

Newport-Mesa Unified School District  
Statement of Qualifications for  
Special Project Inspection Services  
RFQ#111-21



Culver City USD, Frost Auditorium  
completed 2018



**TWINING**  
**CONSULTING**

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18011 Sky Park Circle, Suite J  
Irvine CA 92614

Tel 949.553.0370  
Fax 949.553.0371

May 19, 2021  
Proposal No. 21-0850

Jonathan Geiszler  
Director of Purchasing & Warehouse  
Newport-Mesa Unified School District  
2985 Bear Street, Building A  
Costa Mesa, California 92626

**RE: Qualifications for Special Project Inspection Services RFQ#111-21**

Dear Mr. Geiszler:

Twining Consulting, Inc. (Twining) is pleased to submit our statement of qualifications for the Newport-Mesa Unified School District (District). We take pride in our reputation for quality, reliability, and expertise in providing geotechnical engineering, material testing, and special inspection services and are eager for the opportunity to continue our recent working relationship with the District. We are confident that the following qualifications will meet the with District's approval.

- » **Proactive Communicators:** Twining has been working on K-12 projects continually since the firm was established. One of the many things we have learned over that time is the vital need to be good stewards of school district funds. A vital element of this is having clear communication with District staff. We place a high-priority on ensuring accurate time keeping, time logs, check-in, time in, and time out of our inspectors. Also to avoid overbilling without justification, Twining issues an invoice every month that clearly shows the previously billed amount, budget amount, and total billed to date. Keeping the District's team "in the loop" is our priority.
- » **The Right Project Management Approach:** Twining delivers our services utilizing a proven project management approach, providing clients with a single point of contact for the entire scope of the project. This project management approach supports our efforts to work closely with the entire design and construction team including the client, structural engineer, construction manager, and general contractor. Our clients benefit from quick access to decision makers, as well as from long-lasting business and industry relationships. Additionally, as part of an innovative project management system, Twining utilizes QESTLab™ laboratory management software to help streamline the management of materials testing programs. QESTLab has robust reporting capabilities with easy to read report formats. QESTLab also has the ability to electronically publish the reports to remotely accessible server-system, ConstructionHive™. The DSABox serves a similar function, but many of our K-12 and community college partners prefer the added functionality of ConstructionHive. Per the District request, Twining's proposed project manager, Ahmed Tohmeh, will publish our inspector's daily field reports and laboratory testing results via both DSABox and ConstructionHive within 24 hours of competition.
- » **DSA On-Call Experts:** Twining is currently serving on a number of geotechnical and materials testing on-call contracts in some of Orange County's largest K-12 public school districts, including Irvine USD, Anaheim UHSD, Santa Ana USD, and Capistrano USD. Our firm is also a trusted consultant on many Orange County community college campus. In the past decade, Twining has provide geotechnical engineering and material testing services on DSA projects at Golden West, Santa Ana, Fullerton, Cypress, Orange Coast, and Saddleback College Community Colleges.

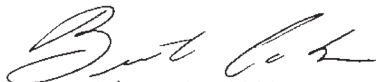
We agree that Twining's attached schedule of fees is a firm and irrevocable offer and valid for acceptance by the District for the period sixty (60) days after closing.

We would like to thank you for selecting our firm in the past, as well as for the current opportunity to serve your students, staff, and community with facilities that are safe and stand the test of time. Our focus on proactive communication, project management approach, and DSA experience will make us a valuable member of your on-call consultant team. Should you have any questions related to this proposal, please contact Steve Schiffer, Principal, by phone at 562.513.1704 or by email at [sschiffer@twininginc.com](mailto:sschiffer@twininginc.com).

Twining has reviewed and acknowledges all addendum (Q & A # 1) to this request for qualification.

Sincerely,

***Twining Consulting***



Benito Caban, RCE 73220

Chief Operating Officer

*Authorized to negotiate on behalf of firm*



Paul Soltis, RCE 56140, GE 2606

Project Manager / Lead Geotechnical Engineer



# SECTION 1

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## Business Profile



**NEWPORT MESA UNIFIED SCHOOL DISTRICT  
SPECIAL INSPECTION SERVICES  
RFQ EVALUATION**

**Evaluation of Firms:** All responses will be scored using this evaluation sheet. A minimum score of 80% is required to qualify for the 2nd round of evaluation which includes review by a panel. Up to 10 additional points may be awarded in the second round based on subjective determination of the Firm's ability to carry out the required work. NMUSD will select the top-rated firms to be awarded the contracts for these services.

**Instructions:** Fill-in a response for each question in Sections 1-4 below. Each correlates to a required element in the RFQ Response Format.

**Firm:** Twining Consulting, Inc.

1. Location/Accessibility	Write in:	Max.
a. Firm's location - Write in city and county of headquarters or local office, whichever is closest to the District	Our firm is headquartered in Irvine, California in Orange County	5
2. Past Performance	Write in:	Max. Pts.
a. Identify the Firm's number of years' experience in providing services for K-12	23 years	5
b. Project listing - Identify the number of K-12 projects the Firm has worked on within last 3 years.	86 K-12 projects	5
c. Project listing - Identify the number of Theater projects the Firm has worked on within last 5 years.	Twining has worked on 16 theater/stage projects in the last five years, roughly half were DSA projects.	5
d. Industry experience - Circle the type of projects the Project Team has worked on within the last 3 years (circle all that apply)	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">K-12</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">Community College</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">Charter/Private School</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">Non-School District</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">Other Project Types</div> </div>	5
e. Identify the Firm's number of employees	26 employees, 150 independently contracted inspectors	5
3. Claims, Lawsuits, Arbitrations	Write in:	Max. Pts.
a. Identify the number allegations against the firm or any employee for any violations of law	0	5
b. Identify the number of settlements or judgments involving such actions within the last five (5) years	0	5
4. Record of Past Performance	Write in:	Max. Pts.
a. Identify the number of client references from a K-12 school district included in the Response (0-3)	3	5

*I hereby certify that the above information is true and correct to the best of my knowledge.  
By signing below, I further acknowledge that should any of the information I provide be found to be false,  
the Firm's Response shall be considered nonresponsive and ineligible for consideration.*

Benito Caban, PE  
Printed Name

  
Signature

May 19, 2021  
Date



Twining's legacy dates back more than 120 years. What started as a family business in 1898 has evolved into one of Southern California most respected service providers of geotechnical, materials testing, and construction inspection services. Highly regarded by state and local agencies, developers, contractors, consultants, and industry for providing high-quality services that are reliable, timely, and compliant, Twining has been a central part of some of California's most regionally significant construction projects. We employ some of the industry's most well-known construction experts who perform research as well as consult with regulatory agencies to shape the future of construction standard practices.

### 3.1.1 Company Structure

- » **Offer Legal Form:** California C Corporation
- » **Years in Business:** 23
- » **Home & Local Office Location:** Irvine, CA
- » **Parent Company:** None

### 3.1.2 Ownership & Firm History

#### Ownership Structure

- » Edward M. Twining Jr., CEO – 85.7% owner
- » Robert M. Ryan, Secretary – 14.3% owner

#### Firm History

In 1898, Edward M. Twining Jr's great-grandfather, Fred Twining, founded a Fresno based company focused on chemistry and production of pesticides to support the agricultural market in central California. Due to two devastating earthquakes and Fred Twining's subsequent response to enter the construction materials testing market, the company evolved into a testing laboratory. In 1954, ownership of this company was transferred to two family members, one being Fred Twining's grandson, Edward M. Twining Sr., and two new distinct firms were formed. This is when Edward M. Twining, Sr. moved his business to Long Beach, CA.

On August 19, 1998, Twining Consulting (Quality Assurance International, Inc. until 2012) was created and since that time has services clients in both the public and private sector, providing services on both prevailing and non-prevailing wage projects.

As detailed below, our services span from QA/QC, materials testing, and inspection, to highly technical capabilities in applied engineering and integrated disciplines. We are unequaled in our core competencies to work on vertical as well as horizontal construction projects:

- » Geotechnical engineering
- » Asphalt pavement quality assurance services
- » Asphalt pavement design and materials evaluations
- » Soils and materials testing and inspection
- » Specialty testing
- » Roofing and waterproofing consultation and inspection
- » Applied engineering and research
- » Forensic evaluation

Twining has the unparalleled ability to service even the most complex projects from inception through completion. Starting with the initial subsurface investigation and continuing through the inspection and laboratory testing required during construction, we have the engineering staff, experienced inspectors, and state-of-the-art laboratory facilities to meet all of your project needs. We have provided our team's resumes and their project responsibilities in [Section 3.2 Experience](#).

### 3.1.3 Team & Firm Qualifications



#### Benito Caban, PE

Principal-In-Charge | Joined Twining in 2005

Benito Caban, PE, has over 22 years of experience providing geotechnical engineering, materials testing services and special inspection consultation services. Benito brings technical expertise managing quality assurance and quality control services for high profile projects throughout the State of California. He has utilized his expertise during all phases of construction from the planning and proposal stage through the construction phase and post-construction monitoring. Benito has extensive experience managing complex and challenging vertical towers, as well as infrastructure construction projects. Benito has extensive experience and specialized in DSA projects. **In the last 10 years, Benito has directly managed or provided executive oversight of nearly 100 DSA projects.**



#### Paul Soltis, PE, GE

Principal Geotechnical Engineer | Joined Twining in 2005

Paul Soltis, PE, GE, has over 29 years of experience providing geotechnical investigations, analyses, and construction observation relative to the development of high-rise buildings, mixed-use facilities, DSA-permitted buildings, and other essential facilities. Paul's experience includes assuming the role of Geotechnical Engineer of Record during the construction phase of numerous high-profile projects throughout Southern California. He has extensive experience working under the jurisdiction of the City of LA Department of Building and Safety, County of Los Angeles GMED, DSA, and OSHPD. Paul is responsible for the technical oversight of Twining's geotechnical engineering projects and management of the firm's geotechnical personnel. **In the last 10 years, Paul provided geotechnical engineering services on nearly 50 DSA projects.**



#### Ahmed Tohmeh, EIT

Project Manager | Joined Twining in 2018

Ahmed Tohmeh, EIT, has more than 13 years of technical experience in the field of civil engineering. His professional experience includes the management of construction projects, as well as materials and special inspection projects from the initial planning and conceptualization phase to the construction phase and closeout. These projects range from industrial/infrastructure, OSHPD/DSA, commercial/retail, renovation, and residential. His background in construction has enabled him to have a multi-faceted approach to managing projects. **Since joining Twining, Ahmed has project managed 13 DSA projects.**





## SECTION 2

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Experience



# FIRM EXPERIENCE

## 3.2.1 Firm Experience

Twining and out team have experience working with school district clients throughout Southern California. DSA projects are one of our core competencies, and we have long-lasting relationships with school district clients with whom we provide soils and materials testing and inspection services. The following narrative details our experience working on DSA-governed projects.

### Report Distribution and Teamwork

DSA mandates that all inspection and testing should be based on DSA approved documents (plans, specifications, and IRs) and therefore our staff will utilize these documents, along with the relevant California Building Code to perform our services. Our reports will be provided immediately to on-site personnel (typically the Project Inspector and contractor) and subsequently sent to the architect, structural engineer, and district. Non-compliant items are discussed immediately with on-site personnel in order to ideally resolve the issue without having to formally document the concern. In the event that the item cannot be immediately resolved, the report is provided to on-site personnel, emailed the same day to the Architect and Structural Engineer, and uploaded to DSA Box.

### Working on a School Campus

We require that all of our personnel adhere to a code of conduct. This is especially important when working on an active K-12 campus. Our field personnel are known for being professional and respectful of the site they are on. While on an active campus, our team will execute our services so as to avoid injury or damage to any persons or property. We will exercise all necessary precautions for the safety of the District's personnel, students, and the public. This includes having adequate life protection and life saving equipment and procedures, safety apparel, adequate facilities for proper inspection and maintenance of all safety apparatus and measures, and instructions to all our personnel regarding safety and accident prevention aspects of performance of work.

### DSA Reporting & Project Closeout

Our project manager, Ahmed Tohmeh, will personally review every report, so that we are regularly identifying any non-compliant issues and resolving them with input from the project team. With this regular review, we are able to provide the DSA 291 (Project Engineer) forms the same or next day after they are requested by the Project Inspector. Gathering DSA 292 (Inspector) forms has traditionally been the area that has delayed project closeout in the past, and with DSA waiving this requirement, we are confident that obtaining DSA approval of our testing and inspection documents will be prompt and straightforward.

### Approach Philosophy

Twining has worked successfully on hundreds of projects with Unified School Districts. As the materials testing and inspection designated Laboratory Of Record (LOR), we work to ensure that the construction schedule set forth is maintained and our services never cause a delay in the delivery of any project. In fact, we strive to assist in accelerating the progress of the project.

We have been able to achieve this acceleration of progress on a number of projects for our clients in two primary ways: by providing immediate response services, even on short notice, and through continually staffing projects with multi-licensed inspectors able to cover numerous trade inspections while on site.

### No Surprises

In our experience working with school districts, in lieu of receiving plans and a construction schedule, we often receive a request to provide services from the District's authorized representative and are subsequently issued a purchase order immediately contracting Twining to begin inspection. From this point until the end of the project, we utilize our cloud-based reporting systems to provide clients and their project teams the power to stay continually informed on the status of the budget. Our goal is budget clarity and no surprises.

## Firm Years' Experience with K-12 New Construction & Modernization:

**Material Testing and Special Inspection: 23**

**Geotechnical Engineering: 17**



### Facilities Construction Expertise

#### *Inspection Services*

Twining's inspection staff consists of more than 100 inspectors located throughout California. More than 80 percent of these inspectors hold multiple inspection certifications in disciplines including structural steel, high strength bolting, prestressed concrete, reinforced concrete, structural masonry, drilled in anchors, spray applied fireproofing, and more.

These highly skilled men and women have been selected for their diversity of knowledge and ability to work with clients to achieve maximum performance at minimum cost. Twining has the resources to staff projects regardless of size and complexity with experienced and professional inspection personnel.

#### *Field Engineering*

Twining's ability to perform a variety of services in-house makes testing quicker, easier, and more responsive to our clients' needs. We perform standardized tests and services including:

- » Pull testing of building components
- » Testing of wedge anchors, epoxied anchors, and wedge anchors
- » In-place shear testing of masonry walls
- » Flat-jack load testing of masonry walls
- » Fireproofing for adhesion and cohesion
- » Floor flatness and levelness testing

#### *Materials Testing*

Twining has been at the forefront of construction materials testing for over a century. Our network of state-of-the-art laboratories, complemented by our fleet of mobile laboratories, allows us to provide in-house testing for projects throughout the state.

Twining provides fast, reliable test results that our clients can count on. We subscribe to the most stringent inspection and certification requirements in the industry. We are recognized by agencies including Caltrans, DSA, American Association of State Highway and Transportation Officials (AASHTO), United States Army Corps of Engineers (USACE), Cement and Concrete Reference Laboratory (CCRL), Federal Aviation Administration (FAA), and International Accreditation Service (IAS) along with numerous cities and counties as a certified geotechnical, paving, materials testing, and inspection laboratory.

#### *Non-Destructive Examination*

The field of non-destructive examination is undergoing rapid change, bringing technologies that had previously been the subject of research into the arena of practical application. Twining has been at the forefront of these applications; from participating in the post-Northridge SAC committees, to being the first firm to fully implement the requirements of FEMA 353 and now AWS D1.8, and to field implementation of the latest technologies such as Phased Array Ultrasonics and Time of Flight Diffraction. Twining is fully compliant with ASNT SNT-TC1A and also the stricter certification standards of CP-189.

