

**SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



ITEM: 3.13
(ID # 17228)

MEETING DATE:

Tuesday, October 19, 2021

FROM : FACILITIES MANAGEMENT AND RIVERSIDE COUNTY FIRE DEPARTMENT :

SUBJECT: FACILITIES MANAGEMENT (FM) AND RIVERSIDE COUNTY FIRE DEPARTMENT: Riverside County Fire Department North Shore Station 41 and Lake Tamarisk Station 49 Replacement Project - Award and Approval of Design-Build Agreement with Tilden-Coil Constructors, Inc. and Approval of Waiver for Leadership in Energy and Environmental Design Certification, District 4. [\$8,140,000 - 44% Fire Department Budget-General Fund, 44% DIF Eastern Riverside Co Fire Facility 30504 Fund, and 12% Solar 30300 Fund]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Find that Tilden-Coil Constructors, Inc. (Tilden-Coil) is the responsive and responsible proposer that submitted the best value proposal for design and construction of the Riverside County Fire Department North Shore Station 41 and Lake Tamarisk Station 49 Replacement (Fire North Shore Station 41 and Lake Tamarisk Station 49 Replacement) Project; Approve Addendum 1; waive any minor irregularities in the proposal of Tilden-Coil and award the Design-Build Agreement between the County of Riverside (County) and Tilden-Coil of Riverside, California in the amount of \$8,140,000 for the Project; and authorize the Chair of the Board to execute the Agreement on behalf of the County;
2. Authorize the Director of Facilities Management, or her designee, to administer all necessary agreements in accordance with applicable Board policies; and

Continued on Page 2

ACTION:Policy, CIP



Rose Salgado, Director of Facilities Management 10/5/2021


Bill Weiser, Fire Department Chief 10/6/2021

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Perez, seconded by Supervisor Jeffries and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Spiegel, Washington, Perez and Hewitt
Nays: None
Absent: None
Date: October 19, 2021
xc: FM, Fire

Kecia R. Harper
Clerk of the Board
By: 
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
STATE OF CALIFORNIA**

RECOMMENDED MOTION: That the Board of Supervisors:

3. Waive the Leadership in Energy and Environmental Design (LEED) Certification requirement per Board Policy H-29, for the Fire North Shore Station 41 and Lake Tamarisk Station 49 Replacement Project, due to cost prohibitive construction and life cycle costs in the operation of the fire stations.

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$ 1,100,000	\$ 7,040,000	\$ 8,140,000	\$ 0
NET COUNTY COST	\$ 484,000	\$ 3,097,600	\$ 3,581,600	\$ 0
SOURCE OF FUNDS: Fire Department Budget-General Fund - 44%, DIF Eastern Riverside Co Fire Facility 30504 Fund - 44%, and Solar 30300 Fund - 12% (Previously approved budget)			Budget Adjustment: No	
			For Fiscal Year: 2021/22 - 2022/23	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

On April 27, 2021, Item 3.11, the Board of Supervisors (Board) approved in-principle and preliminary project budget in the amount of \$10,000,000 for the North Shore Station 41 and Lake Tamarisk Station 49 Replacement Project.

On May 14, 2021, FM advertised a Request for Qualifications and Proposals (RFP) to design-build the Fire North Shore Station 41 and Lake Tamarisk Station 49 Replacement Project. The County received statements of qualifications and proposals from five candidates. The proposals submitted were evaluated by a committee comprised of members of the Riverside County Fire Department and FM. A shortlist was developed to identify three candidates which were interviewed. Tilden-Coil was found to have submitted the best value and most advantageous proposal.

While the original intent of the Project was to construct the two fire facilities with modular units to allow for easy expansion, through the course of response to the design-build solicitation it was determined this type of construction would not be the most cost-effective approach, therefore conventional construction will be used. Expansion will still be possible to meet the goals of the Riverside County Fire Department.

Facilities Management recommends the Board approve Addendum 1; award and approve the Design-Build Agreement with Tilden-Coil in the amount of \$8,140,000 to allow Tilden-Coil to immediately initiate the design and pre-construction services; and approve the waiver of LEED certification due to cost prohibitive construction and life cycle costs in the operation of the two

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,
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new fire stations. Upon completion of the design phase, a supplemental guaranteed maximum price design-build agreement will be brought before the Board for consideration.

Impact on Residents and Businesses

The Project will provide the Fire Department facilities that meet their current needs and will allow them to better serve the communities of North Shore and Desert Center.

Additional Fiscal Information

All costs associated with this Board action will be 44% funded with the Fire Department Budget-General Fund, 44% funded with DIF Eastern Riverside County Fire Facility 30504 Fund and 12% with Solar 30300 Fund. Expenditures for FY 2021/22 are estimated at \$1,100,000; and expenditures for FY 2022/23 are estimated at \$7,040,000.

Attachments:

- Design-Build Agreement with Tilden-Coil Constructors, Inc. with Exhibits A-G
- Addendum 1

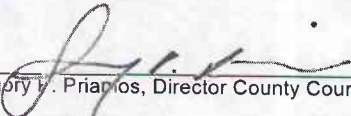
RS:SP:JA:DL:SC:mg FM08270011226 MT Item # 17228
G:\Project Management Office\FORM 11'S\FORM 11's_In Process\17228_D4 - 011226 - RivCo Fire Stn 41 & Stn 49 Rplc Proj - Design-Build Agmt with TildenCoil & Waiver of LEED Cert_101921.doc



Meghan Hahn, Senior Management Analyst 10/12/2021



Frankie Z. Ezzat, Director of Budget 10/14/2021



Gregory L. Priamos, Director County Counsel 10/8/2021

ADDENDUM 1

THE COUNTY OF RIVERSIDE FACILITIES MANAGEMENT DEPARTMENT
REQUEST FOR QUALIFICATIONS AND PROPOSALS
FROM DESIGN/BUILD ENTITIES



FOR THE

RIVERSIDE COUNTY FIRE
DEPARTMENT MODULAR FIRE
STATION 41 NORTH SHORE
AND FIRE STATION 49 LAKE
TAMARISK

Riverside County, California
FM08270011226

Issued by:
COUNTY OF RIVERSIDE
Facilities Management Department
3133 Mission Inn Avenue
Riverside, CA 92507

Issue Date: 6/8/21

ADDENDUM 1

1.0 Clarifications from the County:

1. Is there a deadline for asking questions?

Response: The deadline for asking questions is Thursday, June 10, 5pm.

2. Is there a published desired program/floor plan with square footages available for review?

Response: There is not a published floor plan that we released, but all the square footage should be listed in Exhibit A which was released.

3. Is it the County's intent to keep the two existing fire stations operational while the new stations are constructed?

Response: Yes, the plan is to keep those operational.

4. In the exhibits the program references two bays and three bays. Is it the County's intent to have two bay stations, three bay stations or both?

Response: The intent is to have 2 bay stations with the ability to expand to 3 with the growth of the community.

5. Due to Covid-19, is it possible to submit the RFQ-RFP response electronically versus paper copies?

Response: Yes, that is acceptable. Please submit to project manager Dominick Lombardi at dlombardi@rivco.org.

End of Document



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/31/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

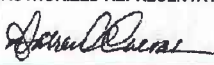
PRODUCER License # 0757776 Riverside, CA - HUB International Insurance Services Inc. PO Box 5345 Riverside, CA 92517		CONTACT NAME: Velma Pue PHONE (A/C, No, Ext): (951) 779-8567 E-MAIL ADDRESS: velma.pue@hubinternational.com FAX (A/C, No): (951) 742-4066	
		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Travelers Property Casualty Company of America	
		INSURER B:	
		INSURER C:	
		INSURER D:	
		INSURER E:	
		INSURER F:	
INSURED Tilden-Coil Constructors, Inc. 3612 Mission Inn Avenue Riverside, CA 92501		NAIC # 25674	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	X	DTE-CO-1166C567-TIL-20	12/31/2020	12/31/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 EBL AGGREGATE \$ 2,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	810-8N638483-20-26G	12/31/2020	12/31/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP-4P792767-20-26	12/31/2020	12/31/2021	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	UB-9J589636-21-26-G	1/1/2021	1/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Re: Verification of Insurance.
 Tilden-Coil Constructors, Inc. and Owner are Additional Insured in regards to the General Liability policy per the attached endorsement form CGD246 04-19, Primary/Non-Contributory wording included. General Liability Aggregate Limits apply Per Project per the attached endorsement form CGD211 01-04. Waiver of Subrogation applies to the General Liability policy per the attached endorsement form CGD316 02-19. Additional Insured in regards to the Auto Liability policy applies per the attached endorsement form CAT353 02-15, Waiver of Subrogation included. Waiver of Subrogation applies to the Workers Compensation policy per the attached endorsement form WC990376(A)-001.
 SEE ATTACHED ACORD 101

CERTIFICATE HOLDER Tilden-Coil Constructors	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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ADDITIONAL REMARKS SCHEDULE

AGENCY Riverside, CA - HUB International Insurance Services Inc.	License # 0757776	NAMED INSURED Tilden-Coil Constructors, Inc. 3612 Mission Inn Avenue Riverside, CA 92501
POLICY NUMBER SEE PAGE 1		
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Description of Operations/Locations/Vehicles:

"Should the policies be cancelled before the expiration date, Hub International Insurance Services Inc. (Hub), independent of any rights which may be afforded within the policies to the certificate holder named below, will provide to such certificate holder notice of such cancellation within thirty (30) days of the cancellation date, except in the event the cancellation is due to non-payment of premium, in which case Hub will provide to such certificate holder notice of such cancellation within ten (10) days of the cancellation date."

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BLANKET ADDITIONAL INSURED
(Includes Products-Completed Operations If Required By Contract)

This endorsement modifies insurance provided under the following:
COMMERCIAL GENERAL LIABILITY COVERAGE PART

PROVISIONS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any person or organization that you agree in a written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only:

- a. With respect to liability for "bodily injury" or "property damage" that occurs, or for "personal injury" caused by an offense that is committed, subsequent to the signing of that contract or agreement and while that part of the contract or agreement is in effect; and
- b. If, and only to the extent that, such injury or damage is caused by acts or omissions of you or your subcontractor in the performance of "your work" to which the written contract or agreement applies. Such person or organization does not qualify as an additional insured with respect to the independent acts or omissions of such person or organization.

The insurance provided to such additional insured is subject to the following provisions:

- a. If the Limits of Insurance of this Coverage Part shown in the Declarations exceed the minimum limits required by the written contract or agreement, the insurance provided to the additional insured will be limited to such minimum required limits. For the purposes of determining whether this limitation applies, the minimum limits required by the written contract or agreement will be considered to include the minimum limits of any Umbrella or Excess liability coverage required for the additional insured by that written contract or agreement. This provision will not increase the limits of insurance described in Section III – Limits Of Insurance.
- b. The insurance provided to such additional insured does not apply to:

(1) Any "bodily injury", "property damage" or "personal injury" arising out of the providing, or failure to provide, any professional architectural, engineering or surveying services, including:

- (a) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders or change orders, or the preparing, approving, or failing to prepare or approve, drawings and specifications; and
- (b) Supervisory, inspection, architectural or engineering activities.

