUOTE			
Bend Test of Welded Wire Fabric		QUOTE			
Weld Shear Test, Welded Wire Fabric		QUOTE			
PT Cable Tensile and Elongation (ASTM A416 or A421)	\$	310.00			
PT Cable Preparation	Ψ	QUOTE			

Escalation: The prices noted above are subject to an increase of 3-5% annual, effective January 1 of each year following the initiation of a services agreement.