## Firm Geotechnical Expertise

### *Geotechnical Investigation & Design*

Twining's geotechnical engineers, geologists, and technicians bring their finest professional skills and practical experience to each project. Our staff includes licensed professional geotechnical engineers (GE), certified engineering geologists (CEG), and civil engineers (PE). We have extensive experience meeting the special needs of stringent agencies, including the Division of the State Architect (DSA) and Office of Statewide Health Planning and Development (OSHPD).

Additionally, our professionals have vast experience in completing subsurface investigations involving geotechnical analysis, and providing design recommendations to meet the needs across the full spectrum of project types, from high-rise developments and hospitals, to freeway retaining walls. Typical field investigation methods include small- and large-diameter borings, cone penetration testing, down-hole logging, installation of monitoring wells, and trenching for geological/seismological hazards and fault investigations. Our vast construction experience allows us to incorporate time- and cost-effective recommendations that can be practically implemented. Our team of professionals offers advanced analytical methods such as finite element analysis and specialized software to help establish performance criteria for new projects.

### *Geotechnical Observation & Field Testing*

When the need for geotechnical engineering construction support arises, Twining is well qualified to provide comprehensive services for all types of projects. We staff all geotechnical activities with a project engineer to review project plans and specifications to ensure proper execution of the project requirements. We also staff projects in this scope with experienced field technicians, who are well versed in applicable standards and ensure all work is done in accordance with the appropriate guidelines.

We provide comprehensive daily reports to our clients that outline discrepancies and non-conformance with respect to project requirements for quick identification and resolution.

Our team of registered engineers regularly review testing results during the project. They provide necessary information to the field technicians directly and follow up with "draft" results for review and approval.

Our engineers will periodically visit the job site along with the field technician to ensure testing and observation requirements are being met and that the client is satisfied with Twining's performance. We also provide a final geotechnical report that summarizes the work done during construction, including all test results and a statement regarding compliance with the project geotechnical requirements and all applicable codes.

### *Laboratory Testing*

With our strategically located laboratories and comprehensive equipment, we are able to perform the necessary testing on projects throughout California. We maintain a rigorous training program for our experienced staff of testing technicians. Additionally, we are recognized by numerous agencies including Caltrans, Army Corps of Engineers, American Association of State Highway and Transportation Officials (AASHTO), Cement and Concrete Reference Laboratory (CCRL) and International Accreditation Service, Inc. (IAS) along with many cities and counties.

All laboratory testing operations are overseen by a registered geotechnical engineer. Our expert professionals continue to work with the industry's governing agencies to define effective applications of construction materials. With the large amount of construction-related, time-sensitive work that Twining performs, our laboratories understand the importance of and effectively accomplishes efficient turnaround times for testing.

Our lab testing capabilities include, but are not limited to:

- » Maximum dry density
- » Optimum moisture content relationships
- » Expansion index
- » Soil classification
- » Sand equivalent
- » R-value testing



### Public Works Experience

With California's fiscal situation, aging infrastructure, and continued urban growth, our cities and counties are faced with unique challenges. Never has it been more critical to maximize the value of each public works dollar spent on capital improvement than today. The quality assurance programs that Twining has established for public agencies throughout the state emphasize the most cost-effective practices utilizing industry best practices. Whether it is a major water/wastewater project, bridge or roadway improvement, underground utility work, airport improvement, or goods movement project, Twining has the requisite expertise and capabilities to effectively establish and maintain a quality assurance program that is in strict compliance with the local assistance procedures manual (LAPM) as well as state and federal mandates.

Twining provides the following services for local agencies:

- » Initial engineering design and evaluation
- » Specification development and review
- » Materials review and verification for acceptance
- » Public works inspection
- » Source inspection
- » Acceptance laboratory testing and evaluation
- » Federal compliance
- » Final quality assurance report and project closeout

Twining's involvement with the most cutting edge materials technologies enables us to assist project teams with the evaluation of construction products and determining their suitability for use. Twining has assisted construction managers, structural design engineers, and owners in developing high-strength concrete mixes utilizing low carbon emission materials, recycled asphalt pavement structural designs, and various other cementitious, geotechnical, and asphalt pavement materials that are sustainable utilizing renewable materials.

Twining is uniquely positioned to provide quality assurance programs from start to finish. Through our partnerships with Caltrans and various universities, we have knowledge of proven technological advances in construction that we can pass on to our clients and incorporate into their projects as appropriate. We routinely contribute to the American Public Works Association by presenting technical sessions related to some of the newest technological advances. Whether it involves rapid strength concrete, warm mix asphalt, high volume fly ash mixes to reduce greenhouse gasses, or 100% recycled materials, Twining can provide the proper solution for your project.



Twining has performed geotechnical investigation, geotechnical observation, materials testing, and special inspection services on literally hundreds of DSA projects. We have been certified by DSA for more than 23 years, and providing testing and inspection services on DSA projects is one of our core business lines. Following is a listing of our recent DSA projects.

#### **Newport-Mesa USD Experience**

- » *Harper School Parking Lot Renovation Borings*

#### **Orange County K-12 DSA Experience**

- » *Anaheim UHSD, Sycamore Junior HS Pavement Evaluation and Percolation Testing*
- » Anaheim UHSD, Brookhurst JHS Tennis Courts
- » Anaheim UHSD, Oxford Academy Modernization and New Building
- » Anaheim UHSD, District-wide High School CARES Act Shade Structures
- » Anaheim UHSD, District-wide Junior High School, Alterations & Construction of Various Structures
- » Anaheim UHSD, Brookhurst JHS Tennis Courts
- » Anaheim UHSD, Anaheim HS Prop 39 HVAC Upgrade
- » Anaheim UHSD, Ball JHS Dropoff Improvement
- » *Anaheim UHSD, Brookhurst Cares Act Soils Testing*
- » *Anaheim UHSD, Western HS Parking Lot Replacement*
- » Anaheim UHSD, Western HS Parking Lot Replacement
- » Anaheim UHSD, Savanna HS Modernization
- » Capistrano USD, Dana Hills HS Photovoltaic

- » Capistrano USD, Niguel HS Photovoltaic
- » Capistrano USD, San Juan Hills HS
- » Irvine USD, South Lake MS Modernization
- » *Irvine USD, South Lake MS Modernization*
- » Irvine USD, Irvine HS Measure E 2016A
- » Irvine USD, University HS Measure E 2016A
- » Irvine USD, Creekside HS Measure E 2016A
- » Irvine USD, Venado MS Measure E 2016A
- » Irvine USD, Eastshore ES Measure E 2016A
- » Huntington Beach UHSD, Edison HS Pool Replacement
- » Huntington Beach UHSD, Huntington Beach HS Baseball Clubhouse
- » *Santa Ana USD, INDA Academy*
- » *Santa Ana USD, Samueli Academy Student Innovation Center*
- » Santa Ana USD, Davis ES Ramp Work
- » Santa Ana USD, Santa Ana HS CTE and Library Renovation
- » Santa Ana USD, School of Continuing Education, ALA Relocatable Building and Shade Structure
- » Santa Ana USD, Valley HS Auto Lifts
- » *Santa Ana USD, Carver ES New Classroom Building Geotechnical Investigation*
- » *Santa Ana USD, Valley HS Parking Lot Mitigation Plan*
- » Santa Ana USD, Roosevelt – Walker Joint Use

Community Center

- » Santa Ana USD, PH-4 Soccer Fields
- » Santa Ana USD, King ES Kindergarten Building
- » Santa Ana USD, Segerstrom HS Track and Field
- » Santa Ana USD, Segerstrom HS Sports Field Upgrade
- » Santa Ana USD, Valley HS Sports Complex
- » Santa Ana USD, Valley HS Classroom Buildings
- » Santa Ana USD, Valley HS Solar Project
- » Santa Ana USD, Franklin ES Shade Structure
- » *Santa Ana USD, Saddleback HS Pool Deck Replacement Geotechnical Review*
- » *Santa Ana USD, Santa Ana HS Pool Deck Replacement Geotechnical Review*
- » Westminster School District, DeMille ES Parking Lot

#### **Other Recent K-12 DSA Experience**

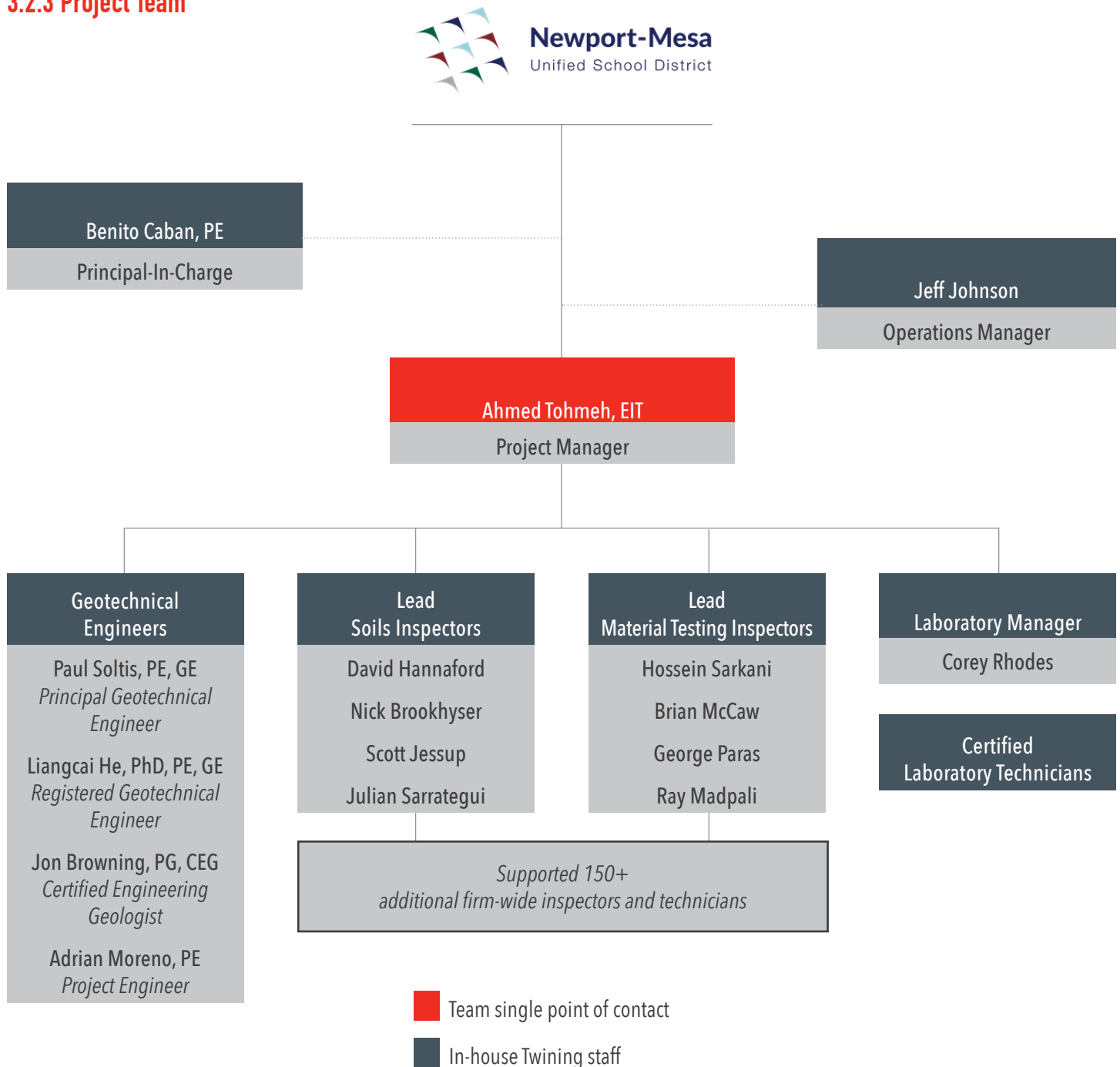
- » William Hart USD, Castaic High School
- » Culver City USD, Robert Frost Auditorium
- » San Bernardino City USD, Indian Springs HS Performing Arts Center
- » Las Virgenes USD, Agoura HS, Performing Arts Center
- » Las Virgenes USD, Calabasas HS

*Bold Italics denote geotechnical and pavement projects*

### 3.2.2. Project List Table – Select Projects Since 2018

Client	Project Scope	Contact Name, Title & Phone
Newport-Mesa USD	<b>Harper Elementary School Parking Lot Rehabilitation Geotechnical Investigation</b> - The project consisted of a geotechnical investigation to determine subsurface conditions in advance of pavement improvements to an existing parking lot area located to the northeast of the existing school.	Steve Morris   Facilities Planning Coordinator   714-679-9891
Anaheim UHSD	<b>Loara High School Pool Renovation</b> - The project consisted of additions to a restroom enclosure at pool deck; alterations to the swimming pool, construction of a locker building,, and site improvement. Twining served as Geotechnical Engineer of Record, and provided materials testing and structural inspection services.	Patricia Neely   Director of Facilities   714.999.3505
Anaheim UHSD	<b>Sycamore Junior High School Alterations and Construction of Various Structures</b> - The project included alterations to a parking lot and construction of 10 buildings on campus. Twining served as Geotechnical Engineer of Record, and provided materials testing and structural inspection services.	Patricia Neely   Director of Facilities   714.999.3505
Santa Ana USD	<b>Valley High School Expansion Geotechnical Investigation</b> - The proposed project will consist primarily of construction of a new auto tech building and a new culinary arts building, a new lobby for Building 12 (auditorium/theater), seismic retrofit of the auditorium, a new east courtyard in the area currently occupied by Building 14, and new campus commons in the area currently occupied by Building 11. Twining provided a geotechnical investigation of the project site to determine feasibility.	Jeremy D. Cogan   Director of Facilities   714.480.5349
Santa Ana USD	<b>INDA Academy</b> - The project is converting an existing building is a 9,242-square-foot, two-story, glass office building into a charter school. Twining provided a subsurface investigation and geotechnical recommendation report.	Jeremy D. Cogan   Director of Facilities   714.480.5349
Culver City USD	<b>Robert Frost Auditorium Expansion</b> - The project consisted of renovating the existing auditorium, including a new catwalk system, improvements to the stage, and back of house. Twining served as Geotechnical Engineer of Record, and provided materials testing and structural inspection services.	Christopher Dunne   Construction Manager/Measure CC Bond Program Manager   213.494.6407
Capistrano USD	<b>Dana Hills High School Solar Project</b> - The project consisted of construction of 11-Solar Panel Structures and associated electrical equipment. Twining is providing geotechnical and soil testing and inspection services	John Forney   Chief Facilities Officer   949.234.9596
William S. Hart USD	<b>Castaic High School Project</b> - This \$75 million project included the construction of 11 buildings including administrative, gymnasium, performing arts, food service, library, storage, technology and classrooms. Twining is provided a full range of testing and inspection services on this project including soils, concrete, and masonry. Timely DSA closeout is expected as the project progresses.	Amin Salari   Program Manager   661.231.5982
Beverly Hills USD	<b>El Rodeo Seismic Retrofit and Modernization</b> - BHUSD is performing a seismic retrofit and modernization of buildings A, B, C, D, and E, with alterations and conversion of the Building E basement to house administration offices and support space. Twining is providing special inspection and materials testing	Lance Blair   Bond Program Manager   310.551.5100
ABC USD	<b>Whitney High School Modernization &amp; New Science Classroom</b> - The project consists primarily of the construction of a new, 7,000-square-foot, one-story building for 4 classrooms and science labs with accessory spaces. It incorporates a concrete slab-on-grade floor and will be supported by conventional shallow foundations. Twining conducted the geotechnical investigation for the project and is also providing geotechnical engineering services, material testing, and special inspection during construction.	Ryan Carter   Bond Program Manager   562.926.5566

## 3.2.3 Project Team



# BENITO CABAN

## PE, Principal-In-Charge

### Professional Summary

Benito Caban, PE has more than 21 years of experience providing geotechnical engineering consultation services. He has utilized his expertise during all phases of geotechnical engineering, from the planning and proposal stage through the construction phase and post-construction monitoring. Benito has extensive experience managing complex and challenging construction projects under a variety of jurisdictions, including DSA. Benito will serve as principal-in-charge for this contract, providing expert oversight to all aspects of testing and inspection.