(2) Any "bodily injury" or "property damage" caused by "your work" and included in the "products-completed operations hazard" unless the written contract or agreement specifically requires you to provide such coverage for that additional insured during the policy period.

c. The additional insured must comply with the following duties:

- (1) Give us written notice as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, such notice should include:
 - (a) How, when and where the "occurrence" or offense took place;
 - (b) The names and addresses of any injured persons and witnesses; and
 - (c) The nature and location of any injury or damage arising out of the "occurrence" or offense.
- (2) If a claim is made or "suit" is brought against the additional insured:

COMMERCIAL GENERAL LIABILITY

- (a) Immediately record the specifics of the claim or "suit" and the date received; and
 - (b) Notify us as soon as practicable and see to it that we receive written notice of the claim or "suit" as soon as practicable.
- (3) Immediately send us copies of all legal papers received in connection with the claim or "suit", cooperate with us in the investigation or settlement of the claim or defense against the "suit", and otherwise comply with all policy conditions.
- (4) Tender the defense and indemnity of any claim or "suit" to any provider of other insurance which would cover such additional insured for a loss we cover. However, this condition does not affect whether the insurance provided to such additional insured is primary to other insurance available to such additional insured which covers that person or organization as a named insured as described in Paragraph 4., Other Insurance, of Section IV – Commercial General Liability Conditions.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY

DESIGNATED PROJECT(S) GENERAL AGGREGATE LIMIT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Designated Project(s):

EACH "PROJECT" FOR WHICH YOU HAVE AGREED, IN A WRITTEN CONTRACT WHICH IS IN EFFECT DURING THIS POLICY PERIOD, TO PROVIDE A SEPARATE GENERAL AGGREGATE LIMIT, PROVIDED THAT THE CONTRACT IS SIGNED AND EXECUTED BY YOU BEFORE THE "BODILY INJURY" OR "PROPERTY DAMAGE" OCCURS.

**Designated Project
General Aggregate(s):**

GENERAL AGGREGATE
LIMIT SHOWN ON THE
DECLARATIONS

- A. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under **COVERAGE A. (SECTION I)**, and for all medical expenses caused by accidents under **COVERAGE C (SECTION I)**, which can be attributed only to operations at a single designated "project" shown in the Schedule above:
1. A separate Designated Project General Aggregate Limit applies to each designated "project", and that limit is equal to the amount of the General Aggregate Limit shown in the Declarations, unless separate **Designated Project General Aggregate(s)** are scheduled above.
 2. The Designated Project General Aggregate Limit is the most we will pay for the sum of all damages under **COVERAGE A.**, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard", and for medical expenses under **COVERAGE C**, regardless of the number of:
 - a. Insureds;
 - b. Claims made or "suits" brought; or
 - c. Persons or organizations making claims or bringing "suits".
 3. Any payments made under **COVERAGE A.** for damages or under **COVERAGE C.** for medical expenses shall reduce the Designated Project General Aggregate Limit for that designated "project". Such payments shall not reduce the General Aggregate Limit shown in the Declarations nor shall they reduce any other Designated Project General Aggregate Limit for any other designated "project" shown in the Schedule above.
 4. The limits shown in the Declarations for **Each Occurrence, Damage To Premises Rented To You and Medical Expense** continue to apply. However, instead of being subject to the General Aggregate Limit shown in the Declarations, such limits will be subject to the applicable Designated Project General Aggregate Limit.
- B. For all sums which the insured becomes legally obligated to pay as damages caused by "occurrences" under **COVERAGE A. (SECTION I)**, and for all medical expenses caused by accidents under **COVERAGE C. (SECTION I)**, which cannot be attributed only to operations at a single designated "project" shown in the Schedule above:



COMMERCIAL GENERAL LIABILITY

1. Any payments made under **COVERAGE A.** for damages or under **COVERAGE C.** for medical expenses shall reduce the amount available under the General Aggregate Limit or the Products-Completed Operations Aggregate Limit, whichever is applicable; and
 2. Such payments shall not reduce any Designated Project General Aggregate Limit.
- C. Part 2. of **SECTION III – LIMITS OF INSURANCE** is deleted and replaced by the following:
2. The General Aggregate Limit is the most we will pay for the sum of:
 - a. Damages under **Coverage B;** and
 - b. Damages from "occurrences" under **COVERAGE A (SECTION I)** and for all medical expenses caused by accidents under **COVERAGE C (SECTION I)** which cannot be attributed only to operations at a single designated "project" shown in the **SCHEDULE** above.
- D. When coverage for liability arising out of the "products-completed operations hazard" is provided, any payments for damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard" will reduce the Products-Completed Operations Aggregate Limit, and not reduce the General Aggregate Limit nor the Designated Project General Aggregate Limit.
- E. For the purposes of this endorsement the **Definitions Section** is amended by the addition of the following definition:
- "Project" means an area away from premises owned by or rented to you at which you are performing operations pursuant to a contract or agreement. For the purposes of determining the applicable aggregate limit of insurance, each "project" that includes premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad shall be considered a single "project".
- F. The provisions of **SECTION III – LIMITS OF INSURANCE** not otherwise modified by this endorsement shall continue to apply as stipulated.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

XTEND ENDORSEMENT FOR CONTRACTORS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to this Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- | | |
|--|---|
| <p>A. Who Is An Insured – Unnamed Subsidiaries</p> <p>B. Blanket Additional Insured – Governmental Entities – Permits Or Authorizations Relating To Operations</p> | <p>C. Incidental Medical Malpractice</p> <p>D. Blanket Waiver Of Subrogation</p> <p>E. Contractual Liability – Railroads</p> <p>F. Damage To Premises Rented To You</p> |
|--|---|

PROVISIONS

A. WHO IS AN INSURED – UNNAMED SUBSIDIARIES

The following is added to **SECTION II – WHO IS AN INSURED**:

Any of your subsidiaries, other than a partnership, joint venture or limited liability company, that is not shown as a Named Insured in the Declarations is a Named Insured if:

- a. You are the sole owner of, or maintain an ownership interest of more than 50% in, such subsidiary on the first day of the policy period; and
- b. Such subsidiary is not an insured under similar other insurance.

No such subsidiary is an insured for "bodily injury" or "property damage" that occurred, or "personal and advertising injury" caused by an offense committed:

- a. Before you maintained an ownership interest of more than 50% in such subsidiary; or
- b. After the date, if any, during the policy period that you no longer maintain an ownership interest of more than 50% in such subsidiary.

For purposes of Paragraph 1. of Section II – Who Is An Insured, each such subsidiary will be deemed to be designated in the Declarations as:

- a. An organization other than a partnership, joint venture or limited liability company; or

- b. A trust;

as indicated in its name or the documents that govern its structure.

B. BLANKET ADDITIONAL INSURED – GOVERNMENTAL ENTITIES – PERMITS OR AUTHORIZATIONS RELATING TO OPERATIONS

The following is added to **SECTION II – WHO IS AN INSURED**:

Any governmental entity that has issued a permit or authorization with respect to operations performed by you or on your behalf and that you are required by any ordinance, law, building code or written contract or agreement to include as an additional insured on this Coverage Part is an insured, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" arising out of such operations.

The insurance provided to such governmental entity does not apply to:

- a. Any "bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the governmental entity; or
- b. Any "bodily injury" or "property damage" included in the "products-completed operations hazard".

COMMERCIAL GENERAL LIABILITY

C. INCIDENTAL MEDICAL MALPRACTICE

1. The following replaces Paragraph **b.** of the definition of "occurrence" in the **DEFINITIONS** Section:

b. An act or omission committed in providing or failing to provide "incidental medical services", first aid or "Good Samaritan services" to a person, unless you are in the business or occupation of providing professional health care services.

2. The following replaces the last paragraph of Paragraph 2.a.(1) of **SECTION II – WHO IS AN INSURED**:

Unless you are in the business or occupation of providing professional health care services, Paragraphs (1)(a), (b), (c) and (d) above do not apply to "bodily injury" arising out of providing or failing to provide:

(a) "Incidental medical services" by any of your "employees" who is a nurse, nurse assistant, emergency medical technician or paramedic; or

(b) First aid or "Good Samaritan services" by any of your "employees" or "volunteer workers", other than an employed or volunteer doctor. Any such "employees" or "volunteer workers" providing or failing to provide first aid or "Good Samaritan services" during their work hours for you will be deemed to be acting within the scope of their employment by you or performing duties related to the conduct of your business.

3. The following replaces the last sentence of Paragraph 5. of **SECTION III – LIMITS OF INSURANCE**:

For the purposes of determining the applicable Each Occurrence Limit, all related acts or omissions committed in providing or failing to provide "incidental medical services", first aid or "Good Samaritan services" to any one person will be deemed to be one "occurrence".

4. The following exclusion is added to Paragraph 2., **Exclusions**, of **SECTION I – COVERAGES – COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY**:

Sale Of Pharmaceuticals

"Bodily injury" or "property damage" arising out of the violation of a penal statute or ordinance relating to the sale of

pharmaceuticals committed by, or with the knowledge or consent of, the insured.

5. The following is added to the **DEFINITIONS** Section:

"Incidental medical services" means:

a. Medical, surgical, dental, laboratory, x-ray or nursing service or treatment, advice or instruction, or the related furnishing of food or beverages; or

b. The furnishing or dispensing of drugs or medical, dental, or surgical supplies or appliances.

6. The following is added to Paragraph 4.b., **Excess Insurance**, of **SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS**:

This insurance is excess over any valid and collectible other insurance, whether primary, excess, contingent or on any other basis, that is available to any of your "employees" for "bodily injury" that arises out of providing or failing to provide "incidental medical services" to any person to the extent not subject to Paragraph 2.a.(1) of Section II – Who Is An Insured.

D. BLANKET WAIVER OF SUBROGATION

The following is added to Paragraph 8., **Transfer Of Rights Of Recovery Against Others To Us**, of **SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS**:

If the insured has agreed in a contract or agreement to waive that insured's right of recovery against any person or organization, we waive our right of recovery against such person or organization, but only for payments we make because of:

a. "Bodily injury" or "property damage" that occurs; or

b. "Personal and advertising injury" caused by an offense that is committed;

subsequent to the execution of the contract or agreement.

E. CONTRACTUAL LIABILITY – RAILROADS

1. The following replaces Paragraph c. of the definition of "insured contract" in the **DEFINITIONS** Section:

c. Any easement or license agreement;

2. Paragraph f.(1) of the definition of "insured contract" in the **DEFINITIONS** Section is deleted.

F. DAMAGE TO PREMISES RENTED TO YOU

The following replaces the definition of "premises damage" in the **DEFINITIONS** Section:

"Premises damage" means "property damage" to:

- a. Any premises while rented to you or temporarily occupied by you with permission of the owner; or
- b. The contents of any premises while such premises is rented to you, if you rent such premises for a period of seven or fewer consecutive days.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BUSINESS AUTO EXTENSION ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

GENERAL DESCRIPTION OF COVERAGE – This endorsement broadens coverage. However, coverage for any injury, damage or medical expenses described in any of the provisions of this endorsement may be excluded or limited by another endorsement to the Coverage Part, and these coverage broadening provisions do not apply to the extent that coverage is excluded or limited by such an endorsement. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the provisions of this endorsement and the rest of your policy carefully to determine rights, duties, and what is and is not covered.

- | | |
|---|---|
| A. BROAD FORM NAMED INSURED | H. HIRED AUTO PHYSICAL DAMAGE – LOSS OF USE – INCREASED LIMIT |
| B. BLANKET ADDITIONAL INSURED | I. PHYSICAL DAMAGE – TRANSPORTATION EXPENSES – INCREASED LIMIT |
| C. EMPLOYEE HIRED AUTO | J. PERSONAL PROPERTY |
| D. EMPLOYEES AS INSURED | K. AIRBAGS |
| E. SUPPLEMENTARY PAYMENTS – INCREASED LIMITS | L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS |
| F. HIRED AUTO – LIMITED WORLDWIDE COVERAGE – INDEMNITY BASIS | M. BLANKET WAIVER OF SUBROGATION |
| G. WAIVER OF DEDUCTIBLE – GLASS | N. UNINTENTIONAL ERRORS OR OMISSIONS |

PROVISIONS

A. BROAD FORM NAMED INSURED

The following is added to Paragraph A.1., **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

Any organization you newly acquire or form during the policy period over which you maintain 50% or more ownership interest and that is not separately insured for Business Auto Coverage. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

B. BLANKET ADDITIONAL INSURED

The following is added to Paragraph c. in A.1., **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

Any person or organization who is required under a written contract or agreement between you and that person or organization, that is signed and executed by you before the "bodily injury" or "property damage" occurs and that is in effect during the policy period, to be named as an additional insured is an "insured" for Covered Autos Liability Coverage, but only for damages to which

this insurance applies and only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Section II.

C. EMPLOYEE HIRED AUTO

1. The following is added to Paragraph A.1., **Who Is An Insured**, of **SECTION II – COVERED AUTOS LIABILITY COVERAGE**:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. The following replaces Paragraph b. in B.5., **Other Insurance**, of **SECTION IV – BUSINESS AUTO CONDITIONS**:

b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

- (1) Any covered "auto" you lease, hire, rent or borrow; and
- (2) Any covered "auto" hired or rented by your "employee" under a contract in an "employee's" name, with your

COMMERCIAL AUTO

permission, while performing duties related to the conduct of your business.

However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

D. EMPLOYEES AS INSURED

The following is added to Paragraph A.1., Who Is An Insured, of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

E. SUPPLEMENTARY PAYMENTS – INCREASED LIMITS

1. The following replaces Paragraph A.2.a.(2), of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

(2) Up to \$3,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an "accident" we cover. We do not have to furnish these bonds.

2. The following replaces Paragraph A.2.a.(4), of SECTION II – COVERED AUTOS LIABILITY COVERAGE:

(4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$500 a day because of time off from work.

F. HIRED AUTO – LIMITED WORLDWIDE COVERAGE – INDEMNITY BASIS

The following replaces Subparagraph (5) in Paragraph B.7., Policy Period, Coverage Territory, of SECTION IV – BUSINESS AUTO CONDITIONS:

(5) Anywhere in the world, except any country or jurisdiction while any trade sanction, embargo, or similar regulation imposed by the United States of America applies to and prohibits the transaction of business with or within such country or jurisdiction, for Covered Autos Liability Coverage for any covered "auto" that you lease, hire, rent or borrow without a driver for a period of 30 days or less and that is not an "auto" you lease, hire, rent or borrow from any of your "employees", partners (if you are a partnership), members (if you are a limited liability company) or members of their households.

(a) With respect to any claim made or "suit" brought outside the United States of America, the territories and possessions of the United States of America, Puerto Rico and Canada:

(i) You must arrange to defend the "insured" against, and investigate or settle any such claim or "suit" and keep us advised of all proceedings and actions.

(ii) Neither you nor any other involved "insured" will make any settlement without our consent.

(iii) We may, at our discretion, participate in defending the "insured" against, or in the settlement of, any claim or "suit".

(iv) We will reimburse the "insured" for sums that the "insured" legally must pay as damages because of "bodily injury" or "property damage" to which this insurance applies, that the "insured" pays with our consent, but only up to the limit described in Paragraph C., Limits Of Insurance, of SECTION II – COVERED AUTOS LIABILITY COVERAGE.

(v) We will reimburse the "insured" for the reasonable expenses incurred with our consent for your investigation of such claims and your defense of the "insured" against any such "suit", but only up to and included within the limit described in Paragraph C., Limits Of Insurance, of SECTION II – COVERED AUTOS LIABILITY COVERAGE, and not in addition to such limit. Our duty to make such payments ends when we have used up the applicable limit of insurance in payments for damages, settlements or defense expenses.

(b) This insurance is excess over any valid and collectible other insurance available to the "insured" whether primary, excess, contingent or on any other basis.

(c) This insurance is not a substitute for required or compulsory insurance in any country outside the United States, its territories and possessions, Puerto Rico and Canada.



You agree to maintain all required or compulsory insurance in any such country up to the minimum limits required by local law. Your failure to comply with compulsory insurance requirements will not invalidate the coverage afforded by this policy, but we will only be liable to the same extent we would have been liable had you complied with the compulsory insurance requirements.

- (d) It is understood that we are not an admitted or authorized insurer outside the United States of America, its territories and possessions, Puerto Rico and Canada. We assume no responsibility for the furnishing of certificates of insurance, or for compliance in any way with the laws of other countries relating to insurance.

G. WAIVER OF DEDUCTIBLE – GLASS

The following is added to Paragraph D., **Deductible**, of SECTION III – **PHYSICAL DAMAGE COVERAGE**:

No deductible for a covered "auto" will apply to glass damage if the glass is repaired rather than replaced.

H. HIRED AUTO PHYSICAL DAMAGE – LOSS OF USE – INCREASED LIMIT

The following replaces the last sentence of Paragraph A.4.b., **Loss Of Use Expenses**, of SECTION III – **PHYSICAL DAMAGE COVERAGE**:

However, the most we will pay for any expenses for loss of use is \$65 per day, to a maximum of \$750 for any one "accident".

I. PHYSICAL DAMAGE – TRANSPORTATION EXPENSES – INCREASED LIMIT

The following replaces the first sentence in Paragraph A.4.a., **Transportation Expenses**, of SECTION III – **PHYSICAL DAMAGE COVERAGE**:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

J. PERSONAL PROPERTY

The following is added to Paragraph A.4., **Coverage Extensions**, of SECTION III – **PHYSICAL DAMAGE COVERAGE**:

Personal Property

We will pay up to \$400 for "loss" to wearing apparel and other personal property which is:

- (1) Owned by an "insured"; and

- (2) In or on your covered "auto".

This coverage applies only in the event of a total theft of your covered "auto".

No deductibles apply to this Personal Property coverage.

K. AIRBAGS

The following is added to Paragraph B.3., **Exclusions**, of SECTION III – **PHYSICAL DAMAGE COVERAGE**:

Exclusion 3.a. does not apply to "loss" to one or more airbags in a covered "auto" you own that inflate due to a cause other than a cause of "loss" set forth in Paragraphs A.1.b. and A.1.c., but only:

- a. If that "auto" is a covered "auto" for Comprehensive Coverage under this policy;
- b. The airbags are not covered under any warranty; and
- c. The airbags were not intentionally inflated.

We will pay up to a maximum of \$1,000 for any one "loss".

L. NOTICE AND KNOWLEDGE OF ACCIDENT OR LOSS

The following is added to Paragraph A.2.a., of SECTION IV – **BUSINESS AUTO CONDITIONS**:

Your duty to give us or our authorized representative prompt notice of the "accident" or "loss" applies only when the "accident" or "loss" is known to:

- (a) You (if you are an individual);
- (b) A partner (if you are a partnership);
- (c) A member (if you are a limited liability company);
- (d) An executive officer, director or insurance manager (if you are a corporation or other organization); or
- (e) Any "employee" authorized by you to give notice of the "accident" or "loss".

M. BLANKET WAIVER OF SUBROGATION

The following replaces Paragraph A.5., **Transfer Of Rights Of Recovery Against Others To Us**, of SECTION IV – **BUSINESS AUTO CONDITIONS**:

5. Transfer Of Rights Of Recovery Against Others To Us

We waive any right of recovery we may have against any person or organization to the extent required of you by a written contract signed and executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by

COMMERCIAL AUTO

such contract. The waiver applies only to the person or organization designated in such contract.

N. UNINTENTIONAL ERRORS OR OMISSIONS

The following is added to Paragraph B.2., Concealment, Misrepresentation, Or Fraud, of SECTION IV – BUSINESS AUTO CONDITIONS:

The unintentional omission of, or unintentional error in, any information given by you shall not prejudice your rights under this insurance. However this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.





ONE TOWER SQUARE
HARTFORD, CT 06183

**WORKERS COMPENSATION
AND
EMPLOYERS LIABILITY POLICY**

ENDORSEMENT WC 99 03 76 (A) – 001

POLICY NUMBER: UB-9J589636-21-26-G

**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS
ENDORSEMENT – CALIFORNIA
(BLANKET WAIVER)**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule.

The additional premium for this endorsement shall be 1.00 % of the California workers' compensation premium.

Schedule

Person or Organization

Job Description

ANY PERSON OR ORGANIZATION
FOR WHICH THE INSURED HAS
AGREED BY WRITTEN CONTRACT
EXECUTED PRIOR TO LOSS TO
FURNISH THIS WAIVER.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective
Insured

Policy No. **UB-9J589636-21-26-G**

Endorsement No.
Premium

Insurance Company

Countersigned by _____

EXHIBIT A

DESIGN/BUILD Agreement



RIVERSIDE COUNTY FIRE
STATION 41 NORTH SHORE
AND FIRE STATION 49 LAKE
TAMARISK

Riverside County, CA

FM08270011226

DESIGN-BUILD AGREEMENT

This Design-Build Agreement ("Agreement") is made effective this ____ day of _____ 2021 ("Agreement Date") by and between the COUNTY OF RIVERSIDE ("County"), a political subdivision of the State of California and Tilden-Coil Constructors, Inc., ("Design-Builder" or "Contractor"), a California Corporation, for the design, management, and construction of Fire Station 41 located in North Shore and Fire Station 49 located in Desert Center.