### Relevant Experience

#### Overview

- » Years' Experience: 1999 – Present
- » Joined Twining In 2005

#### Education

- » Master of Science, Civil Engineering, San Diego State University
- » Bachelor of Science, Civil Engineering, University of Puerto Rico

#### Current Licenses Held

- » Professional Civil Engineer, CA PE 73220

#### Santa Ana Unified School District, Valley High School Sports Complex

This facility includes a new football stadium, parking lot, and baseball fields. The complex houses bleachers, concession stands, electronic scoreboards and more than 190 parking spaces. Some of the campuses facilities, which includes the basketball and tennis courts, were demolished to pave the way for new courts. Five basketball courts were replaced with three new ones, and 15 tennis courts will were replaced with nine new ones. Benito served as the project executive, working closely with the project manager to ensure compliance with DSA requirements.

#### El Monte City School District, Durfee ES New 2-Story Classroom

Initially opened in 1965, Durfee School has undergone extensive remodeling and modernization. Remodeling has included new and more efficient lighting and air conditioning, compute Internet wiring in every room, new playground equipment, and a new drop-off zone/parking lot. The Durfee Elementary School Growth Project consists of the construction of a new two-story 24-classroom building, which includes a new Library, Music Room, and Lunch Shade Structure. As the Principal-in-charge, Benito was responsible for providing technical oversight, to ensure the project was running on schedule and within budget.

#### Desert Sands Unified School District, Hoover Elementary School

This project consisted of the construction of an administration building, classroom building, multi-purpose building, and one walkway cover. Benito served as the Principal-in-charge on this project, providing oversight of Twining's technical services, which included providing special inspection and laboratory testing services. Benito worked closely with the project manager to ensure compliance with DSA requirements, and that the project was within budget and performing on schedule.

# JEFF JOHNSON

## Operations Manager

### Professional Summary

Jeff Johnson brings more than 25 years' technical experience to Twining. Jeff is an ironworker by trade and holds multiple inspection certifications, which have prepared him for the role of project manager. His background gives him an edge when he steps on to a jobsite. He is able to have a more comprehensive overall view of the work being performed. He is available to project team members to answer questions or make suggestions, keeps our clients informed of budget status, works with the project team to reduce costs, and supports the delivery of our services in an efficient manner.

### Relevant Experience

#### Overview

- » Years' Experience: 1996 – Present
- » Joined Twining in 2017

#### Current Licenses Held

- » ACI Concrete Field Testing Technician – Grade I
- » ACI Post-Installed Concrete Anchor Installation
- » ICC Structural Steel & Welding - Legacy
- » ICC Structural Welding
- » ICC Reinforced Concrete
- » ICC Master of Special Inspection
- » ICC Spray Applied Fireproofing
- » ICC Prestressed Concrete
- » ICC California Commercial Building Inspector
- » ICC Structural Steel and Bolting
- » ICC Structural Masonry

#### Santa Ana Unified School District, Roosevelt-Walker Joint Use Community Center

Twining is currently providing soils, reinforced concrete, masonry, shop fabrication, welding, and shear wall inspection on this project. Jeff is serving as project manager and is always available to key construction team members to answer questions or make suggestions and he encourages and thrives upon such interaction during projects.

#### Santa Ana Unified School District, Valley High School Auto Lifts

Twining is provided reinforced concrete and expansion and adhesive anchor inspection on this project. Jeff served as a project manager and was the District's single point of contact.

#### El Camino Community College District, El Camino College Gymnasium

Jeff served as project manager on this new 55,000 square foot, two level gymnasium. Jeff seamlessly coordinated all services and communicates with the District without delay. Twining provided special inspection and materials testing, including concrete, structural steel, masonry, shop fabrication, exterior cladding, torque testing, and welding and fireproofing.

#### Coast Community College District, Golden West College Math and Science Building

Twining provided geotechnical engineering support during construction for the new three story, 50,000 square foot math and science building. Jeff served as project manager for the project and played a critical role in informing the client of budget status, working with the project team to reduce costs, and delivering our services in an efficient manner.



# AHMED TOMEH

## EIT, Project Manager

### Professional Summary

Ahmed Tohmeh, EIT, has more than 13 years of technical experience in the field of civil engineering. His professional experience includes the management of construction projects, as well as materials and special inspection projects from the initial planning and conceptualization phase to the construction phase and closeout. These projects range from OSHPD/DSA, industrial/infrastructure, commercial/retail, renovation, and residential. His background in construction has enabled him to have a multi-faceted approach to managing projects. Ahmed is responsible for materials testing and special inspection projects, technical reviews, budget and schedule tracking with clients, and effective communication and coordination with client and project teams.

### Relevant Experience

#### Overview

- » Years' Experience: 2008 – Present
- » Joined Twining In 2018

#### Education

- » MS, Civil Engineering, California State Polytechnic University, Pomona
- » BS, Civil Engineering, California State University, Long Beach

#### Current Licenses Held

- » OSHA 10 Hour Construction Health and Safety
- » LEED Green Associate and Envision Sustainability Professional
- » Engineer in Training, CA, EIT 141533

#### Anaheim UHSD, Anaheim High School Aquatics Center

The project consists of the new construction of a \$8 million aquatic center featuring a 38-meter pool, lights for night events, and covered bleachers with solar panels on top. The district is also upgrading the locker rooms, building a storage yard, and constructing a pool building with offices and shower facilities for swimmers. Twining is providing materials testing and geotechnical soils inspection and testing. Ahmed is serving as the project manager.

#### Culver City USD, Culver City HS Science Building

This project constructed a two-story modular science building designed for joint use by Culver City Middle School and the Culver City High School. The building will be abutting the lacrosse field, adjacent to the shared border of the schools. The project included chemistry laboratories on the upper floor for the high school and physical science laboratories on the ground floor for the middle school. The project was designed and constructed under the jurisdiction of the DSA. As project manager, Ahmed served as primary point of contact for the client for all project related matters.

#### Long Beach USD, Various Projects

LBUSD educates more than 72,000 students, from preschool to high school, in 85 public schools located in the cities of Long Beach, Lakewood, Signal Hill, and Avalon on Catalina Island. With a team of more than 12,000 full-time and part-time employees, the school district is the largest employer in Long Beach and the third largest school district in California. Ahmed is the current project manager for all of Twining's projects at Long Beach USD. Recent projects include Muir Elementary School, Magnolia High School, and the Fire Alarm Project Phase 4.

# PAUL SOLTIS

## PE, GE, Principal Geotechnical Engineer/GEOR

### Professional Summary

Paul Soltis' experience includes geotechnical investigations and analyses relative to the development of high-rise buildings, mixed-use facilities, DSA- and OSHPD-permitted buildings, and other essential facilities. Paul's experience includes assuming the role of Geotechnical Engineer of Record during the construction phase of numerous high-profile projects throughout Southern California. He has extensive experience working under the jurisdiction of various cities' Departments of Building and Safety, County of Los Angeles GMED, DSA, and OSHPD. Paul is responsible for the technical oversight of Twining's geotechnical engineering projects and management of the firm's geotechnical personnel.

### Relevant Experience

#### Overview

- » Years' Experience: 1992 – Present
- » Joined Twining In 2005

#### Education

- » MS Geotechnical Engineering  
University of Colorado, Boulder
- » BS Civil Engineering  
California Polytechnic  
State University,  
San Luis Obispo

#### Current Licenses Held

- » Professional Civil Engineer,  
California PE 56140
- » Professional Geotechnical  
Engineer, California GE 2606

#### Irvine Unified School District, Measure E Expansion Projects

Measure E was passed by Irvine voters in June 2016 to ensure all students, not just those in newer neighborhoods, have access to modern learning environments and technology to support IUSD's high academic standards, and to prepare students for 21st century college and their careers. Measure E will provide a maximum available bond issuance of \$319 million for facilities improvements at 28 of the District's aging schools. Twining provided geotechnical and soil testing and inspection services. Paul served as the GEOR for the Measure E school projects at University High School and Creekside High School.

#### CCUSD, Robert Frost Auditorium Expansion

The project consisted of renovating the existing auditorium, including a new catwalk system, improvements to the stage, and back of house. This work involved the installation of new concrete pile foundations, pile caps, structural steel framing, concrete slabs, shear walls, and masonry construction. Twining was selected to provide a full range of services on this project. We assumed the role as Geotechnical Engineer of Record, and provided observation, and testing. We also provided materials testing and structural inspection services. Paul served as the project executive and assumed the role of GEOR.

#### Coast CCD, Golden West College Math and Science Building

Twining performed the geotechnical engineering subsurface investigation in support of the foundation and grading design for the new 3-story, 50,000-square-foot math and science building. Subject to review by DSA and CGS, our report was prepared, including the foundation design recommendations and findings with regard to geologic hazards. Twining provided geotechnical engineering support during construction and Paul served as Geotechnical Engineer of Record.

# JON BROWNING

## PG, CEG, Certified Engineering Geologist

### Professional Summary

Jon Browning, PG, CEG, brings more than 14 years of experience in the engineering geology and environmental consulting industry. His professional experience includes geologic feasibility studies, site characterization, seismic site assessments, engineering design, and construction phases of numerous mining, civil, and land development projects. His expertise lies in developing subsurface geotechnical exploration strategies for fault trench and landslide investigations, geologic field mapping, executing and managing large field investigation projects, directing subcontractors, consulting with client, and preparing technical reports.

### Relevant Experience

#### Overview

- » Years' Experience: 2007 – Present
- » Joined Twining In 2019

#### Education

- » BA, Geography with emphasis in environmental and natural resources and Geology Minor, San Diego State University, San Diego, 2005
- » GIS, Certificate, Mesa College, San Diego, 2003

#### Professional Memberships / Registrations

- » Professional Geologist, CA, 9012
- » Certified Engineering Geologist, CA, 2385

#### Anaheim UHSD, Ball Junior High

The project consisted of adding a new marquis structure to the front of the school, building new shade structures, and making pavement improvements. Twining provided geotechnical investigation services that encompassed reviewing site background information, coordinating and performing field exploration, performing geotechnical laboratory testing, providing the results of the geotechnical analyses. Jon served as the certified engineering geologist and oversaw the subsurface investigation of existing parking lot to provide geotechnical recommendation for pavement design.

#### Anaheim UHSD, Sycamore Junior High

Twining currently hold an on-call geotechnical engineering services contract with the District. As a part of this contract in 2019, the firm provided infiltration testing for the proposed stormwater BMPs and subsurface investigation of existing parking lot to provide geotechnical recommendation for pavement design. Jon served as the certified engineering geologist.

#### CSU Long Beach, Los Alamitos Student Housing

Jon performed a subsurface investigation and evaluated the liquefaction data to determine the foundation design recommendations for a proposed elevator addition to an existing 3-story student housing structure. Jon served as the certified engineering geologist.

#### CSU Long Beach, Beachside Student Housing

Jon performed a subsurface investigation and evaluated the liquefaction data to determine the foundation design recommendations for a proposed elevator addition to an existing 3-story student housing structure. Jon served as the certified engineering geologist.

# LIANGCAI HE

PhD, PE, GE, Chief Geotechnical Engineer

## Professional Summary

Dr. Liangcai He, PE, GE, brings over 29 years of experience to Twining. Liangcai has extensive experience in earthquake engineering, soil-structure interaction, field investigations, earthwork and foundation design, retaining walls, seepage and groundwater modeling, embankment dams and levees, slope stability, and preparation of technical reports.

## Relevant Experience

### Overview

- » Years' Experience: 1992 – Present
- » Joined Twining In 2019

### Education

- » PhD, Structural Engineering with an emphasis in Geotechnical Engineering, University of California, San Diego
- » MS, Civil and Structural Engineering with an emphasis in Geotechnical Engineering, Nanyang Technological University, Singapore
- » BS, Hydraulic and Hydropower Engineering, Tsinghua University, China

### Current Licenses Held

- » Professional Civil Engineer, California PE 73280
- » Geotechnical Engineer, California GE 3033

### Santa Ana USD, INDA Academy

Santa Ana USD is rehabilitating the existing building at 2495 Campus Drive for the INDA Academy charter school. The building will be seismically retrofitted, the parking lot repaved, a playground added, and a stormwater infiltration system added. The seismic work and structural changes will require that additional foundations be added. Twining conducted a geotechnical investigation for the proposed site improvements. Liangcai served as chief geotechnical engineer.

### Pacific Charter School District, Olympic Charter Middle School

The new structure entailed construction of a 3-story, combination structural steel, wood-frame, reinforced masonry building, which was founded on convention shallow foundations with a total planned area of approximately 36,000 square feet. Work included geotechnical engineering and site soils compaction, as well as special inspections. Liangcai served as the geotechnical engineer of record.

### San Bernardino City USD, San Bernardino High School Auditorium Addition

Twining provided an initial 2014 geotechnical investigation for and addition and renovation to the San Bernardino High School Auditorium that was approved by DSA in 2015. The project was not undertaken and in 2019, Twining was asked to perform a reevaluation of subsurface conditions at the site and update our previous geotechnical recommendations for the proposed improvements in conformance with the 2016 CBC for the current DSA submittal and approval. Liangcai served as chief geotechnical engineer.

# ADRIAN MORENO

## PE, Project Engineer

### Professional Summary

Adrian Moreno, PE, brings over eight years of technical expertise to Twining. He excels at geotechnical engineering functions at any project stage, from the management of subsurface investigations, laboratory testing programs, and the preparation of geotechnical and foundation recommendation reports during the design phase, to the management of quality control testing and inspection programs during the construction phase of projects. Adrian has managed a number of complex projects, from initial authorization to completion, and is familiar with all aspects of project management, including client interaction, work scheduling, reviewing of field and laboratory data, establishing and monitoring project budget, invoicing, and quality control.

### Relevant Experience

#### Overview

- » Years' Experience: 2013 – Present
- » Joined Twining In 2013

#### Education

- » BS, Civil Engineering  
California Polytechnic State University, Pomona

#### Current Licenses Held

- » Professional Civil Engineer, California PE 87057

#### San Bernardino City USD, Indian Springs CTE Modernization

This project consisted of modernizing the existing CTE building on the campus of Indian Springs High School in San Bernardino. The modernization project included aesthetic improvements and an approximately 1,850-square-foot addition to the existing structure. Adrian served as the project manager

#### Coast CCD, Golden West College Math and Science Building

Twining performed the geotechnical engineering subsurface investigation in support of the foundation and grading design for the new 3-story, 50,000-square-foot math and science building. The project was subject to review by DSA and CGS and our report was prepared in accordance with those requirements, including the foundation design recommendations and findings with regard to geologic hazards. Recommendations for the mitigation of expansive soils were also provided. Twining also providing geotechnical engineering support during construction, as well as material testing and inspection. Adrian served as senior staff engineer.

#### San Bernardino City USD, Indian Springs High School Performing Arts Center

The project consisted of the geotechnical investigation for a proposed new 19,000-square foot performing arts center constructed of glass and masonry (CMU). Twining provided geotechnical investigations services that encompassed reviewing site background information, coordinating and performing field exploration, performing geotechnical laboratory testing, and providing the results of the geotechnical analyses. It was determined that the proposed project was geotechnically feasible and Twining provided recommendations that were incorporated into the design and are implemented during construction of the project. Adrian served as the senior engineer.



# DAVID HANNAFORD

## Lead Soils Inspector

### Professional Summary

David Hannaford is a recently graduated civil engineer, who has more than six years of experience providing inspection services. Specializing in soils inspection, David's educational background gives him a strong understanding of how the tests he completes impact the overall project. He works with directly with the project manager on each of his projects, acting as a resource in the field who can make suggestions and provide recommendations.