1.1 DEFINITIONS

The meanings of all capitalized terms used in the Contract Documents and not otherwise defined herein are contained in the General Conditions. If not defined in the General Conditions, they shall have the meanings assigned to them elsewhere in the Contract Documents. If not defined in the General Conditions or elsewhere, they shall have the meanings reasonably understood to apply to them by the context of the portion of the Contract Documents where such terms are used.

1.2 CONTRACT DOCUMENTS

The "Contract Documents" except for modifications issued after execution of this Agreement, consist of the following documents, all of which are either attached hereto as exhibits or are incorporated herein by this reference:

1.2.1 This Agreement, including all Exhibits and attachments to the RFP:

- a. **Exhibit A** – Design-Build Agreement
- b. **Exhibit B** – Design-Build General Conditions
- c. **Exhibit C** – Payment & Performance Bonds (C-1 and C-2)
- d. **Exhibit D** – Proposal Packet (D-1 and D-2)
- e. **Exhibit E** – Surveys
- f. **Exhibit F** – Geotechnical Reports (F-1 and F-2)
- g. **Exhibit G** – Tilden-Coil Draft Schedule

1.2.2 **RFP Documents, Design-Builder Proposal, Best and Final Offer.** The RFP Documents, the Design-Builder Proposal (if no Best and Final Offers have been submitted) or (if Best and Final Offers have been submitted) the Design-Builder's last submitted Best and Final Offer (including, in the case of a Best and Final Offer that is an amendment to a Design-Builder Proposal, any portion of the Design-Builder's Proposal expressly stated to be a part of the Design Builder's Best and Final Offer); provided, however, that, with the exception of Approved Deviations, the Contract Documents shall not include any portion of the Design-Builder Proposal or a Best and Final Offer that deviates from the Project criteria.

1.2.3 **General Conditions**

1.2.4 Supplemental and Special Conditions. None.

1.2.5 Final Construction Documents. The Final Construction Drawings to be hereafter prepared by the Design-Builder and its Sub-consultants that are approved by the County in accordance with the terms of the Contract Documents; provided, however, that, in the exception of Approved Deviations, the Contract Documents shall not include any portion of the Design-Builder Proposal or a Best and Final Offer that deviates from the Project criteria.

1.2.6 Addenda. The following Addenda listed below:

Addendum 1

1.2.7 Labor Compliance Program. It is in the best interests of the Project for the Design-Builder to avoid labor disputes, strikes, lockouts, work slow-downs, and work stoppages that would result in a delay of the construction progress. The County will establish and enforce a labor compliance program as required by Public Contract Code section 20133(b)(3). The Design-Builder shall cooperate with the County in the establishment and enforcement of the labor compliance program. The Design-Builder shall provide the County with all documentation required by the County to establish and enforce the labor compliance program.

1.2.8 Project Safety Program

1.3 REFERENCE DOCUMENTS

The following Reference Documents are not considered Contract Documents and were provided to the Design-Builder for informational purposes. Design-Builder may rely upon the technical data contained in such documents but not upon nontechnical data, interpretations, opinions or provisional statements contained therein:

1.3.1 Phase 1 Report – Fire Station 49 Property

1.4 ENTIRE AGREEMENT

The Contract Documents represent the entire and integrated agreement between County and Design-Builder, all other representations or statements, whether verbal or written, are merged herein. The Design-Build Contract may be amended only by written modification.

ARTICLE II THE WORK

2.1 SCOPE OF WORK

2.1.1 Contractor shall provide, furnish, and perform all necessary planning, architectural, engineering, and all other design services of any type, procurement, permitting and support services, construction, landscaping, clean-up, and all other construction services of any type, provide and furnish all necessary supplies, materials and equipment (except those to be provided by County, if any) and all necessary supervision, labor, and services required for the complete engineering, design, procurement, quality assurance, construction and all necessary installation, start-up and testing required for a complete, operational, and fully functional Project, as further described in Contractor's Best and Final Proposal (hereinafter, the all-inclusive obligations of the Contractor set forth in this sentence shall be referred to as the "Work"). Except with regard to any material to be provided and/or

installed by County, Contractor shall fully commission and turn over a complete operational, and fully functional Project to County. Without limiting the generality of this Section, Contractor shall provide the following work and services:

2.1.2 Contractor shall prepare complete designs, engineering, working drawings, shop drawings and generate drawings and/or engineering analysis setting forth in detail the specifications and requirements for the purchasing and procurement of the services, materials and equipment and for the construction of the complete, operational, and fully functional Project, and shall furnish the services of all necessary supervisors, engineers, designers, draftsmen, and other personnel necessary for preparation of those drawings and specifications required for the Work, including the pertinent information for natural gas, water supply, and any other utilities, as required.

2.1.3 Contractor shall provide, install and complete as specified and pay for all labor, materials and equipment, tools, supplies, construction equipment and machinery, construction, start-up and testing, utilities, transportation, and other facilities and services (including any temporary materials, equipment, supplies and facilities) necessary for the proper execution and completion of the complete, operational, and fully functional Project, including the permanent interconnection for electricity, natural gas, water supply, and any other utilities and demonstration of fully satisfactory operation of all systems and equipment.

2.1.4 Contractor shall supervise and direct the Work, and shall furnish the services of all supervisors, forepersons, skilled and unskilled labor, and all other personnel necessary to design and construct the complete, operational, and fully functional Project. Contractor shall provide, manage and organize such personnel as necessary to complete the Work in accordance with all requirements of the Contract Documents.

2.1.5 Contractor shall obtain, at Contractor's expense, all governmental and private approvals, licenses, and permits required to complete the Work; provided, however, County will be responsible for paying the cost of all County imposed fees. Contractor shall design and construct complete, operational, and fully functional Project in full compliance with all applicable laws, codes and standards (both public and private), including but not limited to, the standards included, and warranties expressed in the Contract Documents and manufacturer's recommendations pertaining to individual items of equipment or systems.

2.2 STANDARD OF PERFORMANCE

In addition to and without limiting Design-Builder's other obligations under the Contract Documents, Design-Builder shall at all times in its performance of its obligations under the Contract Documents conform to the following general standards for construction of the type called for by this Design-Build Contract for projects of a scope and complexity that is comparable to the Project; Design-Builder shall:

2.2.1 Comply with the requirements of the Contract Documents;

2.2.2 Comply with Applicable Laws;

2.2.3 Conform to the standard of care applicable to those who provide design-build project services and construction of the type called for by this Design-Build Contract for projects of a scope and complexity that is comparable to the Project;

2.2.4 Furnish efficient business administration of the Work, utilizing sufficient management and other qualified personnel to manage the Work; and

2.2.5 Apply its professional skill and attention to completing the Work in an expeditious and economical manner, consistent with the expressed best interests of the County and within the limitations of the Contract Sum and Contract Time.

ARTICLE III TIME FOR PERFORMANCE

3.1 CONTRACT TIME

The Date of Commencement of the Work shall be fixed in a Notice to Proceed issued by the County. If County's issuance of a Notice to Proceed is delayed due to Design-Builder's failure to return a fully executed Agreement, insurance documents or bonds within fourteen (14) calendar days after the date of award of the Contract, one (1) calendar day will be deducted from the number of days to achieve Substantial Completion of the Work for every day of delay in County's receipt of such documents. This right is in addition to and does not affect County's right to demand forfeiture of Design Builder's bid Security, or any other rights or remedies available to County if Design-Builder persistently delays in providing the required documentation. Design-Builder agrees to promptly commence the Work after the Notice to Proceed is issued by the County, to achieve Substantial Completion of the entire Work within [540] calendar days after the Date of Commencement ("Contract Time") and to achieve Final Completion of the Work within the time fixed by the County in the Certificate of Substantial Completion. The Contract Time may be extended only with the written authorization of the County.

3.2 LIQUIDATED DAMAGES

3.2.1 County and Design-Builder recognize that time is of the essence if this Agreement and that the County may suffer financial loss in the form of lost grant funds, additional contract administration expenses, loss of public use if the Work is not completed within the Contract Time, including any extensions thereof allowed in accordance with the Contract Documents.

3.2.2 Design-Builder and County agree to liquidate damages with respect to Design-Builder's failure to achieve Substantial Completion of the Work within the Contract Time. The Parties intend for the liquidated damages set forth herein to apply to this Contract as set forth in Government Code Section 53069.85. Design-Builder acknowledges and agrees that the liquidated damages are intended to compensate County solely for Design-Builder's failure to meet the deadline for Substantial Completion and shall not excuse Design-Builder from liability from any other breach, including any failure of the Work to conform to the requirements of the Contract Documents.

3.2.3 In the event that Design-Builder fails to achieve Substantial Completion of the Work within the Contract Time, Design-Builder agrees to pay County \$1,000 per day for each calendar day that Substantial Completion is delayed.

3.2.4 Design-Builder acknowledges and agrees that the foregoing liquidated damages have been set based on an evaluation by County of damages that it will incur in the event of the late completion of the Work. Design-Builder and County agree that because of the nature of the Project it would be impractical or extremely difficult to fix the amount of actual damages incurred by the County due to a delay in completion of the Work. Accordingly, the County and Design-Builder have agreed to such liquidated damages to fix Design-Builder's costs and to avoid later disputes. It is understood and agreed by Design-Builder that any liquidated damages payable pursuant to this Agreement are not a penalty and that such amounts are not manifestly unreasonable under the circumstances existing as of the effective date of this Agreement.

3.2.5 It is further mutually agreed that County shall have the right to deduct liquidated damages against progress payments or retainage and that the County will issue a unilateral Construction Change Directive and reduce the Contract Sum accordingly. In the event the remaining unpaid Contract Sum is insufficient to cover the full amount of liquidated damages, Design-Builder shall pay the difference to County.

ARTICLE IV CONTRACT SUM

4.1 CONTRACT SUM

4.1.1 Total Compensation. County shall pay the Design-Builder in current funds for the Design-Builder's complete performance of the Work, including, but not limited to design and construction in accordance with the Contract Documents the Contract Sum of Eight Million One Hundred Forty Thousand Dollars (\$8,140,000). This Contract Sum is a target value and placeholder that will be validated and revised by the Parties in an amendment to this Agreement around the completion of construction documents.

4.1.2 Design Fee. The Contract Price includes a Design Fee of Six Hundred Nineteen Thousand Twenty Eight Dollars (\$619,028). The sole purpose of the Design Fee is to determine: (1) the compensation County is obligated to pay to Design-Builder under Article 9 of the General Conditions in the event the Design-Build Contract is terminated, by either the County or Design-Builder, for cause or convenience, prior to commencement of any physical construction at the Site; and (2) the amount that the Design-Builder is entitled pursuant to Paragraph 9.3 of the General Conditions to include in its Applications for Payment seeking progress payments for the design and non-design portions of the Work.

4.1.3 All Inclusive Price. The Contract Sum is the total amount payable by County to Design-Builder for performance of the Work under the Contract Documents and is deemed to cover all costs arising out of or related to the performance of the Work, including, without limitation, the effects of natural elements upon the Work, unforeseen difficulties or obstructions affecting the performance of the Work (including, without limitation, unforeseen conditions at the Site that do not constitute Differing Site Conditions) and fluctuations in market conditions and price escalations (whether occurring locally, nationally or internationally) from any cause, including, without limitation, causes beyond the control or foreseeability of the Design-Builder.

4.1.4 County Design Completion Allowance. The County will not provide a completion allowance stipend for participation in this project.

4.2 ALTERNATES

None.

4.3 COMPENSABLE DELAY DAILY RATE

The following sum of Two Thousand Dollars (\$2,000) shall be paid by the County to the Design Build Entity for each day wherein the terms of Compensable delay are determined to have affected the project's critical path schedule.

4.4 PAYMENT BY ELECTRONIC FUND TRANSFER

Design-Builder shall accept all payments from County via electronic funds transfer (EFT) directly deposited into the Design-Builder's designated checking or other bank account. Design-Builder shall promptly comply with directions and accurately complete forms provided by County required to process EFT payments.

ARTICLE V DESIGN-BUILDER'S DUTIES AND RESPONSIBILITIES

5.1 GENERAL SCOPE OF WORK

5.1.1 Design-Builder shall furnish all design and other Services, provide all materials and undertake all efforts necessary or appropriate to construct the Project in accordance with the requirements of the Contract Documents, all governmental approvals, the approved Construction Documents, all Applicable Law, and all other applicable safety, environmental and other requirements taking into account the constraints affecting the Project Site. Except as otherwise specifically provided in this Contract, all materials, services and efforts necessary to achieve Substantial Completion of the Project and elements thereof on or before the deadlines provided in the Contract Documents shall be Design-Builder's sole responsibility. The costs of all such materials, services and efforts are included in the Contract Sum.

5.1.2 The scope of Services to be provided by Design-Builder is set forth in the Contract Documents as more particularly described in Exhibit B and the Criteria Documents.

5.1.3 The Design-Builder and all Subcontractors, shall obtain a Building Permit the County of Riverside Facilities Management, (951) 955-0911, prior to commencement of Work.

5.2 BEFORE STARTING WORK

Design-Builder shall submit the following to County for review and acceptance within fourteen (14) calendar days after the Date of Commencement fixed in County's Notice to Proceed, and as a condition to payment: (i) detailed Project Schedule including each deadline specified in the Contract Documents; (ii) Schedule of Submittals; (iii) material Procurement Schedule; and (iv) a Schedule of Values in accordance with the requirements of the General Conditions and other Contract Documents.

5.3 INITIAL CONFERENCE

Within twenty (20) calendar days after the Date of Commencement fixed in County's Notice to Proceed, a conference attended by County and Design-Builder and others as appropriate will be held to establish a working understanding among the Parties as to the Work and to discuss the design concepts, updating schedules, progress meetings, procedures for handling submittals, processing Application for Payment, maintaining required records, coordination with Design-Builder Team Members, and other Project administration matters.

5.4 EVALUATION OF PRELIMINARY SUBMITTALS

At least ten (10) calendar days before submission of the first Application for Payment, a conference attended by Design-Builder, County and others as appropriate, will be held to review for acceptability

the submittals required by the Contract Documents. No progress payment shall be made to Design-Builder until the required submittals are acceptable to County. The detailed Project Schedule will be acceptable to County as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Time, but such acceptance will neither impose on County responsibility for the sequencing, scheduling or progress of the Work nor interfere with nor relieve Design-Builder from Design-Builder's full responsibility, therefore. The format and structure of the Project Schedule will be set forth in the Contract Documents and approved by County. County's acceptance shall not be deemed to confirm that the schedule is a reasonable plan for performing the Work. Design-Builder's schedule of submittal will be acceptable to County as providing a workable arrangement for reviewing and processing the required submittals.

5.5 DESIGN PROFESSIONAL LICENSING REQUIREMENTS

County does not intend to contract for, pay for, or receive any design services which are in violation of any professional licensing laws, and by execution of this Contract, Design-Builder acknowledges that County has no such intent. It is the intent of the Parties that Design-Builder is fully responsible for furnishing the design of the Project, although the fully licensed design firms designated as members of the Design Team, will perform the design services required by the Contract Documents. Nothing in this Article shall create a contractual relationship between such Persons and the County.

5.6 STANDARD OF CARE

All design Services performed by Design-Builder, the Design Team Members, Subcontractors, and their employees identified by the Design-Builder or other persons approved by the County shall be performed in an expeditious and professional manner using architects, engineers and other professionals properly licensed and duly qualified in the jurisdiction in which the Project is located. The professional obligations of such persons shall be undertaken and performed in the interest of the Design-Builder. All design Services performed pursuant to this Agreement shall be performed with the degree of skill and learning ordinarily possessed by architects and engineers in good standing in the community regularly engaged in the design and construction of an improvement such as this Project and must apply that knowledge with the diligence ordinarily exercised by reputable architects and engineers under similar circumstances ("Standard of Care").

5.7 CONSTRUCTABILITY AND COORDINATION REVIEWS

Once every two weeks until each permit package completed the Design Development Stage and bi-monthly during the completion of the project construction documents, Design-Builder shall meet with the County, its Separate Contractors, and consultants to coordinate the Construction Documents, including the design of building systems delegated to the Design-Builder, for the purpose of continuing construction feasibility, identifying conflicts, missing information or gaps in the planned scope of Work and to take appropriate action to ensure the full scope of intended Work is performed efficiently and economically.

5.8 PHASES OF WORK

5.8.1 CONCEPTUAL AND SCHEMATIC DESIGN

After the County's issuance of a Design Notice to Proceed, the Design-Builder shall review the Outline Technical Specifications, Architectural Program, Reference Documents and other available data with the County to verify the Design-Builder understands the County's requirements. Design-Build

Builder shall provide up to **three (3)** different Concept Designs for the over-all site development and enlarged building, including up to **three (3)** elevations, to the County for review. The County will review the submitted conceptual designs to make certain the proposed design is consistent with project requirements. The County will have a meeting with the Design-Builder to discuss selection of the schemes. The Design-Builder will also provide its final plan for submitting design packages for permitting, incorporating the requirements outlined below. Once the conceptual design for the entire project and all of its elements has been selected, the Design-Build Builder will begin schematic design. Upon receipt of this conceptual design approval, the Design Builder may commence preparation of design packages for phased jurisdictional permitting.

The Design-Builder will prepare Schematic Design documents for each phased jurisdictional permit package. Items below may be presented within independent permit packages, however coordination of response to the County among permit packages is the responsibility of the Design-Builder.

Elements to be included within the Schematic Design Phase submittals include the one Site Plan inclusive of hardscape, landscape and civil engineering elements, one Floor Plan, a minimum of four (4) Exterior Elevations and one longitudinal building cross section, and one latitudinal building cross section for each building for the County to review and approve; and appropriate cross sections and plan views of aquatic features. The Design-Builder shall also provide current/updated preliminary estimates of Construction Cost, value engineering proposals and schedules for the remaining design and construction. The Design-Builder shall provide written impact evaluations of any variance to the County's project criteria, schedule and budget requirements, provide any recommended alternative approaches to design and construction of the Project, and provide a summary review of governmental community and utility requirements, and a copy of the final Schematic Design Documents in a reproducible format. In the event the preliminary estimate of Construction Cost or any adjustment thereto exceeds the County's specified Construction Budget, the Design-Builder shall, at its sole cost and expense, revise and adjust the design to conform to the County's specified Construction Budget. The County shall review these documents and other materials and provide comments to Design-Builder. Design-Builder shall consider the comments offered and provide the County with a written response and evaluation of these comments. The Design-Builder may not proceed into Design Development phase for any phased permit package without receiving written approval from the County.

5.8.2 DESIGN DEVELOPMENT DOCUMENTS to 50% COMPLETION

After County's issuance of the Notice to Proceed to Design-Development for any phased permit package and within the times set forth in the Project Schedule accepted by County, Design-Builder shall:

Design-Builder shall develop the approved Schematic Design Documents to more fully explain and delineate the design intent. Design Development Documents presented for the County's approval should include site plans, floor plan(s), exterior elevations, reflected ceiling plan(s), building and wall sections, preliminary structural plans, a description and delineation of proposed heating, ventilating and air-conditioning systems, preliminary interior elevations and preliminary lighting, power and data plans, a preliminary landscape plan and civil engineering plans for site and offsite improvements including grading, hydrology, site structures and improvements including roadways retaining walls and utilities. Preliminary material sample boards are required at this phase. Preliminary system specifications will depict all building materials and systems proposed for used by the Design-Builder. Upon completion of the Exhibit A (Design Development to 50%), a cost estimate will be submitted to the County for review and approval. Design-Builder shall review any changes in the County's Construction Cost budget, value

engineering proposals and schedules for the remaining design and construction. In the event the preliminary estimate of Construction Cost or any adjustment thereto exceeds the County's specified Construction Cost Budget, the Design-Builder shall, at its sole cost and expense, revise and adjust the design to conform to the County's specified Construction budget. The County shall review the completed Exhibit A and provide comments to Design-Builder. Design-Builder shall consider the comments offered at this review and provide the County with a written response and evaluation of these comments. The Design-Builder may not proceed into Construction Documents for any phased jurisdictional review package without receiving written approval from the Economic Development. Furnish the above documents, drawings, calculations and specifications to and review them with County for approval within the time indicated in the approved Project Schedule at increments of at least 100% completion of the Design Development Documents.

5.8.3 CONSTRUCTION DOCUMENTS

After receipt of written acceptance by County of each phased Design Development package, Design-Builder shall:

During this phase the Design-Builder shall proceed with Construction Documents (CDs) based on the Step 2 Project Criteria and County-approved Design Development Documents. The County's review and approval of Construction Documents is required at the following milestones: 85% CDs and 100% CDs. Plan check review process with the Building and Safety Department shall commence at the 85% completion mark of this phase. Upon completion of the plan check process, the Design-Builder shall obtain all building and trade permits required for the Work. Upon completion of 85% CD phase, a cost estimate will be submitted to the County for their review and approval. The DESIGN-BUILDER will copy the County on all jurisdictional comments received. Upon incorporation of jurisdictional review comments, the DESIGN-BUILDER shall review the final documents with the County and obtain its approval prior to final back check submission for permitting.

(1) Based on RFP Step 2 Project Criteria and the County-approved Design Development Documents, the Design-Builder shall prepare and provide a preliminary (85% CDs) and final set (100% CDs) of necessary working drawings and specifications, setting forth in detail the requirements for construction of the Project. Design may be prepared as phased submittal packages for jurisdictional review in support of the construction sequence. Construction Documents shall be prepared consistent with the County and industry standards (Construction Standards Institute, American Institute of Architects, and California Green Book).