### Relevant Experience

#### Overview

- » Years' Experience: 2015 – Present

#### Education

- » BS, Civil Engineering,  
California State University, Long Beach

#### Current Licenses Held

- » ACI Concrete Field Testing Technician, Grade I
- » ICC Soils
- » Nuclear Gauge Operator Training
- » RSO Certificate
- » US DOT HAZMAT

- » LBUSD, Browning HS
- » LBUSD, Grant HS
- » LBUSD, Sato Academy
- » LBUSD, ADA Improvements at Poly HS
- » AUHSD, Loara HS Pool Renovation
- » AUHSD, Savanna HS Site Improvements
- » AUHSD, Cypress HS Pool Renovation
- » Lennox School District, Solar Projects
- » CCUSD, CCHS Science Building
- » CCUSD, Robert Frost Auditorium
- » SAUSD, Carver Modernization
- » Orange Coast College, Observatory Rep
- » Orange Coast College, Professional Mariners' Training Session
- » CSULB West Campus Dropoff
- » CSULB West Campus Dropoff
- » CSULB Dance Center
- » CSULB Horn Center
- » CSUF, Titan Student Union Expansion
- » Chapman University, Musco Center for the Arts
- » Rowland USD, Telesis Academy Playground
- » CSULB, Lot 3 Improvements
- » CSULB, Data Center Consolidation Project
- » CSULB, Lot 8 Improvements

# NICK BROOKHYSER

## Lead Soils Inspector

### Professional Summary

Nick Brookhyser specializes in all aspects of inspections, with an emphasis in soils and concrete. As a multi-certified inspector, Nick is able to perform multiple inspections on a single dispatch. Nick has a high-level interpersonal communications skills and excellent written communication. He is also able to read/interpret plans.

### Relevant Experience

#### Overview

- » Years' Experience: 2017 – Present

#### Current Licenses Held

- » ACI Concrete Field Testing Technician – Grade I
- » ICC Reinforced Concrete
- » ICC Soils

- » AHUSD, Cypress High School
- » AHUSD, Kennedy Relocation Project
- » AHUSD, Oxford Academy Modernization & New Construction
- » CSULB, CCPE New Classroom Building
- » Mater Dei High School, Parking Structure
- » PCSD, Olympic Charter Middle School
- » Pomona College, Museum of Art
- » One Paseo Parking Structure
- » Carte Hotel Tower
- » Laguna Niguel Apartments
- » Pepperdine University Residence Hall
- » Fullerton Family Housing
- » Scripps, Encinitas MOB Core and Shell
- » Soka, STEM/Science Building Project
- » St. Bonaventure Catholic Church
- » 2300 Wilshire Materials Testing
- » 8899 Beverly Blvd. Adaptive Reuse
- » Additions and New Building #4
- » Bella Casa Development, Whittier Park Place
- » Carte Hotel San Diego (401 W. Ash)
- » Centercal Properties, 2nd & PCH Long Beach
- » Civita 3 Apartment Homes

# SCOTT JESSUP

## Lead Soils Inspector

### Professional Summary

Scott Jessup brings over 35 years' experience to the Twining team. He specializes in soils and earthwork inspections. Scott has worked on a vast array of projects ranging from DSA school projects to major arterial freeways and massive master developments.

### Relevant Experience

#### Overview

- » Years' Experience: 1986 – Present

#### Current Licenses Held

- » USACE Construction Quality Management Certified #784
- » Nuclear Gauge Safety License
- » OSHA 10 Hour Safety Course

- » SAUSD, Roosevelt Walker Joint Use Facility
- » SAUSD, PH-4 Soccer Fields
- » SAUSD, Valley High School - Classroom Building
- » Rialto USD, Eisenhower HS HVAC Upgrade
- » Lynwood USD, Hosler MS Replacement
- » Lynwood USD, Lynwood HS Replacement
- » Palomar College, Parking Structure and Police Substation
- » UCR, Campus Book Store & Career Center
- » Chapman University, Digital Media
- » Chapman University - Center for Science
- » CSUF, Chilled Water Line
- » CSULB, Blair Field Upgrade
- » CSULB ,HHW Piping Infrastructure
- » CSULB, Lot 7 Renovations
- » CSULB, West Campus Dropoff
- » CSULB, Blair Field Renovations Ph 1
- » Scripps, Encinitas MOB Core and Shell
- » Sharp, Birmingham Parking Structure
- » Sharp, Copley Drive Mezzanine Deck Addition
- » Sharp, Copley Geotechnical Services
- » Sorano Oak Park Apts, Moreno Valley

# JULIAN SARRATEGUI

## Lead Soils Inspector

### Professional Summary

Julian Sarrategui brings over 15 years' experience to Twining. He specializes in all aspects of inspections, with a special emphasis in concrete, soils, and spray-applied fireproofing

### Relevant Experience

#### Overview

- » Years' Experience: 2006 – Present

#### Current Licenses Held

- » LA City Grading
- » Nuclear Gauge Certified
- » USACE QCM Certified

- » SAUSD, King Elementary School
- » Lynwood USD, Del Terr High School Field Project
- » CSULB, Lot 3 Improvements
- » CSULB, Lot 8 Improvements
- » CSULB, Lot 6 Improvements
- » Cal Poly Pomona, College of Business Administration
- » Cal Poly Pomona, Parking Structure II
- » CSULB, Student Recreation & Wellness Center
- » CSULB, Peterson Hall #3
- » CSULB, USU Slab Replacement
- » CSULB, Track Repair
- » CSULB, Hillside Dining
- » CSULB, CTS Apple 2
- » CSULB, SSPA RR Upgrade
- » CSULB, Pool ADA Upgrade
- » Chapman University, Musco Center for the Arts
- » Chapman University, Tennis Courts Grading

# HOSSEIN SARKANI

## Lead Special Inspector

### Professional Summary

Hossein Sarkani brings over 25 years' technical experience to Twining. His experience encompasses masonry, bolting, welding, concrete, and spray-applied fireproofing inspections. Since joining Twining, his focus has been K-12, Community College, and Higher Education projects in the Southern California region.

### Relevant Experience

#### Overview

- » Years' Experience: 1996 – Present

#### Educations

- » BA, Design, The Higher Institute of Engineering, El Shorouk City, Egypt

#### Current Licenses Held

- » AWS Certified Welding
- » ACI Concrete Field Testing Technician, Grade I
- » DSA Masonry
- » ICC Master of Special Inspection,
- » ICC Reinforced Concrete,
- » ICC Prestressed Concrete
- » ICC Structural Steel and Bolting
- » ICC Structural Welding
- » ICC Structural Masonry
- » ICC Spray Applied Fireproofing

- » Culver City USD, Robert Frost Auditorium
- » Rialto USD, Eisenhower High School Performing Arts
- » Santa Ana USD, Roosevelt-Walker Joint Use Community Center
- » El Monte City SD, Durfee New Two-Story Classroom Building
- » Westminster ESD, Stacey Middle School
- » Sage Hill High School
- » Golden West Community College, Math & Science Building
- » Pomona College Campus Center
- » Cal Poly Pomona, Innovation Village Phase IV
- » Biola University Library
- » UC Irvine, California Institute for Telecommunications and Information Technology
- » Discovery Science Center
- » Marina Del Rey Hospital Surgery Expansion
- » NR Newport Plaza
- » Rockwell Semiconductors
- » Orange County Fire Authority
- » Exxon Mobil Torrance Refinery
- » Toyota Corporation Office Buildings
- » Trenton Corporate Center



# BRIAN MCCAW

## Lead Special Inspector

### Professional Summary

Brian McCaw is a highly experienced construction professional, frequently fulfilling role of QA/QC or special inspection lead inspector on high profile/large scale projects. Brian has 19 years special inspection experience, focused on projects in LA and Orange Counties. Brian prides himself in being proactive, proficient, reliable, resourceful, and self-directed.

### Relevant Experience

#### Overview

- » Years' Experience: 2002 – Present

#### Current Licenses Held

- » ACI Concrete Field Testing Technician, Grade I
- » AWS Certified Welding Inspector
- » ICC California Commercial Building Inspector
- » ICC Master of Special Inspection
- » ICC Prestressed Concrete
- » ICC Reinforced Concrete
- » ICC Spray Applied Fireproofing
- » ICC Structural Masonry
- » ICC Structural Steel and Bolting
- » ICC Structural Steel and Welding

- » CCUSD, CCHS Science Building
- » CCUSD, Robert Frost Auditorium
- » NOCCCD, Cypress College SEM Project
- » El Camino College, New Gymnasium
- » Palomar College, Parking Structure and Police Substation
- » SAUSD, Roosevelt Walker Joint Use
- » CSULB, Lots 7 & 14 Solar Photovoltaic
- » CSULB, MSX Utilities Infrastructure Upgrades, Phase II
- » LAUSD, Monsenor Oscar
- » LBCCD, LAC-01 Data Room MEP Upgrade
- » LBUSD, Muir K8 HVAC
- » Coast CCD, OCC Professional Mariner Training Center
- » CSULB, Parking Structure 2
- » RUSD, Eisenhower HS Stadium Reconstruction
- » Chapman University, Center for Science and Technology
- » City of Hope, 5th Avenue
- » Community United Methodist Church
- » CSUF, Chilled Water Line
- » CSULB, Lot 7 Renovations
- » Culver Studios
- » Samueli Academy Student Innovation Center
- » SAUSD, Valley High School Classroom Building

# GEORGE PARAS

## Lead Special Inspector

### Professional Summary

George Paras has more than a decade of experience providing special inspection. His experience encompasses all aspects of concrete testing and inspection. Utilizing his multi-discipline certifications, he is able to help keep construction on schedule and inspection costs low.

### Relevant Experience

#### Overview

- » Years' Experience: 2011 – Present

#### Current Licenses Held

- » ACI Concrete Field Testing Technician, Grade I
- » ICC Reinforced Concrete
- » ICC Fireproofing
- » ICC Structural Masonry
- » ICC Structural Steel and Welding
- » County of Los Angeles Concrete
- » County of Los Angeles Masonry
- » County of Los Angeles Welding

- » Disney Big D Café
- » Disney Parking Structure
- » Fed Ex Anaheim Ground
- » Ashley Furniture
- » Shores Parking Structure
- » Bayview Lobby Reimaging
- » Flower Hill Promenade
- » Fed Ex Rialto
- » Skechers Warehouse
- » Shea Homes Pump Station
- » Christ Cathedral
- » Prolacta Bio Science
- » Meeker Baker
- » Canopy at Total Wine
- » Shady Canyon Golf Club
- » Skechers Conveyor Addition
- » Praxair Cooling Tower
- » Chapman University, Digital Media Arts Center
- » Birch Hills Apartments
- » Lex On Orange

# RAY MAGPALI

## Lead Special Inspector

### Professional Summary

Ray Magpali brings more than 12 years of experience in the construction industry. His experience encompasses all aspects of welding, and concrete inspection.

### Relevant Experience

#### Overview

- » Years' Experience: 2005 – Present

#### Current Licenses Held

- » ACI Concrete Field Testing Technician, Grade I
- » ICC Prestressed Concrete
- » ICC Reinforced Concrete
- » ICC Spray Applied Fireproofing
- » ICC Structural Masonry
- » ICC Structural Welding

- » Uptown Newport Building
- » Seacoast Grace Church
- » West Hollywood Park & Library
- » Tustin Center Phase II Office Building
- » Aerospace Building A6E Pod
- » St. Thomas More Catholic Church
- » Strata, San Diego
- » St. Nicholas Parish Center
- » Granite Park, Pasadena
- » Renaissance Club Sport, Aliso Viejo
- » Lakeshore Plaza, Dos Lagos Phase 1
- » Huntington Outpatient Pavilion MOB and Parking Structure
- » Cal Poly Pomona Building 3
- » Irvine Center Towers and Parking Structure
- » Orange County Water District, Huntington Beach
- » Walgreens, Escondido
- » Ralphs, Huntington Beach
- » Knox Logistics, Riverside
- » Disney Grand Central Office Building
- » Disney Grand Central Parking Structure
- » Diamond Hills Plaza Renovation
- » The Forum, Inglewood

### 3.2.4 Public Works Understanding

Twining currently holds several on-call geotechnical engineering and materials testing and inspection contracts with Public Works agencies throughout California. We are intimately familiar with the applicable laws and requirements for public works projects and have the experience to understand the nuance differences between different agencies. We are also aware of the special requirements for construction projects utilizing public funding. In general, Public Works projects follow the 2019 California Building Code with some cities and counties having their own modification of that base code. The Standard Specifications for Public Works Construction (aka, "Green Book" Specifications) is also integral to Public Works construction. Paul Soltis and other Twining personnel have participated in a committee for the development of the specifications for cement-treated soil, and all Twining engineering personnel are intimately familiar with Green Book Specifications.

### 3.2.5 District Contracts

In the past three years Twining has worked on one project for the District.

**Project Name:** Harper Elementary School Parking Lot Rehabilitation Geotechnical Investigation

**Project Address:** 425 East 18th Street, Costa Mesa, CA 92627

**Project Description:** The project consisted of a geotechnical investigation to determine subsurface conditions in advance of pavement improvements to an existing parking lot area located to the northeast of the existing school.

**Contract Amount:** \$6,993.00

**District Contact:** Steve Morris | Facilities Planning Coordinator  
| 714-679-9891



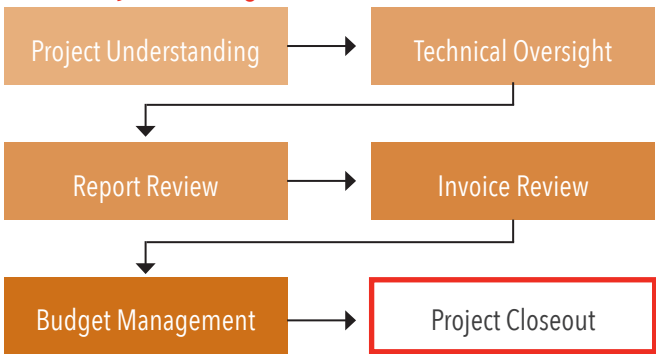
## SECTION 3

### Project and Cost Management

# PROJECT AND COST MANAGEMENT

Twining has assigned Ahmed Tohmeh, EIT as your Twining project manager. Ahmed will utilize our advanced project management approach, which focuses on communication with the District at every turn. Ahmed will provide ongoing communication with the entire project team, including the District's construction team, inspector of record, and structural engineer. We have sustained longevity as a company by evolving with project demands, which is highlighted by our project management approach.

## 3.3.1 Project Management



### Approach to Providing Materials Testing & Inspection Services

The following is our approach and methodology for managing materials testing and special inspection tasks in support of the District, as well as our outline of the sequential activities that will be undertaken to complete the tasks required for special inspections and materials testing services:

Twining receives a formal request for services from the designated District representative briefly describing the scope, size, and services required. A set of plans, and specifications, will be made available for Twining to review prior to and during the course of the project.

Upon a dispatch request from your representative, the appropriate Twining staff with the required certifications is assigned to the project. The technicians and inspectors are available within 24 hours of the representative's request and often provided with even less prior notification.

The project technician/inspector performs appropriate testing or inspection and logs location of each test or item inspected. When required, samples are obtained from construction materials for further lab testing. The technician or inspector logs his daily testing, inspection, and sampling and provides a copy of his daily report to the District representative for their signature. The daily report also contains a log of his hours covering the duties performed that day.

If a material type (e.g. ready-mixed concrete) requires plant inspection, both the plant and field technicians will communicate directly with your representative regarding batched quantities, time of shipment, total yards at the plant, plant break downs, and all pertinent daily activities.