(2) The final Construction Documents shall delineate the Work required to be accomplished in a clear and concise manner and meet the requirements and standards of all applicable governing agencies including, but not limited to, local, county, state, federal and CAL-OSHA standards. The Design-Builder will provide Drawings on printed bond media. Pencil drawings on vellum or Mylar sheets are permissible only upon written approval of the County.

(3) Specifications shall be prepared in the format of the Construction Standards Institute. Preliminary copies of the Specifications shall be submitted in hard copy to the County upon completion for approval. Upon approval of the final Specifications, the original master set shall be submitted to the County in hard copy.

The Design-Builder shall prepare Construction Documents for the entire Project in full compliance with all applicable building codes, ordinances, and other regulatory authorities. The Construction Documents shall at a minimum comply with all applicable California State Building Codes to include, but not limited to, Title 8 (Industrial Relations) and Title 24 (Building Standards). The completed Construction Documents are to be delivered to the County and shall consist of the following:

(1) Drawings – Provide one reproducible original and ten (10) printed copies of all approved Construction Document drawings. Provide one copy of all approved Construction Document drawings on compact disks (CD) using Computer-Aided Design (CAD) software, using the latest version of AutoCAD; and (2) Specifications—Provide an original and ten (10) printed copies of approved specifications, bound and organized. Provide approved specifications on compact disks for all sections for all work applicable to the Project in a format complying with the current edition of the Construction Specifications Institute's "MasterFormat", as directed by the County in accordance with the following:

a. Electronic computer software in Microsoft Word, latest version for Windows.

b. For articles, materials and equipment identified by brand names, at least two names shall be used, and such names shall be followed by the words "or equal." Specifications shall not contain restrictions that will limit competitive bids. Exceptions shall only be permitted by California Public Contract Code Section 3400.

c. All disks produced shall be clearly labeled to indicate files contained and date produced.

5.8.4 CONSTRUCTION

Design-Builder shall perform Construction Phase Series in accordance with the requirements of the General Conditions. The Design-Builder's Architect and Engineers of record are the responsible entity for management, coordination, and resolution of all design-related issues including submittals, and field observation of the work.

Construct the Project so that the Project is substantially complete and suitable for commencement of maintenance period, as evidenced by the County's Certificate of Completion. Complete any and all final closeout procedures to include but not be limited to: operating and maintenance manuals, operational tests, system commissioning, equipment startup, user training, final as-built record drawings, punch list items, final project cleanup, and signage, necessary to open Sites to the public.

Design-Builder shall complete any outstanding Work necessary to obtain a final inspection approval for all Site work and trade permits from the appropriate Building and Safety Inspector.

After the County issues a Certificate of Substantial Completion, a **ninety (90) day** "landscape maintenance period" and **one (1) year** building warranty period will commence. Design-Builder shall replace any plants that die or are diseased during the landscape maintenance period and repair any warranty items as described in the Design-Build General Conditions and General Requirements.

The Design-Builder shall keep the County informed of the progress and quality of the Work in the form of periodic written reports, as determined by the County but no less than monthly.

As a condition to final payment to Design-Builder, each Design Team Member shall provide written certification that the Work has been constructed in accordance with the Contract Documents and the design provided by such person.

ARTICLE VI DESIGN-BUILDER'S REPRESENTATIONS AND WARRANTIES

In order to induce County to enter into this Agreement, Design-Builder makes the following representations and warranties:

6.1 Design-Builder has visited the Site and has reasonably examined the nature and extent of the Work, Site, locality, actual conditions, as-built conditions, and all local and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the design and the means, methods, techniques, sequences or procedures of construction to be employed by Design-Builder and safety precautions and programs incident thereto.

6.2 Design-Builder has reasonably examined all reports of exploration and tests of subsurface conditions, as-built drawings, drawings or reports, available for design and construction purposes, of physical conditions, including those which are identified in Paragraph 1.3 hereinabove, or which may be apparent at the Site and accepts the criteria set forth in these documents and the General Conditions to the extent of the information contained in these documents upon which the Design-Builder is entitled to rely. Design-Builder agrees that except for the information so identified, Design-Builder does not and shall not rely on any other information contained in these documents.

6.3 After contract award, Design-Builder, will conduct or obtain any additional examinations, investigations, explorations, tests, reports and studies, that pertain to the surface and subsurface conditions, as-built conditions, underground facilities and all other physical conditions at or contiguous to the Site as Design-Builder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.

6.4 Design-Builder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, test, reports and studies with the terms and conditions of the Contract Documents.

6.5 Design-Builder has given County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered before contract award in or among the Contract Documents and as-built drawings and actual conditions and the written resolution thereof through Addenda issued by County is acceptable to Design-Builder.

6.6 Design-Builder is duly organized, existing and in good standing under applicable state law, and is duly qualified to conduct business in the State of California.

6.7 Design-Builder has duly authorized the execution, delivery and performance of this Agreement, the other Contract Documents and the Work to be performed herein. The Contract Documents do not violate or create a default under any instrument, agreement, order or decree binding on Design-Builder.

6.8 Design-Builder confirms its intent to include in the project the following pre-qualified subcontractors, who were listed in the Design-Builder's Statement of Qualifications earlier in this project. Design-Builder acknowledges its responsibility to provide County with a complete and updated list of subcontractors as they become known on the project, and that such listing shall be in accordance with the requirements of California Public Contract Code §§ 20133 *et seq.* Specifically California Public Contract Code Section 20133(f) requires that all subcontractors not listed by the Design-Builder in its submission in response to the Request for Proposals be awarded in accordance with the design-build process set forth by the County. The County process allows the selection of subcontractors based upon the best value to the Project and requires the Design-Builder do both of the following: (1) Provide public notice of the availability of work to be subcontracted in accordance with the publication requirements applicable to the competitive bidding process of the County and (2) Provide a fixed date and time on which the subcontracted work will be awarded in accordance with the procedure established pursuant to Public Contract Code Section 20133(f).

ARTICLE VII MISCELLANEOUS PROVISIONS

7.1 INDEPENDENT DESIGN-BUILDER

Design-Builder is, and shall be, acting at all times in the performance of this Agreement as an independent Design-Builder. Design-Builder shall secure at its expense and be responsible for any and all payment of all taxes, social security, state disability insurance compensation, unemployment compensation and other payroll deductions for Design-Builder and its officers, agents and employees and all business licenses, if any, in connection with the services to be performed hereunder.

7.2 COUNTY EMPLOYEES AND OFFICIALS

Design-Builder shall employ no County official nor any regular County employee in the Work performed pursuant to this Agreement. No officer or employee of County shall have any financial interest in this Agreement in violation of applicable provisions of law.

Design-Builder agrees to provide or has already provided information on former County of Riverside administrative officials (as defined below) who are employed by or represent Design-Builder. The information provided includes a list of former County administrative officials who terminated County employment within the last five years and who are now officers, principals, partners, associates or members of the business. The information also includes the employment with or representation of Design-Builder. For purposes of this provision, "County Administrative Official" is defined as a member of the Board of Supervisors or such officer staff, County administrative officer or member of such officer staff, County department or group head, assistant department or group head, or any employee in the Exempt Group, Management Unit or Safety Management Unit.

7.3 NOTICES

Any notices or special instruction required to be given in writing under this Agreement shall be given either by personal delivery to Design-Builder's agent (as designated in Section 1 hereinabove) or to County's Engineer and County Counsel as the situation shall warrant, or by enclosing the same in a sealed envelope, postage prepaid, and depositing the same in the United States Postal Service, addressed as follows:

COUNTY:

Rose Salgado
Director
Facilities Management
3133 Mission Inn, Riverside, CA 92507

DESIGN-BUILDER:

Dayne Brassard
President and CEO
3612 Mission Inn Ave, Riverside, CA 92501

7.4 CONTRACTOR'S LICENSE NOTICE

Contractors are required by law to be licensed and regulated by the Contractors State License Board, which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors State License Board, P.O. Box 26000, Sacramento, California 95826.

(SIGNATURE PROVISIONS ON FOLLOWING PAGE)

WHEREFORE, this Design-Builder Contract is entered into as of the day and year first written above.

County of Riverside

By: Karen S. Spiegel

Karen Spiegel

Chair, Board of Supervisors

OCT 19 2021

Tilden-Coil Constructors, Inc.

By: [Signature]

Name: Dayne Brassard

Title: President and CEO

ATTEST:

Kecia Harper
Clerk of the Board

By: [Signature]

Deputy

(Seal)



FORM APPROVED COUNTY COUNSEL

BY: Synthia M. Gunzel 10-8-21
SYNTHIA M. GUNZEL DATE

EXHIBIT B

GENERAL CONDITIONS OF THE DESIGN-BUILD CONSTRUCTION CONTRACT BETWEEN COUNTY AND CONTRACTOR

(LONG FORM)

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GENERAL CONDITIONS OF
THE STANDARD FORM CONSTRUCTION CONTRACT
BETWEEN COUNTY AND CONTRACTOR

(LONG FORM)

ARTICLE 1
GENERAL PROVISIONS

1.1 DEFINITIONS

1.1.1 **Acceptance.** "Acceptance" means the point that the Project is formally accepted by the Board of Supervisors and a Notice of Completion is recorded by County.

1.1.2 **Act of God.** "Act of God" means earthquake, natural flood, tornado or other unusually severe natural or weather phenomenon causing Delay to performance of the Work at the Site; provided, however, that precipitation and winds shall not be an Act of God unless it exceeds in any given month the 10-year average of monthly levels as established by the National Oceanic and Atmospheric Administration ("NOAA") according to NOAA's records of measurable precipitation and winds taken at NOAA's recording station located within the Riverside County basin area that is nearest to the Site.

1.1.3 **Addendum.** "Addendum" means written or graphic information (including, without limitation, Drawings or Specifications) issued prior to the Bid Closing Deadline, which modifies or interprets the Bidding Documents by additions, deletions, clarifications or corrections.

1.1.4 **Admitted Surety.** "Admitted Surety" means a surety insurer that is duly certified pursuant to California Insurance Code §995.120 to transact business as a surety in the State of California.

1.1.5 **Allowable Costs.** "Allowable Costs" means those costs listed in Paragraph 7.7.3, below, that are used in calculating Contract Adjustments to the Contract Price.

1.1.6 **Allowable Markups.** "Allowable Markups" means those percentage markups listed in Paragraph 7.7.5, below, used in calculating Contract Adjustments to the Contract Price.

1.1.7 **Alternate.** "Alternate" means a proposed alternative described in the Bidding Documents adding to, or deleting from, the Bidding Documents a particular material, system, product or method of construction.

1.1.8 **Applicable Laws.** "Applicable Laws" means all statutes, ordinances, rules, regulations, policies and guidelines enacted by Governmental Authorities (including, without limitation, Environmental Laws and Disability Laws), codes adopted or promulgated by Governmental Authorities (including, without limitation, building and health and safety codes), lawful orders of Governmental Authorities and common law, including, but not limited to, principles of equity applied by the courts of the State of California, which are in effect at the time the Work is performed.

1.1.9 **Application for Payment.** "Application for Payment" means Contractor's itemized application for Progress Payment or Final Payment prepared, submitted and substantiated in accordance with the requirements of the Contract Documents.

1.1.10 **Architect.** "Architect" means the design professional retained by Contractor that is primarily responsible for the preparation of the Drawings and Specifications for the Project.

1.1.11 **Award.** "Award" means either (1) a minute order duly adopted by the Board of Supervisors approving County's entering into the Construction Contract with Contractor or (2) execution of the Construction Contract by the Clerk of the Board.

1.1.12 **Base Bid.** "Base Bid" means the sum of money stated in a Bid for which the Bidder proposes to perform the Work, exclusive of adjustments for Alternates.

1.1.13 **Bid.** "Bid" means the completed and signed Bid Form and other Bid Submittals submitted by a Bidder to County in response to the Notice Inviting Bids and in accordance with the Instructions to Bidders.

1.1.14 **Bid Amount.** "Bid Amount" means the dollar amount that is used as the basis for determining which Bidder has submitted the lowest Bid price for purposes of Award pursuant to the County's chosen method of Award set forth in Paragraph 4.5.3 of the Instructions to Bidders.

1.1.15 **Bid Bond.** "Bid Bond" means alternative form of Bid Security submitted by a Bidder that consists of a surety bond issued by a Surety.

1.1.16 **Bid Closing Deadline.** "Bid Closing Deadline" means the deadline (date and time) for receipt of Bids by County that is stated in the Bidding Documents, as adjusted by Addendum.

1.1.17 **Bid Form.** "Bid Form" means the form prescribed by the Bidding Documents to be completed and signed by a Bidder showing the dollar amount(s) of its Bid.

1.1.18 **Bid Security.** "Bid Security" means a deposit of cash, certified or cashier's check or bond submitted by a Bidder in accordance with the Bidding Documents guaranteeing that if Award is made to the Bidder, the Bidder will enter into the Construction Contract and furnish the Performance Bond and Payment Bond and other Post-Award Submittals.

1.1.19 **Bid Submittal.** "Bid Submittal" means a document that Bidder is required by the Bidding Documents to submit with or as part of its Bid.

1.1.20 **Bidder.** "Bidder" means a person or entity submitting a Bid for Award of the Construction Contract.

1.1.21 **Bidding Documents.** "Bidding Documents" means the following collection of documents prepared and issued by County relating to the Project:

- .1 Notice Inviting Bids;
- .2 Instructions to Bidders;
- .3 Bid Form;
- .4 Design-Build Contract Between County and Contractor (unsigned);
- .5 General Conditions to Standard Form of Construction Contract Between County and Contractor (Long Form);
- .6 Specifications;
- .7 Plans and Drawings;
- .8 Addenda;
- .9 Reference Documents;
- .10 Safety Program; and
- .11 those documents, or those portions or provisions of documents, that, although not listed in Subparagraph 1.1.22.2 through Subparagraph 1.1.22.10, above, are expressly cross-referenced therein or attached thereto, including, without limitation, all documents submitted by Contractor as part of its Bid or Post-Award Submittals.

1.1.22 **Board of Supervisors.** "Board of Supervisors" means the Board of Supervisors for the County of Riverside.

1.1.23 **Change.** "Change" means a modification, change, addition, substitution or deletion in the Work or in Contractor's means, methods, manner, time or sequence of performing the Work arising from any cause or circumstances, including, without limitation, either directly at the request of County or constructively by reason of other circumstances. Use of the term "Change," in any context, in the Contract Documents shall not be interpreted as implying that Contractor is entitled to a Contract Adjustment on any basis other than as permitted by the terms of the Contract Documents for Compensable Change, Deleted Work or Compensable Delay.

1.1.24 **Change Order.** "Change Order" means a written instrument, signed in accordance with the requirements of the General Conditions, setting forth the agreement of County and Contractor on the terms of a Contract Adjustment.

1.1.25 **Change Order Request.** "Change Order Request" means Contractor's written request for a Contract Adjustment pursuant to Paragraph 7.6.2, below.

1.1.26 **Claim.** "Claim" means a written demand or assertion by Contractor seeking, as a matter of right, an interpretation of contract, payment of money, recovery of damages or other relief. A Claim does not include the following: (1) tort claims for personal injury or death; (2) stop payment notice claims; (3) a determination of the right of County to specific performance or injunctive relief to compel performance; (4) a determination of the right of County to suspend, revoke or limit the Contractor's Prequalification status or rating or to debar Contractor from bidding or contracting with County; or (5) a determination of the right of County under Applicable Laws to terminate the Construction Contract and/or recovery of penalties imposed upon Contractor for violation of statutory obligations under Public Contract Code §4100 *et seq.*

1.1.27 **Close-Out Documents.** "Close-Out Documents" means all Record Documents, warranties, guarantees, technical information, operations manuals, replacement parts, excess and attic stock and other documents (including, without limitation, electronic versions and hard copies) and things required to be submitted by Contractor under the Contract Documents as a condition of Final Completion or Final Payment.

1.1.28 **Compensable Change.** "Compensable Change" means circumstances involving the performance of Extra Work;

.1 that are the result of

(1) Differing Site Conditions,

(2) amendments or additions to Applicable Laws, which amendments or additions are enacted after the Bid Closing Deadline,

(3) a Change requested by County in accordance with the conditions of authorization applicable to Compensable Changes set forth in Article 7, below, or

(4) other circumstances involving a Change in the Work for which Contractor is given under the Contract Documents a specific and express right to a Contract Adjustment to the Contract Price;

.2 that are not caused, in whole or in part, by an act or omission of Contractor or a Subcontractor, of any Tier, constituting negligence, willful misconduct, or violation of an Applicable Law, or by a failure of Contractor or a Subcontractor, of any Tier, to comply with the Contract Documents;

.3 for which a Contract Adjustment is neither prohibited by nor waived under the terms of the Contract Documents; and

.4 that if performed would require Contractor to incur additional and unforeseeable Allowable Costs that would not have been required to be incurred in the absence of such circumstances.

1.1.29 Compensable Delay. "Compensable Delay" means a Delay to the critical path of activities affecting Contractor's ability to achieve Substantial Completion of the entirety of the Work within the Contract Time:

.1 that is the result of

(a) a Compensable Change,

(b) the acts or omissions of County, a County Consultant or a Separate Contractor,

(c) a breach by County of an obligation under the Contract Documents, or

(d) other circumstances involving Delay for which Contractor is given under the Contract Documents a specific and express right to a Contract Adjustment adjusting the Contract Price;

.2 that is not caused, in whole or in part, by an act or omission of Contractor or a Subcontractor, of any Tier, constituting negligence, willful misconduct, or a violation of an Applicable Law, or a failure by Contractor or any Subcontractor, of any Tier, to comply with the Contract Documents; and

.3 for which a Contract Adjustment to the Contract Time is neither prohibited by nor waived under the terms of the Contract Documents.

1.1.30 Construction Change Directive. "Construction Change Directive" means a written instrument signed in accordance with the requirements of Article 7, below, that: (1) directs the performance of a Change that does not involve a Contract Adjustment; (2) establishes a mutually agreed basis for compensation to Contractor for a Compensable Change under circumstances where performance of the Compensable Change needs to proceed in advance of the County performing a full evaluation of the Contractor's rights relative to a Contract Adjustment; or (3) directs performance of Work or a Change with respect to which there exists a dispute or question regarding the terms of a Contract Adjustment.

1.1.31 Construction Contract. "Construction Contract" means the written form of Design-Build Contract Between County and Contractor included in the Bidding Documents signed by County and Contractor.

1.1.32 Construction Schedule. "Construction Schedule" means the detailed, critical path schedule prepared by Contractor in accordance with the requirements of the Contract Documents showing Contractor's plan for performance of the Work within the Contract Time.

1.1.33 Contract Adjustment. "Contract Adjustment" means an adjustment, additive or deductive, to the Contract Price or Contract Time that is permitted by the Contract Documents due to circumstances constituting a Compensable Change, Compensable Delay or Deleted Work.

1.1.34 Contract Documents. "Contract Documents" means the following collection of documents:

.1 Construction Contract;

.2 Addenda;

.3 General Conditions;

.4 Specifications;

.5 Plans and Drawings;

.6 Modifications;

.7 Reference Documents;

- .8 Change Orders;
- .9 Unilateral Change Orders;
- .10 Construction Change Directives;
- .11 Safety Program;
- .12 other documents that comprise exhibits, attachments or riders to the documents listed in preceding Subparagraph 1.1.35.1 through Subparagraph 1.1.35.11, above;
- .13 executed Declaration of Sufficiency of Funds;
- .14 executed Non-Collusion Declaration; and
- .15 if the Bidding Documents limit bidding to Prequalified Bidders, those written representations, obligations or responsibilities made, acknowledged or assumed by the Bidder as part of the applicable Prequalification conducted by County, including, without limitation, any continuing obligations assumed by Contractor to disclose false or misleading information, report changes in ownership or management and comply with minimum safety requirements.

1.1.35 **Contract Price.** "Contract Price" means the dollar amount set forth in the Construction Contract as the total compensation payable by County to Contractor for complete performance by Contractor in accordance with the Contract Documents of the Work and other obligations assumed by Contractor under the Contract Documents.

1.1.36 **Contract Time.** "Contract Time" means the total number of Days set forth in the Construction Contract within which Contractor is obligated to achieve Substantial Completion and/or Final Completion of the Work, as extended or shortened by Contract Adjustments.

1.1.37 **Contractor.** "Contractor" means the person or entity identified by County as the Bidder receiving Award of the Construction Contract. Also referred to as "Design-Builder".

1.1.38 **Contractor Amount.** "Contractor Amount" means the component amount calculated on behalf of Contractor pursuant to Paragraph 15.1.5, below, that is used to determine the total net amount payable to Contractor or County in the event of a partial or full termination or discontinuance of the Work.

1.1.39 **Contractor's Own Expense.** "Contractor's Own Expense" means that Contractor agrees to assume sole responsibility to pay and be responsible for any resulting or associated Loss and Delay, without any Contract Adjustment and without any other form of compensation or reimbursement, of any kind, by County.

1.1.40 **County.** "County" means the County of Riverside, a political subdivision of the State of California.

1.1.41 **County Amount.** "County Amount" means the component amount calculated on behalf of County pursuant to Paragraph 15.1.5, below, that is used to determine the total net amount payable to Contractor or County in the event of a partial or full termination or discontinuance of the Work.

1.1.42 **County Consultant.** "County Consultant" means a consultant engaged by County (or engaged as a subconsultant to a County Consultant) to provide professional advice to County with respect to the design, construction or management of the Project.

1.1.43 **County Review Date.** "County Review Date" means an end date set forth in the Construction Schedule or Submittal Schedule within which County or a County Consultant is to provide information, review documents or render decisions, approvals or disapprovals.