Daily field and shop reports are reviewed by Ahmed along with all laboratory test results and distributed weekly to the project team. A log of all tests and inspections are kept by Jeff, including the tracking and resolution of any non-compliant items. Twining also provides all necessary closeout documents at project completion.

### Approach to Providing Geotechnical Design and Construction Services

Our team will support the District by successfully developing and implementing field investigation plans involving field data collection.

Under the leadership of our project manager, we will develop a laboratory testing program to conduct soil surface and subsurface characterization tests as applicable to the needs of the project.

Twining performs seismic analyses to develop design criteria in accordance with code or other design requirements, recommendations for allowable soil bearing pressure and design of foundations to include embankment and excavation procedures,



settlement and consolidation analyses, de-watering, subsidence, landslide mapping, slope stabilization, soil corrosion, erosion, and stormwater sediment control.

Our engineers will work closely with our field inspection personnel during construction to ensure that the inspector understands the geotechnical testing needs of the project. Our engineers will provide oversight during construction to remain fully involved, which allows us to quickly turn around Form 293 closeout documents when needed.

### 3.3.1.1 Efficiency and Cost Control

For all projects assigned, we make every effort to mitigate cost and schedule overruns, monitor inspection services on a daily basis, and provide monthly budget status updates to the District's project manager. Our goal is to keep the project manager continually updated on the project budget, so that they always know how much is remaining, and if we are on target throughout the project. If there is a deviation in our budget, we will notify the project manager immediately, and work with the project team to address the issue accordingly.

With this system we can generate budget reports in near real time, with reports like the one above being able to be provided to the District on daily basis, if desired. These reports are highly customizable. They can highlight type of inspection services, regular time/double time/overtime expenditure, and are cross-referenced with Twining's budget to provide clients a clear picture of how much money is being billed on a daily, weekly, or monthly basis; how much money they have in their inspection budget; and what percentage of the inspection budget has been utilized.

We have successfully utilized this approach on previous projects with other California DSA projects and the only deviations from the initial budget estimates involved approved changes in scope.

Out full team hourly rates are provided in firm schedule of fees included in **Section 3.7 Other Forms**.

### 3.3.12 Project and Schedule Management

Ahmed will work with District to avoid cost overruns, and will work to provide you with cost savings wherever he can, providing recommendations to the District representative, during regular meetings. Ahmed's experience on DSA projects has provided him with the experience to handle projects that run 24/7 and feature multiple on-site inspection personnel. He is your single point-of-contact with our office, coordinating all of Twining's services, including soils testing and evaluations of existing structures.

Ahmed will take responsibility to provide any feedback you request and respond to any project requirements. This includes all administrative queries related to budget, invoicing, scheduling, and project logistics. He reviews all inspection reports and test results prior to distribution within a one week turnaround, and reviews monthly invoices for accuracy and thoroughness prior to submittal.

We have provided Ahmed's approach and methodology for managing materials testing and special inspection tasks on the following page. For every project task, our team will go to great lengths to look for areas in the scope where the testing and inspection costs can be reduced and have incorporated these recommendations into our approach. This is something we have demonstrated time after time on our previous DSA K-12 projects with throughout Orange County and Southern California.

Twining's field and laboratory reports are digitally native, searchable, and distributed via email to all relevant project and design team members. Our proprietary e-reporting system maximizes the timeliness and accuracy of our testing and inspection reporting and documentation

	Concrete	Masonry	Steel	PM	Admin	Materials	Pickups	Soil	Fireproof	Other	Total
<b>Jul-17</b>				\$240.00	\$214.85	\$1,250.00		\$1,827.50		\$3,844.00	<b>\$7,376.35</b>
<b>Aug-17</b>	\$11,985.50		\$1,320.00	\$120.00	\$1,325.12	\$4,400.00	\$1,120.00	\$14,046.25		\$11,179.00	<b>\$45,495.87</b>
<b>Sep-17</b>	\$21,250.00			\$300.00	\$1,781.63	\$4,100.00	\$1,640.00	\$21,717.50		\$10,380.00	<b>\$61,169.13</b>
<b>Oct-17</b>	\$8,330.00		\$440.00	\$240.00	\$953.55	\$1,800.00	\$720.00	\$14,875.00		\$5,380.00	<b>\$32,738.55</b>
<b>Nov-17</b>	\$3,102.50		\$8,670.00	\$240.00	\$692.96	\$3,556.00		\$6,800.00		\$730.00	<b>\$23,791.46</b>
<b>Dec-17</b>	\$15,300.00		\$2,380.00	\$240.00	\$957.73	\$4,930.50	\$1,200.00	\$5,673.75		\$2,200.00	<b>\$32,881.98</b>
<b>Jan-18</b>	\$1,360.00		\$27,837.50	\$480.00	\$1,058.03	\$2,760.00	\$200.00	\$318.00		\$2,350.00	<b>\$36,325.53</b>
<b>Feb-18</b>			\$30,438.00	\$480.00	\$1,381.75	\$972.00		\$680.00		\$155.00	<b>\$54,306.75</b>

Sample of Twining DSA project management budget tracking document that is shared monthly with clients

### 3.3.2 Computer Project Management/Scheduling & Electronic Design

Twining performs roughly 230 projects a year. On any given day, our firm will have inspectors dispatched to a dozen or more projects. This volume of work and tempo of inspection necessitates a well refined and effective dispatching and reporting system.

In addition to being experts in the DSABox, Twining utilizes a suit of software programs to keep clients informed out their projects.

#### Field Reports

Our field inspectors utilize a paperless, email-based field reporting system accessible on their smartphones or tablets, which allows for rapid report turnaround. This system removes the potential for human error, omitting the possibility for lost reports or missing or incorrect project numbers.

#### What you get and how it gets to you

Our e-reporting process is straightforward and works as follows:

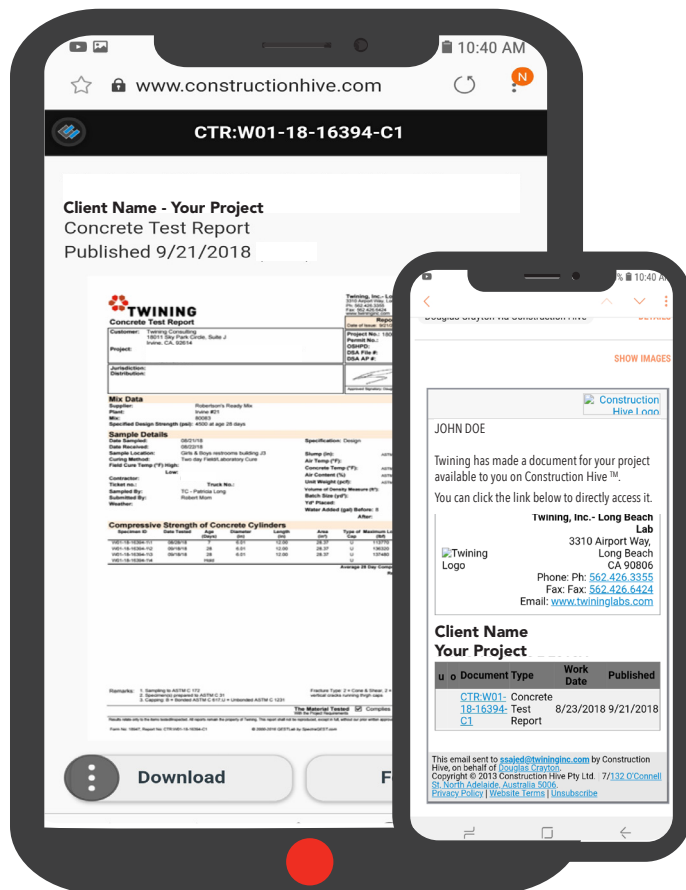
- » Daily reports are filled out in the field electronically on Twining's proprietary digital testing form
- » The completed report is emailed automatically to Twining's project manager who will review it
- » After review, the electronic reports are submitted via email on a daily basis to a distribution network identified at the project's kickoff

**With Twining's e-reporting system, clients have access to inspection reports within 24 hours and laboratory reports within 72 hours.**

A process that previously took days to complete is now done in minutes, and field reports can be reviewed in near real time to ensure they are accurate and complete.

#### Laboratory Reports

We utilize ConstructionHive™, an innovative cloud-based platform that provides a streamlined distribution process for all our laboratory reports. This system allows us to provide clients and their design teams instant access once a result is entered into the system, as well as providing the ability to easily search for and locate all previous reports.





# SECTION 4

Subconsultants

# TEAM SUBCONSULTANTS

Twining anticipates the use of the following subconsultants/subconsultant categories related to our geotechnical engineering design scope of services:

## **Geotechnical Drilling and CPT: Gregg Drilling**

Gregg Drilling offers a wide range of services for environmental, geotechnical, and marine site investigation and remediation. Since their inception, Gregg Drilling has been widely recognized as a leader and innovator in drilling, sampling, CPT, and subsurface investigation, providing clients in industry and government with the highest quality services.

The Gregg companies are directed and staffed by geotechnical and environmental professionals with experience in industry, consulting, and research. All personnel are highly trained, certified, and experienced in site investigation technologies and applications. These exceptional qualifications enable Gregg personnel to solve complex problems and create a seamless working relationship between our staff and our clients.

**Business Address:** 2726 Walnut Avenue, Signal Hill, CA 90755

**Phone Number:** 562.427.6899

## **Utility Location: GEOVision**

GEOVision offers a full range of high-quality geophysical data acquisition, analysis, and imaging services that are useful for utility location and subsurface evaluation of soil/rock materials. GEOVision specializes in non-invasive methods of investigation for engineering, environmental, groundwater, mining, and archaeological applications, including subsurface geologic and hydrological characterization; subsurface infrastructure characterization; earthquake hazard mitigation; and engineering properties of soil, rock, and structure.

**Business Address:** 1124 Olympic Drive, Corona, CA 92881

**Phone Number:** 951.549.1234



## SECTION 5

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### References

# SANTA ANA USD

## INDA Academy

### Relevance

- » Geologic hazards study
  - » Preparation of geotechnical report
- » Subsurface investigation and laboratory testing



### Owner Name

- » Santa Ana Unified School District

### Location

- » Santa Ana, California

### Owner Contact

- » Jeremy D. Cogan, AICP
  - » Director of Facilities
- » 1601 East Chestnut Avenue  
Santa Ana, CA 92701
- » Office: 714.480.5349

### Contract Type

- » Time and Materials

### Contract Amount

- » \$17,675.00

### Start Date

- » 10.09.2019

### Completion Date

- » 11.18.2019

### Project Description

The Santa Ana Unified School District is planning on site improvements in order to use it as the INDA Academy charter school. Proposed improvements will include seismically retrofitting the existing 9,242-square-foot building, repaving the parking lot, and adding two playgrounds and a stormwater infiltration system. The existing building is a two-story glass office building and will be improved for use as the charter school building. It is anticipated that the seismic retrofit and other changes will require additional foundations for the building.

### Twining Scope of Service

Twining provided a subsurface investigation and geotechnical recommendation report for the proposed INDA Academy. Tasks performed by Twining's team included reviewing background information and site reconnaissance; coordinating and performing field exploration, performing percolation testing; performing geotechnical laboratory testing; conducting engineering analyses; and preparing the final geotechnical report.

Among other things, Twining's final engineering analysis and reports included recommendations regarding: site preparation and grading; appropriate foundation type for the structures; design criteria for recommended foundation type; estimates of foundations settlement; subgrade preparation for concrete slabs-on-grade; suitability of on-site soil for use as fill; impact of groundwater on design and construction; and the potential for soil liquefaction.



# ANAHEIM UHSD

## Oxford Academy Modernization

### Relevance

- » Geotechnical Engineering During Construction
- » Materials Testing
- » Special Inspection



### Owner Name

- » Anaheim Union High School District

### Location

- » Cypress, California

### Owner Contact

- » Patricia Neely, AIA
- » Director of Facilities
- » 501 Crescent Way  
Anaheim, CA 92803
- » Office: 714.999.3505

### Contract Type

- » Time and Materials

### Contract Amount

- » \$250,000

### Start Date

- » 07.05.2018

### Completion Date

- » 04.08.2020

### Project Description

Located in Cypress, California, Anaheim UHSD's Oxford Academy is ranked #2 in California High Schools and #12 in National Rankings. The campus offers students a competitive advantage in learning, academics, and college preparation. The school opened in 1998.

This modernization project included a new music building, landscaping, perimeter fencing and gates. The project also included conversion of the library and choir room shop to two classrooms and a workshop, construction of a new shop yard enclosure, and conversion of the existing band room into a new library.

### Twining Scope of Service

Twining holds on-call contracts with Anaheim UHSD for both geotechnical soils inspections as well as materials testing. This project, which falls under both contracts, required Twining to provide geotechnical observation and inspection as well as materials testing and inspection. Our scope of work included the testing and inspection of soils, structural steel/bolting, reinforcing concrete, and masonry. All work was performed in accordance with DSA standards.

# CITY USD

## Indian Springs Performing Arts Center

### Relevance

- » Subsurface investigation and laboratory testing
  - » Geotechnical Engineering During Construction
- » Materials Testing
- » Special Inspection



### Owner Name

- » San Bernardino City Unified School District

### Location

- » San Bernardino, California

### Owner Contact

- » Steve Massetti
- » Bond Program Manager
- » 956 West 9th Street San Bernardino, CA 92411
- » Office: 310.923.3216

### Contract Type

- » Time and Materials

### Contract Amount

- » \$476,357

### Start Date

- » 04.26.2015

### Completion Date

- » 09.13.2018

### Project Description

This project included the construction of a new performing arts center located at Indian Springs HS. The Center features seating for over 500 patrons, as well as an orchestra pit, scene shop, green room, and dressing rooms. The entrance to the theatre includes a ticketing booth, as well as a gallery that features student art work.

### Twining Scope of Service

Tasks performed by Twining's team included reviewing background information and site reconnaissance; coordinating and performing field exploration, performing percolation testing; performing geotechnical laboratory testing; conducting engineering analyses; and preparing the final geotechnical report.

Twining's Geotechnical Engineer of Record provided recommendations that were incorporated into the design and that are to be implemented during the construction phase of this project.

Twining continued on this project during the construction phase to provide materials testing and inspection services, as well as maintaining the role of Geotechnical Engineer of Record. Our scope of work included providing materials testing and inspection of soil, concrete, masonry, and structural steel, in compliance with DSA regulations and the project's plans and specifications.

### Cost Breakdown

#### Technical Analysis:

\$12,240

#### Design & Implementation:

\$46,826.50

#### Project Management:

\$30,097.50

#### Monitoring:

\$452,326.75

#### Training:

Not Applicable

#### Educational Programs:

Not Applicable

#### Maintenance:

Not Applicable

#### Budgeting:

Not Applicable



## SECTION 6

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Legal Issues

# LEGAL ISSUES

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## **3.6.1.1. Pending Legal Action**

Twining has no pending legal action against it or any employee of the firm alleging violations of the law in connection with an offering of municipal securities in a California transaction.

## **3.6.1.2. Settlements**

Twining has not ever been a party to any settlements or judgments against the firm for violations of the law in connection with an offering of municipal securities in a California transaction.

## **3.6.1.3. Judgments, Settlements, or Arbitrations**

Twining has not be a party to any judgment, settlement, or arbitration award valued at \$5,000 or greater relating to a civil action judgment, settlement, arbitration award, or administrative action for any individual licensee.



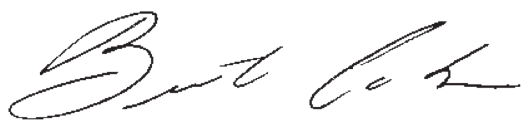
# SECTION 7

## Other Forms

## ATTACHMENT B

**CERTIFICATION – REQUEST FOR QUALIFICATIONS**

I certify that I have read and received a complete set of documents regarding the attached **Request for Qualifications (RFQ) # 111-21 – SPECIAL INSPECTION SERVICES** and the instructions for submitting an RFQ. I further certify that I must submit three (3) proposal copies, plus a complete copy on flash drive, of the firm's Proposal in response to this request and that I am authorized to commit the firm to the proposal submitted.


**Signature**

Chief Operating Officer

**Title**

18011 Sky Park Circle, Suite J

**Address**

949.553.0370

**Telephone**

May 19, 2021

**Date**

Benito Caban, RCE 73220

**Typed or Printed Name**

Twining Consulting, Inc.

**Company**

Irvine, CA 92614

**Address**

949.553.0371

**Fax**

If you are bidding as a corporation,  
please provide your corporate seal  
here:



## ATTACHMENT C

## **STATEMENT OF EXPERIENCE AND FINANCIAL CONDITION**

Company Name: Twining Consulting, Inc.

(Check One): X Corporation      Partnership      Sole Proprietorship

**Address:** 18011 Sky Park Circle, Suite J  
Irvine CA 92614

Telephone/FAX#: 949.553.0370 / 949.553.0371

Date and State of Formation/Incorporation: 08/19/1998, California

Is the company authorized to do business in California? Yes

Basis of Authorization:        X   California Corporation             California Business License  
           California Engineering License             Other (specify)

Identify the California office to be used for this contract if organization is located/headquartered outside of California:

**Address:** 18011 Sky Park Circle, Suite J  
Irvine CA 92614

## FINANCIAL INFORMATION

State the company's California and total revenues for 2017, 2018, 2019:

	<u>2017</u>	<u>2018</u>	<u>2019</u>
California:	\$14.8 Million	\$15.9 Million	\$16.8 Million
Total:	\$14.8 Million	\$15.9 Million	\$16.8 Million

Identify the largest project, in dollars, which your company has initiated or completed within the past five (5) years:

The (W)rapper office tower project, \$6 million

## ATTACHMENT D

**ANSWER THE FOLLOWING QUESTIONS**

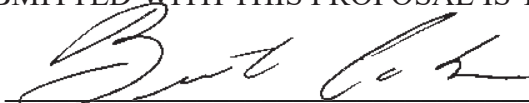
1. Is the company or its owners connected with other companies as a subsidiary, parent, affiliate, or holding company? ☐ Yes ☒ No If yes, explain on a separate, signed sheet.
2. Does the company have an ongoing relationship or affiliation with an equipment manufacturer? ☐ Yes ☒ No If yes, explain on a separate, signed sheet.
3. Has the company (or any owner) ever defaulted on a contract forcing a surety to suffer a loss? ☐ Yes ☒ No If yes, explain on a separate, signed sheet.
4. In the past five (5) years, has the company had any project with disputed amounts more than \$50,000 or a project which was terminated by the owner, owner's representative or other contracting party and which required completion by another party? ☐ Yes ☒ No  
If yes, explain on a separate, signed sheet. State the project name, location, owner/contact person, telephone number, contract value, disputed amount, date and reason for termination/dispute.
5. Has the company, an affiliate company, or any owner ever declared bankruptcy or been in receivership? ☐ Yes ☒ No If yes, explain on a separate, signed sheet.
6. Has the company ever had an arbitration on contracts in the past five (5) years? ☐ Yes ☒ No If yes, explain on a separate, signed sheet. State the project name, location, owner/contact person, telephone number, contract value, disputed amount, a brief description and final resolution.
7. Does the company have any outstanding liens or stop notices for labor and/or materials filed against any contracts which have been done or are being done by the company? ☐ Yes ☒ No If yes, explain on a separate, signed sheet. State the project name, location, owner/contact person, telephone number, amount of dispute, and brief description of the situation.

THE UNDERSIGNED DECLARES UNDER PENALTY OF PERJURY THAT ALL OF THE INFORMATION SUBMITTED WITH THIS PROPOSAL IS TRUE AND CORRECT.

SIGNATURE:

NAME:

TITLE:



Benito Caban, RCE 73220

Chief Operating Officer

## ATTACHMENT F

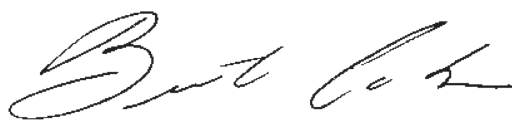
## NEWPORT MESA UNIFIED SCHOOL DISTRICT

REQUEST FOR PROPOSALS AND STATEMENT OF QUALIFICATIONS FOR  
SPECIAL INSPECTION SERVICES

## STATEMENT OF NON-CONFLICT OF INTEREST

The undersigned, on behalf of the consulting firm set forth below (the “Consultant”), does hereby certify and warrant that, if selected, the Consultant while performing the consulting services required by the Request for Qualification, shall do so as an independent contractor and not as an officer, agent or employee of the Newport Mesa Unified School District (“the District”). The undersigned further certifies and warrants that: (1) no officer or agent of the Consultant has been an employee, officer or agent of the District within the past two (2) years; (2) the Consultant has not been a source of income to pay any employee or officer of the District within the past twelve (12) months; (3) no officer, employee or agent of the District has exercised any executive, supervisory or other similar functions in connection with the Consultant Agreement or shall become directly or indirectly interested financially in the Consultant Agreement; and (4) the Consultant shall receive no compensation and shall repay the District for any compensation received by the Consultant under the Consultant Agreement should the Consultant aid, abet or knowingly participate in violation of this statement.

Signature



Printed Name

Benito Caban, RCE 73220

Title

Chief Operating Officer

Date

May 19, 2021

## ATTACHMENT G

## FIRM PROPOSAL / OFFER FORM

This Proposal/Offer Form must be duly executed and submitted with any proposal/offer to NMUSD.

The Offeror hereby agrees that its proposal/offer is subject to all RFQ # 111-21 provisions, terms and conditions, attachments, exhibits, amendments and other applicable materials which are attached or incorporated by reference. Offeror hereby agrees to promptly enter into an agreement in substantial accordance with such RFQ provisions, terms and conditions, and secure a performance bond within five (5) days of the Districts intent to award the contract.

The Offeror hereby agrees that its attached proposal/offer of which this is part, is a firm and irrevocable offer and valid for acceptance by NMUSD for the period sixty (60) days after closing. The Offeror hereby agrees that if its proposal/offer is accepted by NMUSD that it shall provide all of the services in accordance with the RFQ, as it may be amended.

Name of Person Duly Authorized to Execute this Proposal/Offer: Benito Caban, RCE 73220

Duly Authorized Signature: 

Title: Chief Operating Officer

Date of this Proposal/Offer: May 19, 2021

Offeror Name: Twining Consulting, Inc.

Offeror Address: 18011 Sky Park Circle, Suite J

Irvine CA 92614

Offeror Telephone: 949.553.0370

Offeror Email: bcaban@twiningconsulting.com

**ATTACHMENT H**

NEWPORT MESA UNIFIED  
SCHOOL DISTRICT  
2985 Bear St., Bldg. A  
Costa Mesa, California 92626  
(714) 424-5063

**DSA Inspection Services**  
**RFQ: # 124-21**

**NONCOLLUSION**  
**DECLARATION**  
**Public Contract Code § 7106**

TO BE EXECUTED BY SUBMITTER AND SUBMITTED WITH RFQ

The undersigned declares:

I am the Twining Consulting, Inc. **[PRINT YOUR TITLE]**

of Chief Operating Officer **[PRINT FIRM NAME]**,

The party making the foregoing Contract.

The RFQ is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The RFQ is genuine and not collusive or sham. The submitter has not directly or indirectly induced or solicited any other submitter to put in a false or sham RFQ. The submitter has not directly or indirectly colluded, conspired, connived, or agreed with any submitter or anyone else to put in a sham RFQ, or to refrain from submitting. The submitter has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the RFQ price of the submitter or any other submitter, or to fix any overhead, profit, or cost element of the RFQ price, or of that of any other submitter. All statements contained in the RFQ are true. The submitter has not, directly or indirectly, submitted his or her RFQ price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, RFQ depository, or to any member or agent thereof, to effectuate a collusive or sham RFQ, and has not paid, and will not pay, any person or entity for such purpose.

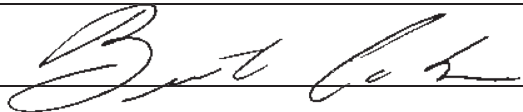
Any person executing this declaration on behalf of a submitter that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the submitter.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on the following date:

Date: May 19, 2021

Proper Name of Submitter: Twining Consulting, Inc.

City, State: Irvine, CA

Signature: 

Print Name: Benito Caban, RCE 73220

Title: Chief Operating Officer





## Schedule of Fees 2021-2022

### Prevailing Wage

NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

Personnel Rates: Per Hour Unless Otherwise Noted

Task Code	Engineering and Consulting Personnel	Rate
10026	Senior Principal Advisor/Consultant	\$ 290.00
10001	Principal Engineer/Geologist	\$ 190.00
10017	Metallurgical Engineer	\$ 320.00
70000	Registered Geotechnical Engineer	\$ 185.00
10010	Technical Advisor	\$ 195.00
10011	Material Scientist, Welding/NDT Consultant	\$ 210.00
70003	Registered Geologist/Certified Engineering Geologist	\$ 195.00
10003	Senior Engineer/Geologist	\$ 180.00
10009	Registered Civil Engineer	\$ 175.00
60003	Roofing/Waterproofing Consultant	\$ 200.00
10013	Project Engineer/Manager	\$ 150.00
30000	Quality Control Manager	\$ 145.00
10005	Senior Staff Engineer/Geologist	\$ 105.00
10007	Staff Engineer/Geologist	\$ 100.00
10015	Quality Control Administrator	\$ 105.00
10019	Metallurgical Technician	\$ 115.00
90001	CADD Operator/Draftsperson	\$ 95.00
70107	Field Supervisor	\$ 99.00
91030	Safety Supervisor	\$ 135.00
20000	Laboratory Manager	\$ 120.00
98000	Laboratory Technician	\$ 95.00
90005	Expert Witness Testimony	\$ 550.00
91010	Qualified SWPPP Developer	\$ 160.00
91000	Qualified SWPPP Practitioner	\$ 150.00
30001	Vibration Engineer	\$ 180.00

Task Code	Field Inspection Personnel	Rate
10101	Concrete/Reinforced Steel Inspector	\$ 98.00
10103	Prestressed/Post Tensioned Inspector	\$ 98.00
10105	Concrete ICC Inspector	\$ 98.00
10109	Drilled-In-Anchors Inspector	\$ 98.00
10111	Gunite/Shotcrete Inspector	\$ 98.00
10113	Masonry Inspector	\$ 98.00
10201	Structural Steel/Welding Inspector	\$ 98.00
10203	AWS Certified Welding Inspector	\$ 98.00
10207	Fireproofing Inspector	\$ 98.00
10501	Lead Inspector	\$ 99.00
10115	Firestop Special Inspector - IFC Premier	\$ 125.00
10117	Firestop Special Inspector - IQP	\$ 135.00
70109	L.A. Deputy Grading Inspector	\$ 105.00
75001	Asphalt Field and Plant Inspector/Technician	\$ 98.00
70103	Pile Driving Inspector	\$ 98.00
70101	Soils Technician	\$ 98.00
10107	Concrete Quality Control (ACI/Caltrans Technician)	\$ 98.00
10122	Wood Framing Inspector	\$ 98.00
60001	Roofing/Waterproofing Inspector	\$ 125.00
10515	Mechanical Inspector	\$ 125.00
10519	Electrical Inspector	\$ 125.00
10521	Plumbing Inspector	\$ 125.00
10523	Building Inspector	\$ 125.00
30002	Vibration Monitoring Technician	\$ 125.00
50003	Field Engineering Technician	\$ 125.00

Task Code	Shop Inspection Personnel	Rate
10301	Structural Steel Fabrication Inspector	\$ 99.00
10309	Batch Plant Quality Control Technician/Inspector	\$ 99.00
10325	Glue-Laminated Fabrication Inspector	Quotation
10328	Pre-Cast Concrete/Pipe Fabrication Inspector	\$ 118.00

Task Code	Nondestructive Testing Personnel	Rate
10401	NDE Ultrasonic Testing Technician	\$ 99.00
10403	NDE Magnetic Particle Testing Technician	\$ 99.00
10405	NDE Dye Penetrant Testing Technician	Quotation
10305	Combination NDE Technician/Welding Inspector	\$ 120.00
10409	Radiographic Testing (crew of 2)	\$ 325.00
10020	NDE Engineer	\$ 190.00

Task Code	Equipment Usage (Daily Unless Otherwise Noted)	Rate
95318	Skidmore	\$ 40.00
95309	Torque Wrench, Small	\$ 15.00
95312	Torque Wrench, Large	\$ 25.00
95315	Torque Multiplier	\$ 40.00
95321	Air Meter	\$ 20.00
95324	Brass Mold	\$ 20.00
95343	Nuclear Gauge (Per Hour)	\$ 10.00
95333	Pull Test Equipment	\$ 60.00
95348	Concrete/Asphalt Coring Equipment	\$ 600.00
95327	Pachometer	\$ 55.00
95336	Floor Flatness (Dipstick)	\$ 50.00
95330	Schmidt Hammer	\$ 30.00
95341	Vapor Emission Test Kits	\$ 30.00
95342	Relative Humidity Probe	\$ 60.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	\$ 350.00
95351	Fireproofing Adhesion/Cohesion (Per Test)	\$ 35.00
95300	A Scan Ultrasonic Equipment and Consumables	\$ 75.00
95303	Magnetic Particle Equipment and Consumables	\$ 40.00
95306	Liquid Penetrant Consumables	\$ 35.00
95307	Phased Array Ultrasonic Equipment (Per Hour)	\$ 60.00
95347	Ground Penetrating Radar	\$ 300.00
95345	Impact Echo	\$ 350.00
95362	Ultrasonic Tomography	\$ 450.00
95349	Inertial Profiler (Per Hour)	Quotation
95357	Project Dedicated Vehicle	\$ 110.00
95364	Roller Compacted Concrete Vibrating Hammer/Tampling Plate	\$ 70.00
95367	Half-cell Potential Equipment Set	\$ 350.00
95368	Concrete Electrical Resistivity Meter	\$ 160.00
95369	Field Hardness (Steel)	\$ 100.00
95370	Coating Thickness Gauge	\$ 100.00
95373	Wood Curing Box (Per Box)	\$ 500.00
95371	Temperature Control Curing Box (Per Month)	\$ 450.00
95372	Temperature Matching Curing Box (Per Month)	\$ 520.00

Task Code	Specimen Pick-Up	Rate
20102	Standard Sample: Concrete Cylinders (Each)	\$ 20.00
20101	Standard Sample: Mortar/Grout Cubes and Cores, Fireproofing, Rebar, and Epoxy Prisms (Each)	\$ 20.00
20103/	Oversize Sample: Masonry Prisms, Shotcrete Panels, Flexural Beams (Each)	\$ 50.00
20104	Technician for Specimen Pick-Up Not Listed Above (Per Hour, 2-Hour Minimum)	\$ 100.00
20107	Technician for Specimen Pick-Up Before 5:00 a.m. or After 5:00 p.m. Monday thru Friday, or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	\$ 120.00

Task Code	Jobsite Trailer, Mobile or On-site Laboratory	Rate
95360	Mobile laboratory for rapid strength concrete (per shift not exceeding 12 hours) All others by quotation	\$ 500.00

Task Code	Concrete Tests (Field Made Specimens)	Rate
20201	6" x 12" Cylinder: Compression Strength (ASTM C39)	\$ 30.00
20202	4" x 8" Cylinder: Compression Strength (ASTM C39)	\$ 30.00
20203	Density of Structural Lightweight Concrete Equilibrium or Oven Dry Method (ASTM C567)	\$ 80.00
20205	Core Compression including Trimming (ASTM C42)	\$ 65.00
20207	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523)	\$ 90.00
20209	Splitting Tensile Strength (ASTM C496)	\$ 90.00
20211	Modulus of Elasticity Test (ASTM C469)	\$ 260.00
80003	Rapid Chloride Permeability Test: Cylinders or Cores (ASTM C1202)	\$ 500.00
80006	Density, Absorption, and Voids in Hardened Concrete (ASTM C666)	\$ 500.00

Task Code	Concrete Tests (Field Made Specimens), Continued	Rate
40005	Flexural Toughness (ASTM C1609, Formerly ASTM C1018)	\$ 800.00
40006	Double Punch Strength of Fiber Reinforced Concrete	\$ 500.00
40009	Coefficient of Thermal Expansion of Concrete (CRD 39, AASHTO T336)	\$ 550.00

Task Code	Concrete Specimen Preparation	Rate
20151	Sawing of Specimens (Each)	\$ 35.00
20157	Coring of Specimens in Lab (Each)	\$ 35.00
20159	Grinding of Concrete Below 6000 psi Strength (Each)	\$ 50.00
20160	Grinding of Concrete 6000 psi Strength and Above (Each)	\$ 75.00

Task Code	Laboratory Trial Batch: Concrete, Cement and Mortar	Rate
30217	Compression Test Cylinders Made and Tested in Laboratory (ASTM C192, C35)	\$ 55.00
30219	6" x 6" x 18" Flexural Beams Made and Tested in Laboratory (ASTM C192, C78)	\$ 95.00
30223	Splitting Tensile Strength Cylinders Made and Tested in Laboratory (ASTM C192, C496)	\$ 110.00
30225	Modulus of Elasticity Test Cylinders Made and Tested in Laboratory (ASTM C192, C469)	\$ 275.00
30227	Density of Structural Lightweight Concrete Made in the Laboratory, Equilibrium or Oven Dry Method (ASTM C567)	\$ 100.00
30201	Laboratory Trial Batch (ASTM C192)	\$ 500.00
30203	Laboratory Trial Batch: Packaged Dry Concrete Including Verification of Slump, Air Content, Plastic Unit Weight, Six Cylinders for Compressive Strength (ASTM C387 and C192)	\$ 950.00
30205	Drying Shrinkage Up to 28 Days: Three 3" x 3" or 4" x 4" Bars, Five Readings up to 28 Dry Days (ASTM C157)	\$ 500.00
30230	Additional Reading, Per Set of Three Bars	\$ 45.00
30231	Storage over Ninety (90) Days, Per Set of Three Bars, Per Month	\$ 30.00
30207	Setting Time Up to 7 Hours (ASTM C403)	\$ 150.00
30209	Bleeding (ASTM C232)	\$ 150.00
30229	Concrete Restrained Expansion (ASTM C878)	\$ 550.00
30211	Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C878)	\$ 500.00
20263	Non-Shrink Grout: Height Change after Final Set (ASTM C1090)	\$ 500.00
20265	Non-Shrink Grout: Height Change at Early Age (ASTM C827)	\$ 800.00
30232	Cracking Resistance, Set of Three Rings, Laboratory Trial Batching, Test Until Cracking or up to 28 Days (ASTM 1581)	\$ 5,000.00
30233	Evaluation of Pre-Packaged Masonry Mortars (ASTM C270)	\$ 1,100.00
30234	Creep (ASTM C512) (One Age of Loading, 12 Months Duration of Testing)	\$ 8,000.00

Task Code	Chemical Analysis and Petrographic Examination of Concrete	Rate
80123	Chemical Analysis for Acid Soluble Chlorides (ASTM C1152) (includes sample prep)	\$ 250.00
80193	Chloride Diffusion Coefficient of Cementitious Mixtures by Bulk Diffusion (ASTM C1556)	\$ 2,500.00
80129	Petrographic Examination of Hardened Concrete, Level II (ASTM 856) (Comprehensive)	
	Each, One Sample	\$ 2,400.00
	Each, Two or More Samples	\$ 2,100.00

Task Code	Physical and Chemical Analysis of Cement	Rate
80195	Physical Testing and Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 1,200.00
80100	Chemical Analysis of Portland Cement per Standard Requirements (ASTM C150)	\$ 650.00
80103	Physical Testing of Portland Cement per Standard Requirements (ASTM C150)	\$ 650.00
80194	Physical Testing of Type K Cement, Mortar Expansion (ASTM C806)	\$ 650.00
80106	Partial Analysis or Specific Physical Tests	Quotation
80110	Sulfates Resistance of Hydraulic Cement (ASTM C1012), 6 months	\$ 2,500.00
80111	Sulfates Resistance of Hydraulic Cement (ASTM C1012), 12 months	\$ 2,700.00

Task Code	Physical and Chemical Analysis of Fly Ash	Rate
80140	Chemical Analysis of Fly Ash per Standard Requirements (ASTM C618)	\$ 650.00
80143	Physical Testing of Fly Ash per Standard Requirements (ASTM C618)	\$ 650.00
80146	Partial Analysis or Specific Physical Tests	Quotation
80147	Chemical Analysis and Physical Testing of Fly Ash per Standard Requirements (ASTM C1618)	\$ 1,200.00

Task Code	Physical Testing of Chemical Admixtures for Concrete	Rate
80196	Qualification of Admixture per ASTM C494	Quotation

Task Code	Soils and Aggregate Tests	Rate
30503	Abrasion: LA Rattler (ASTM C131)	\$ 200.00
30505	Abrasion: LA Rattler (ASTM C535)	\$ 210.00
70301	Atterberg Limits/Plasticity Index (ASTM D4318, CTM 204)	\$ 160.00
70303	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Soil	\$ 550.00
70304	California Bearing Ratio Excluding Maximum Density (ASTM D1883): Cement-Treated Soil	\$ 650.00
70344	Cement-Treated Soil/Base Mix Design: includes three trial cement contents with three unconfined compressive strength specimens per cement content	\$ 3,500.00
70305	Chloride and Sulfate Content (CTM 417, CTM 422)	\$ 175.00
30403	Clay Lumps and Friable Particles (ASTM C142)	\$ 200.00
30321	Cleaness Value: 1" x #4 (CTM 227)	\$ 175.00
30322	Cleaness Value: 1.5" x .75" (CTM 227)	\$ 275.00
70393	Collapse Potential/Index (ASTM D5333)	\$ 225.00
70396	Compressive Strength of Molded Soil-Cement Cylinders (ASTM D1633)	\$ 105.00
70309	Consolidation Test: Full Cycle (ASTM 2435, CTM 219)	\$ 195.00
70311	Consolidation Test: Time Rate per Load Increment (ASTM D2435, CTM 219)	\$ 45.00
70313	Corrosivity Series: Sulfate, Cl, pH, Resistivity (CTM 643, 417, and 422)	\$ 245.00
70315	Crushed/Fractured Particles (ASTM D5821, CTM 205)	\$ 175.00
70317	Direct Shear Test: Remolded and/or Residual (ASTM D3080)	\$ 245.00
70319	Direct Shear Test: Undisturbed - Slow [CD] (ASTM D3080)	\$ 225.00
70321	Direct Shear Test: Undisturbed - Fast [CU] (ASTM D3080)	\$ 195.00
70378	Durability Index: Per Method - A,B,C, or D (ASTM D3744, CTM 229)	\$ 210.00
70325	Expansion Index (ASTM D4829, UBC 18-2)	\$ 170.00
75004	Fine Aggregate Angularity (ASTM C1252, CTM 234, AASHTO T304)	\$ 190.00
30507	Flat and Elongated Particle (ASTM D4791)	\$ 240.00
30508	Flat or Elongated Particle (ASTM D4791)	\$ 210.00
70331	Maximum Density: Methods A/B/C (ASTM D1557, D698, CTM 216)	\$ 195.00
70333	Maximum Density: Check Point (ASTM D1557, D698)	\$ 65.00
70335	Maximum Density: AASHTO C [Modified] (AASHTO T-180)	\$ 195.00
70336	Maximum Index Density: Vibratory Table (ASTM D4253)	\$ 345.00
70337	Moisture Content (ASTM D2216, CTM 226)	\$ 25.00
70339	Moisture and Density: Ring Sample (ASTM D2937)	\$ 30.00
70341	Moisture and Density: Shelby Tube Sample (ASTM D2937)	\$ 40.00
70340	Moisture-Density Relations of Soil-Cement Mixtures Premixed in the Field (ASTM D558)	\$ 275.00
70342	Moisture-Density Relations of Soil-Cement Mixtures Mixed in the Lab (ASTM D558)	\$ 350.00
30401	Organic Impurities (ASTM C40, CTM 213)	\$ 90.00
70343	Permeability (ASTM D5084)	Quotation
80001	Potential Reactivity: Chemical Method (ASTM C289 - Discontinued Method)	\$ 525.00
70394	Potential Reactivity: Mortar Bar Expansion Method, 14-Day Exposure (ASTM C1260)	\$ 825.00
70391	Potential Reactivity: Mortar Bar Expansion Method, 28-Day Exposure (ASTM C1260)	\$ 875.00
70398	Potential Reactivity: Concrete Bar Expansion Method (ASTM C1293), 12 month	\$ 2,700.00
70399	Potential Reactivity: Concrete Bar Expansion Method (ASTM C1293), 24 month	\$ 2,900.00

Task Code	Soils and Aggregate Tests, Continued	Rate
70397	Potential Reactivity of Aggregate Combination, non-standard method; 14-Day Exposure, Mortar (after ASTM C1567)	\$ 950.00
70392	Potential Reactivity of Aggregate Combination, non-standard method; 28-Day Exposure, Mortar (after ASTM C1567)	\$ 1,000.00
70345	R-Value: Soil (ASTM 2844, CTM 301)	\$ 450.00
70347	R-Value: Aggregate Base (ASTM D2844, CTM 301)	\$ 450.00
70349	Sand Equivalent (ASTM D2419, CTM 217)	\$ 170.00
70351	Sieve #200 Wash Only (ASTM D1140, CTM 202)	\$ 100.00
70353	Sieve with Hydrometer: 3/4" Gravel to Clay (ASTM D422, D7928, CTM 203)	\$ 260.00
70355	Sieve with Hydrometer: Sand to Clay (ASTM D422, D7928, CTM 203)	\$ 240.00
70357	Sieve Analysis Including Wash (ASTM C136, CTM 202)	\$ 175.00
70359	Sieve Analysis Without Wash (ASTM C136, CTM 202)	\$ 130.00
70360	Sieve Analysis: Split Sieve (ASTM C136, CTM 202)	\$ 250.00
70361	Sieve Analysis Without Wash: With Cobbles (ASTM C136, CTM 202)	\$ 235.00
70363	Soundness: Sodium or Magnesium Sulfate, 5 Cycles (ASTM C88)	\$ 450.00
70365	Specific Gravity and Absorption: Coarse (ASTM C127, CTM 206)	\$ 100.00
70367	Specific Gravity and Absorption: Fine (ASTM C128, CTM 207)	\$ 165.00
70369	Swell/Settlement Potential: One Dimensional (ASTM D4546)	\$ 150.00
70371	Triaxial	Quotation
70373	Unconfined Compression (ASTM D2166, CTM 221)	\$ 190.00
30317	Unit Weight Per Cubic Foot (ASTM C29, CTM 212)	\$ 125.00
30319	Void in Aggregate with Known Specific Gravity (ASTM C29, CTM 212)	\$ 125.00
30411	Lightweight Particles: Coarse, with Two Solutions (ASTM C123)	\$ 410.00
30412	Lightweight Particles: Fine, with One Solution (ASTM C123)	\$ 205.00

Task Code	Asphalt Concrete Tests	Rate
75031	HMA Mixing and Preparation	\$ 125.00
75032	HMA Mixing and Preparation with Aggregate Treatment	\$ 175.00
75033	Bulk Specific Gravity of Compacted Sample or Core: SSD (ASTM D2726, CTM 308C)	\$ 55.00
75036	Bulk Specific Gravity of Compacted Sample or Core: Paraffin Coated (ASTM D1188 and CTM 308A)	\$ 80.00
75040	Emulsion Residue, Evaporation (ASTM D244)	\$ 160.00
75024	Extraction: % Bitumen (ASTM D6307, CTM 382)	\$ 175.00
75027	Extraction: % Bitumen and Gradation (ASTM D5444, D6307, CTM 202, 382)	\$ 225.00
75028	Extraction: % Bitumen, Correction Factor (ASTM D6307, CTM 382)	\$ 350.00
75030	Chemical Extraction: % Bitumen and Sieve Analysis (ASTM D2172 Method A or B, ASTM D5444)	\$ 250.00
75042	Lab Tested Maximum Density: Hveem, 3 briquettes (ASTM D1561, D1188, CTM 304, 308)	\$ 220.00
75057	Hveem Stabilometer Test, Premixed, 3 briquettes (ASTM D1560, D1561, CTM 304, 366)	\$ 220.00
75048	Lab Tested Maximum Density: Marshall, 3 briquettes (ASTM D6926, D2726)	\$ 210.00
75049	Lab Tested Maximum Density: Marshall 6" Specimen, 3 briquettes (ASTM D5581, D2726)	\$ 215.00
75050	Lab Tested Maximum Density: Superpave Gyratory Compacted Briquette, SSD, 1 briquette (ASTM D6925, D2726)	\$ 80.00
75052	Lab Tested Maximum Density: Superpave Gyratory Compacted Briquette, Paraffin, 1 briquette (ASTM D1188, D6925)	\$ 90.00
75051	Maximum Theoretical Specific Gravity [RICE] (ASTM D2041, CTM 309)	\$ 160.00
75066	Marshall Stability and Flow, Cored Sample, each (ASTM D6927)	\$ 80.00
75069	Marshall Stability and Flow, Premixed, 3 briquettes (ASTM D6926, D6927)	\$ 230.00
75106	Marshall Stability and Flow, Gyratory Compacted Specimen Pre-Mixed, 3 briquettes (ASTM D5581, D6925)	\$ 230.00
75107	Marshall Stability and Flow 6" Specimen, Premixed, 3 briquettes (ASTM D5581)	\$ 230.00
75063	Moisture Content (CTM 370)	\$ 85.00

Task Code	Asphalt Concrete Tests, Continued	Rate
75005	Wet Track Abrasion Test (ASTM D3910)	\$ 165.00
75093	Hveem Mix Design (Excluding Aggregate Quality Tests)	\$ 3,400.00
75096	Hveem Mix Design, with RAP (Excluding Aggregate Quality Tests, RAP Qualification)	\$ 3,800.00
75099	Hveem Mix Design, with Lime (Excluding Aggregate Quality Tests)	\$ 3,800.00
75094	Hveem Mix Design Caltrans Untreated Mix (Including Aggregate Quality Tests)	\$ 4,650.00
75095	Hveem Mix Design Caltrans Lime Treated Mix (Including Aggregate Quality Tests)	\$ 4,650.00
75084	Marshall Mix Design (Excluding Aggregate Quality Tests)	\$ 3,400.00
75087	Marshall Mix Design with RAP (Excluding Aggregate Quality Tests)	\$ 3,800.00
75090	Marshall Mix Design with Lime (Excluding Aggregate Quality Tests)	\$ 3,800.00
75083	Open Grade Asphalt Concrete Mix Design (ASTM D7064, CTM 368)	\$ 1,700.00
75109	Superpave Mix Design (Excluding Aggregate Quality Tests)	\$ 4,900.00
75113	Superpave Mix Design, with RAP (Excluding Aggregate Quality Tests)	\$ 6,500.00
75075	Effect of Moisture on Asphalt Paving Mixtures, Pre-Mixed (ASTM D4867, AASHTO T283)	\$ 1,000.00
75111	Hamburg Wheel Track Test, 20,000 passes, 4 briquettes (AASHTO T324)	\$ 1,100.00
75039	Raveling Test of Cold Mixed Emulsified Asphalt (ASTM D7196)	\$ 200.00
75067	Marshall Stability, wet set, 3 replicates (AASHTO T245)	\$ 350.00
75068	Marshall Stability, dry set, 3 replicates (AASHTO T245)	\$ 300.00
75070	Cold Recycled Asphalt Mix Design: 2 gradings each, 3 emulsion content (Caltrans LP-8)	\$ 10,500.00
75114	Superpave Mix Design, with Rubber (Excluding Aggregate Quality Tests)	\$ 6,600.00
75115	Superpave Mix Design, with Additives (Excluding Aggregate Quality Tests)	\$ 5,790.00

Task Code	Brick Masonry Tests, ASTM C67	Rate
20301	Modulus of Rupture: Flexural	\$ 90.00
20303	Compression Strength	\$ 55.00
20305	Absorption: 5 Hour or 24 Hour	\$ 60.00
20307	Absorption (Boil): 1, 2 or 5 Hours	\$ 90.00
20309	Initial Rate of Absorption	\$ 50.00
20311	Efflorescence	\$ 70.00
20313	Cores: Compression	\$ 65.00
20315	Shear Test on Brick Cores: 2 Faces	\$ 90.00

Task Code	Concrete Block, ASTM C140	Rate
20321	Compression	\$ 85.00
20323	Absorption/Moisture Content/Oven Dry Density	\$ 85.00
20327	Linear Shrinkage (ASTM C426)	\$ 225.00
20335	Web and Face Shell Measurements	\$ 45.00
20329	Tension Test	\$ 155.00
20331	Core Compression	\$ 65.00
20333	Shear Test of Masonry Cores: 2 Faces	\$ 90.00
20339	Efflorescence Tests	\$ 70.00

Task Code	Masonry Prisms, ASTM C1314	Rate
20341	Compression Test: Composite Masonry Prisms Up To 8" x 16"	\$ 190.00
20343	Compression Test: Composite Masonry Prisms Larger Than 8" x 16"	\$ 250.00
20346	Prism Cord Modulus of Elasticity	\$ 540.00
20347	Prism Cord Modulus of Elasticity with Transverse Strain (for double-wythe specimen)	\$ 665.00

Task Code	Mortar and Grout	Rate
20351	Compression: 2" x 4" Mortar Cylinders (ASTM C780)	\$ 50.00
20353	Compression: 3" x 3" x 6" Grout Prisms, Includes Trimming (ASTM C1019)	\$ 50.00
20355	Compression: 2" Cubes (ASTM C109)	\$ 50.00
20357	Compression: Cores (ASTM C42)	\$ 70.00

## 3.7. OTHER FORMS

Task Code	Masonry Specimen Preparation	Rate
20155	Cutting of Cubes or Prisms	\$ 65.00

Task Code	Fireproofing Tests	Rate
20401	Oven Dry Density (ASTM E605)	\$ 75.00

Task Code	Gunite and Shotcrete Tests	Rate
20361	Core Compression Including Trimming (ASTM C42)	\$ 70.00
20365	Compression: Cubes (Includes Saw Cutting)	\$ 85.00

Task Code	Concrete Roof Fill: Gypsum, Vermiculite, Perlite, Lightweight Insulating Concrete, Etc.	Rate
20371	Compression Test (ASTM C495 and C472)	\$ 55.00
20373	Air Dry Density (ASTM C472)	\$ 40.00
20379	Oven Dry Density (ASTM C495)	\$ 65.00

Task Code	Reinforcing Steel, ASTM A615, A706	Rate
20501	Tensile Test: # 11 or Smaller	\$ 60.00
20503	Bend Test: # 11 or Smaller	\$ 60.00
20504	Bend Test #14 or #18	\$ 350.00
20505	Tensile Test: # 14	\$ 240.00
20507	Tensile Test: # 18	\$ 340.00

Task Code	Reinforcing Steel - Welded or Coupled Specimens	Rate
20521	Tensile Test: Welded/Coupled #11 and Smaller	\$ 90.00
20523	Tensile Test: Welded/Coupled #14	\$ 250.00
20525	Tensile Test: Welded/Coupled #18	\$ 375.00
20529	Weld: Macroetch	\$ 75.00
20531	Slippage Test - Caltrans (CTM 670)	\$ 200.00
20532	Tensile Test: Welded Hoops #11 and Smaller	\$ 145.00

Task Code	Metal and Steel Testing	Rate
20601	Tensile Strength: Up to 100K Pounds (Each)	\$ 65.00
20603	Tensile Strength: Up to 200K Pounds (Each)	\$ 75.00
20605	Tensile Strength: Up to 300K Pounds (Each)	\$ 90.00
20607	Tensile Strength: Up to 400K Pounds (Each)	\$ 140.00
20609	Tensile Strength: 400K to 600K Pounds (Each)	\$ 350.00
20611	Tensile Strength: Stress-Strain Percent Offset	\$ 175.00
20545	Weld: Macroetch	\$ 75.00
20547	Weld: Fracture	\$ 40.00
20615	Bend Test	\$ 60.00
20617	Flattening Test	\$ 70.00
20619	Hardness Test (ASTM E18)	\$ 80.00
20630	Bolt: Axial Tensile Test (Up to 7/8" diameter)	\$ 60.00
20631	Bolt: Wedge Tensile Test (Up to 7/8" diameter)	\$ 80.00
20632	Bolt: Axial Tensile Test (Greater than 7/8" up to 1" diameter)	\$ 70.00
20633	Bolt: Wedge Tensile Test (Greater than 7/8" up to 1" diameter)	\$ 90.00
20634	Bolt: Axial Tensile Test (Greater than 1" diameter)	Quotation
20635	Bolt: Wedge Tensile Test (Greater than 1" diameter)	Quotation
20636	Bolt: Proof Load Test (Up to 7/8")	\$ 75.00
20637	Bolt: Proof Load Test (Greater than 7/8" up to 1" diameter)	\$ 95.00
20638	Bolt: Proof Load Test (Greater than 1")	Quotation
20639	Nut: Proof Load Test (Up to 7/8")	\$ 55.00
20640	Nut: Proof Load Test (Greater than 7/8" up to 1" diameter)	\$ 75.00
20641	Nut: Proof Load Test (Greater than 1")	Quotation

Task Code	Chemical Testing of Metal and Steel	Rate
80170	Steel Chemical Analysis	\$ 160.00
80173	Weight of Galvanized Coating (ASTM A90)	\$ 75.00
80176	Epoxy Coating Thickness	\$ 80.00

Task Code	Machining and Preparation of Tensile and Bend Sample: Carbon Steel	Rate
20751	Machinist: Initial Preparation from Mock-up, Etc. (Per Hour)	\$ 100.00
20753	Sawcut to Overall Width (Per 0.5" Thickness or Fraction Thereof)	\$ 50.00
20755	Machine to Test Configuration: Milled Specimens	\$ 55.00
20757	Machine to Test Configuration: Turned Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 70.00
20759	Prepare Subsize Specimens (Per 0.5" Thickness or Fraction Thereof)	\$ 135.00
		\$ 85.00

Task Code	Charpy Impact	Rate
20621	Charpy Impact Ambient Temperature	\$ 120.00
20623	Charpy Impact Reduced Temperature	\$ 120.00

Task Code	Machining of Charpy Samples: Carbon Steel	Rate
20780	Cutting and Milling (Per 0.5" or Fraction Thereof)	\$ 80.00
20783	Final Machining to Sample Configuration	\$ 90.00

Task Code	Prestressing Wires and Tendons, (ASTM A416)	Rate
20701	Stress-Strain Analysis: Wire or Strands (Including Chart and Percent Offset)	\$ 190.00
20703	Tensile Test Only	\$ 140.00
20705	Tendons	Quotation

Task Code	Polymer Matrix Composite Materials (Fiberwrap)	Rate
20706	Tensile Strength – Set of 5 Specimens/batch/direction (ASTM D3039)	\$ 1,400.00
20707	Tensile Strength – Additional Specimens (ASTM D3039)	\$ 250.00
20708	Heating Chamber Time – Per 24 hr period	\$ 95.00

Task Code	Calibration Services and Universal Machine Usage	Rate
20801	Calibration/Verification Services	Quotation
20803	Universal Test Machine Usage (Per Hour)	\$ 350.00

Ceramic Tile Testing Division	Rate
The Ceramic Tile Institute of America (CTIOA) and Twining worked together to advance and develop technology designed to enhance the quality of materials and workmanship in the ceramic tile industry. A separate schedule of fees for these services is available upon request.	

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

## General Conditions

NOTE: A minimum of 24 hours notice is required for testing and inspection services.  
NOTE: Rates will be adjusted annually each July 1st to reflect increased costs.

### Prevailing Wage Rate & AB5 Determination

This project may not be subject to the Prevailing Wage laws in California. Assembly Bill 5 (AB-5) is a new California Law that governs certain employers and their Independent Contractors. Twining Consulting field inspection personnel are Independent Contractors and not considered employees of Twining Consulting. Should it be determined by the State of California that licensed Special/Deputy Inspectors are not exempt from the Employer/C waiver, it will be necessary to increase the quoted hourly rates by \$30.00/hour

### Administrative Fees

All administrative costs including report distribution and Twining ConstructionHive system are billed at the following percentage of the monthly invoice total: 4%  
Note that hard copies of reports will be sent only to governing jurisdictions that mandate them. All other parties will receive reports electronically. The administrative fee above will receive reports electronically. The administrative fee above will be increased by 1% if additional hard copies of reports are requested.

### Minimum Charges (Inspection and Technician Personnel Only - Other Personnel Charged on Portal to Portal Basis)

2-Hour Minimum: Inspector arrives at jobsite, no work to perform.  
**2-Hour Minimum: Inspector arrives at jobsite, hours paid for hours worked thereafter.**

### Regular Time

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

### Time and One-Half (All Types of Inspection)

All shifts will be billed based on the time and date of their start. Any increment past 8 hours through 12 hours worked Monday through Friday and the first 12 hours on Saturday. Time and one-half will also be charged for the first four hours before 5:00 a.m. and after 5:00 p.m.

### Double Time (All Types of Inspection)

All shifts will be billed based on the time and date of their start. After the first 12 hours worked Monday through Saturday, all day Sunday, and holidays. After the first four hours worked before 5:00 a.m. and after 5:00 p.m. Holidays are New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving, the day after Thanksgiving and Christmas Day.

### Meal Period

When personnel are required by their duties to work more than five consecutive hours without a one-half hour uninterrupted meal period, one half hour at double time rate will be charged in addition to any applicable overtime for actual hours worked.

### Shift Differential (Applies to Regularly Scheduled Shifts Only)

A \$1.00 per hour shift differential premium will be charged for all inspection hours that fall outside of the 5:00 a.m. to 5:00 p.m. time period. Twining will require 48-hour notice along with the General Contractors approved shift letter prior to beginning a shift that will include hours falling outside this time period. Should this notice not be provided, all work performed on that shift will be billed at the applicable overtime or double time rate.

If three shifts per day are required, the first shift will be billed at the standard rate. The second shift shall be billed in accordance with the previous paragraph. The third shift shall be billed at 8 hours for the first 6 1/2 hours worked and appropriate overtime or double time for all hours thereafter.

### Travel Time and Mileage

For projects outside a 50-mile radius from the nearest Twining facility, \$0.70 per excess mile to and from the project will be charged for inspectors and technicians. Other than small tools, whenever project related equipment is required to be transported to and from the project site, time and mileage for inspectors and field technicians will be billed on a portal to portal basis. For all projects, \$0.70 per mile rate and applicable travel time will be charged portal to portal for engineers, consultants, supervisors, and laboratory technicians from the laboratory to the project site and return.

For work locations located 100 miles or more from Twining, travel time will be charged at the relevant rate for inspectors and technicians in addition to a subsistence allowance.

### Weekend Sample Pick-Ups

In order to be in strict conformance with testing standards, it may be required that weekend pick-ups be performed (e.g. concrete specimens cast on Friday must be picked up on weekend in order to be in conformance with ASTM C31 requiring specimens to be moved to their final curing location within 48 hours of casting.) Applicable charges for weekend work will apply when this is required. Should these charges not be authorized, Twining will not be liable for any negative consequences.

### Reimbursable Expenses

Parking, air fare, car rental, food and lodging, etc. will be charged at cost plus 20% per processed invoice, unless provided by client.

### Project Specific Documents

Costs presented assume that client will provide project specific documents (plans, specifications, submittals, RFIs, etc.) for all inspection personnel. Should project specific documents be provided electronically through a "for fee" service, the client will be responsible for providing access and paying any fees for the service.

### Project Site Facilities

Prices quoted assume that initial curing facilities for test samples that comply with relevant test standards and project requirements are provided by others. In addition, prices quoted assume that work/desk space for inspection staff are provided by others. Additional costs will apply should Twining be required to provide such facilities.

### Subsistence

Subsistence on remote jobs will be charged per quotation.

### Laboratory Testing Hours

Please note that laboratory testing will be billed on an hourly basis for non-standard tests. If testing is required to be performed on Saturdays, Sundays, holidays, or before 5:30 a.m. or after 4:00 p.m. on weekdays, an additional hourly charge with a minimum of one hour will be applied for the laboratory technician. 1.5 x regular test rate will be charged for rush testing.

### Charges for Subcontracted Services

Material sent to outside laboratory for testing:	Cost plus 20%
Material sent to outside fabricator or machine shop:	Cost plus 20%
Glu-Lam beam inspection:	Cost plus 20%
Other subcontractors:	Cost plus 20%
Project exclusive equipment purchase:	Cost plus 20%

### General Conditions, continued

#### Limit of Liability

Client agrees to limit Twining's aggregate liability to all entities for alleged or actual errors and omissions in the performance of its professional services under this agreement to \$50,000.00 or the fees actually paid to Twining, whichever amount is greater. Higher limits may be available by quotation.

#### Certified Payroll

Certified payroll will be provided, upon request, at an additional charge of \$150.00/month. Fee applies to every month that certified payroll must be submitted regardless of whether or not services were provided for any given month.

#### Final Reports Required by Jurisdiction

If a final report or affidavit is required, we must first review all inspection and testing reports and clear up any unresolved issues on these reports. These issues will typically require approval by the engineer or architect of record. This process can take several weeks or just a day, depending on the number and complexity of the issues. Cost for final reports will be billed hourly.

#### Terms of Payment

Fees charged are for professional and technical services and are due upon presentation. If not paid within 30 days from date of invoice, they are considered past due and the maximum legal finance charge will be added to the unpaid balance.

A 3% fee will be applied for payments processed by credit card.

All invoice errors or necessary corrections shall be brought to the attention of Twining within 15 days of receipt of invoice. Thereafter, customer acknowledges invoices are correct and valid. Twining reserves the right to terminate its services to a customer without notice if all invoices are not current. Upon such termination of services, the entire amount accrued for all services performed shall immediately become due and payable. Customer waives any and all claims against Twining, its subsidiaries, affiliates, servants and agents for termination of work on account of these terms.

In the event of any litigation arising from or related to any agreement to provide services whether verbal or written, the prevailing party shall be entitled to recover from the non-prevailing party all reasonable costs incurred, including staff time, court costs, attorney's fees and all other related expenses in such litigation. Additionally, in the event of a non-adjudicative settlement of litigation between the parties or a resolution of dispute by arbitration, that same process shall determine the prevailing party.

#### Hold Specimens

All held specimens submitted by the client are charged at the same applicable test rate whether tested or not.

#### Specimen Disposal

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

#### Oversize Specimens

An extra charge will be made when test specimens require more than one person to handle because of size or weight.

#### Elevated Work Platforms

In the event an elevated work platform is required to safely complete our inspections, the client must provide safe access, including a trained and certified operator, to Twining inspection and testing personnel.

Thank you for your consideration.



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