1.1.44 **County Review Period.** "County Review Period" means a period of time set forth in the Construction Schedule or Submittal Schedule within which County or a County Consultant is to provide information, review documents or render decisions, approvals or disapprovals.

1.1.45 **County Risk Manager.** "County Risk Manager" means the individual employee of the County acting as its risk manager.

1.1.46 **County Website.** "County Website" means the website maintained by County at <http://www.rivcoeda.org>.

1.1.47 **Date of Commencement.** "Date of Commencement" means the starting date used for calculation of the Contract Time, and is the date, no earlier than the first working day following issuance of the Notice to Proceed, that is fixed in the Notice to Proceed issued by the County or, if no Notice to Proceed is issued, the Day that the Contractor actually commences Work at the Site in accordance with Paragraph 8.1.1, below.

1.1.48 **Day.** "Day", whether capitalized or not, and unless otherwise specifically provided, means calendar day, including weekends and Holidays.

1.1.49 **Declaration of Sufficiency of Funds.** "Declaration of Sufficiency of Funds" means the declaration, in the form included in the Bidding Documents, required to be submitted by Contractor under circumstances where Contractor has not executed a collective bargaining agreement covering the workers who will be employed to perform the Work.

1.1.50 **Defective Work.** "Defective Work" means materials, equipment, labor, workmanship, construction services or other construction work comprising the Work by Contractor or a Subcontractor that (1) is faulty, omitted, incomplete, or deficient, or (2) does not conform to Applicable Laws, the Contract Documents, or the requirements of any inspection, reference standard, test, code or approval specified in the Contract Documents.

1.1.51 **Delay.** "Delay" means any circumstances involving delay, disruption, hindrance or interference.

1.1.52 **Deleted Work.** "Deleted Work" means Work that is eliminated or its scope or cost reduced pursuant to a Change Order or Unilateral Change Order.

1.1.53 **Department of Industrial Relations.** "Department of Industrial Relations" means The Department of Industrial Relations of the State of California.

1.1.54 **Design Discrepancy.** "Design Discrepancy" means an error, omission, conflict, ambiguity, lack of coordination or noncompliance with Applicable Laws contained in the Bidding Documents, Contract Documents, Reference Documents or other information made available by County to Contractor prior to or after the Bid Closing Deadline.

1.1.55 **Design Documents.** "Design Documents" means all originals, copies and drafts of plans, drawings, tracings, specifications, programs, reports, calculations, presentation materials, models, building information models and other writings or materials containing designs, specifications or engineering information related to the Work or Project prepared by Architect, County Consultants, Contractor, Separate Contractors or Subcontractors including, without limitation, computer aided design materials, electronic data files and paper copies. The term "Design Documents" includes both the written documents and all building and other designs depicted therein.

1.1.56 **Design Intent.** "Design Intent" means the general intended design objectives of the Design Documents prepared by Architect, as described in Paragraph 1.2.1, below.

1.1.57 **Designation of Subcontractors.** "Designation of Subcontractors" means the list of proposed Subcontractors prepared by the Bidder pursuant to California Public Contract Code §§4100 et seq.

1.1.58 **Differing Site Condition.** "Differing Site Condition" means an unforeseen condition that constitutes a basis for Contract Adjustment pursuant to Paragraph 4.3.9, below.

1.1.59 **Director of Facilities Management.** "Director of Facilities Management" means the Director for Facilities Management, or his/her designee.

1.1.60 Disability Laws. "Disability Laws" means applicable federal, state, local or municipal laws, rules, orders, regulations, statutes, ordinances, codes, decrees, or requirements of any Government Authority, which regulate, relate to or impose liability or standards of conduct with respect to, or accessibility for, persons with disabilities, including, without limitation, the Americans with Disabilities Act (42 USCA §§ 12101 et seq.) and the Fair Housing Amendments Act of 1988 (42 USCA §§ 3604 et seq.).

1.1.61 Discovery Date. "Discovery Date", generally used in reference to Contractor's obligation to give written notice of certain facts, conditions or circumstances, means the earlier of the dates that Contractor or any Subcontractor either: (1) discovered such facts, conditions or circumstances; or (2) should have discovered such facts, conditions or circumstances in the exercise of the level of care required by the terms of the Standard of Performance.

1.1.62 Drawings. "Drawings" means graphic and pictorial documents showing the design, location and dimensions of the Project, and generally includes plans, elevations, subparagraphs, details, schedules and diagrams. The term "Drawings" is used interchangeably with "Plans".

1.1.63 Environmental Laws. "Environmental Laws" means all applicable federal, state, local or municipal laws, rules, orders, regulations, statutes, ordinances, codes, decrees and permits or other requirements of any Governmental Authority, which regulate, relate to, or impose liability or standards of conduct concerning any Hazardous Substance (including, without limitation, the use, handling, transportation, production, disposal, discharge or storage thereof), occupational or environmental conditions on, under, or about the Site or Existing Improvements (including, without limitation, soil, groundwater, and indoor and ambient air conditions), environmental protection (natural or manmade resources), or occupational health or industrial hygiene (but only to the extent related to Hazardous Substances on, under, or about the Site or Existing Improvements), as now or may at any later time be in effect, including without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 [42 U.S.C.A. §§ 9601 et seq.]; the Resource Conservation and Recovery Act of 1976 [42 U.S.C.A. §§ 6901 et seq.]; the Clean Water Act (also known as the Federal Water Pollution Control Act) [33 U.S.C.A. §§ 1251 et seq.]; the Toxic Substances Control Act [15 U.S.C.A. §§ 2601 et seq.]; the Hazardous Substances Transportation Act [49 U.S.C.A. §§ 1801 et seq.]; the Insecticide, Fungicide, Rodenticide Act [7 U.S.C.A. §§ 136 et seq.]; the Superfund Amendments and Reauthorization Act [42 U.S.C.A. §§ 6901 et seq.]; the Clean Air Act [42 U.S.C.A. §§ 7401 et seq.]; the Safe Drinking Water Act [42 U.S.C.A. §§ 300f et seq.]; the Solid Waste Disposal Act [42 U.S.C.A. §§ 6901 et seq.]; the Surface Mining Control and Reclamation Act [30 U.S.C.A. §§ 1201 et seq.]; the Emergency Planning and Community Right to Know Act [42 U.S.C.A. §§ 11001 et seq.]; the Occupational Safety and Health Act [29 U.S.C.A. §§ 655 and 657]; the Residential Lead-Based Paint Exposure Act (Title X of the Housing and Community Development Act of 1992) [15 U.S.C.A. §§ 2681 et seq.]; the Lead-Based Paint Poisoning Prevention Act [42 U.S.C.A. §§ 4821 et seq.]; the Federal Endangered Species Act, the California Endangered Species Act, the Migratory Bird Treaty Act, the National Environmental Policy Act, the California Environmental Quality Act, Porter Cologne Water Quality Act (California Water Code §§ 13000 et seq), and all similar federal, state or local laws, rules, orders, regulations, statutes, ordinances, codes, decrees, or requirements.

1.1.64 Escrow Agent. "Escrow Agent" means an entity serving as escrow agent pursuant to California Public Contract Code §22300 in connection with the deposit of securities or retention.

1.1.65 Escrow Bid Documents. "Escrow Bid Documents" means all written documentation and electronic files reflecting the basis for and calculation of a Bid, including, without limitation, estimates, quantity take-offs, price quotations, product data, pricing data, memoranda, narratives, add/deduct sheets and reports (including, without limitation, reports on conditions at, under, or in the vicinity of the Site). The term "Escrow Bid Documents" does not include copies of Bidding Documents if they are not needed to comply with the requirements of the Bidding Documents applicable to submission of Escrow Bid Documents.

1.1.66 Event of Contractor Default. "Event of Contractor Default" means any of the events constituting default by Contractor as set forth in Paragraph 15.1.1, below.

1.1.67 Evidence of Insurance. "Evidence of Insurance" means the statement, completed by Bidder in the form included in the Bidding Documents, evidencing the Bidder's compliance with the insurance requirements of the Bidding Documents.

1.1.68 Excusable Delay. "Excusable Delay" means a Delay, other than a Compensable Delay, to Contractor's ability to achieve Substantial Completion or Final Completion of the Work within the Contract Time that is: (1) not

caused, in whole or in part, by an act or omission of Contractor or a Subcontractor, of any Tier, constituting negligence, willful misconduct, a violation of an Applicable Law or a failure by Contractor or any Subcontractor, of any Tier, to comply with the Contract Documents; (2) unforeseeable, unavoidable and beyond the control of Contractor and the Subcontractors, of every Tier; and (3) the result of a Force Majeure Event. Without limitation to the foregoing, neither the bankruptcy, insolvency nor financial inability of Contractor or a Subcontractor, of any Tier, nor any failure by a Subcontractor, of any Tier, to perform any obligation imposed by contract or Applicable Laws shall constitute a ground for Excusable Delay.

1.1.69 Existing Improvements. "Existing Improvements" means all improvements located on the Site as of the Bid Closing Deadline, whether above or below the surface of the ground, including, but not limited to, existing buildings, utilities, infrastructure improvements and other facilities.

1.1.70 Extra Work. "Extra Work" means labor, materials, equipment, services or other work, not reasonably inferable by Contractor or its Subcontractors from the design and other information set forth in the Bidding Documents, the performance of which requires the expenditure by Contractor of additional and unforeseen Allowable Costs. References to Extra Work shall not be interpreted to mean or imply that Contractor is entitled to a Contract Adjustment unless such Extra Work constitutes a Compensable Change.

1.1.71 Final Completion, Finally Complete. "Final Completion" and "Finally Complete" mean the point at which the following conditions have occurred with respect to the entire Work:

- .1 the Work is fully completed, including all minor corrective, or "punch list," items;
- .2 all permits, approvals and certificates by Governmental Authorities, such as, but not necessarily limited to, a permanent or temporary certificate of occupancy required to occupy and use the Work have been issued free of any conditions that are the result of an act or omission of Contractor or a Subcontractor, of any Tier, constituting negligence, willful misconduct, a violation of an Applicable Law or a failure by Contractor or any Subcontractor, of any Tier, to comply with the Contract Documents;
- .3 the Work and the related portions of the Site have been thoroughly cleared of all construction debris and cleaned in accordance with the requirements of the Contract Documents, including, but not necessarily limited to where applicable, the following: removal of temporary protections; removal of marks, stains, fingerprints and other soil and dirt from painted, decorated and natural-finished woodwork and other Work; removal of spots, plaster, soil and paint from ceramic tile, marble and other finished materials; all surfaces, fixtures, cabinet work and equipment are wiped and washed clean and in an undamaged, new condition; all aluminum and other metal surfaces are cleaned in accordance with recommendations of the manufacturer; and all stone, tile and resilient floors are cleaned thoroughly in accordance with the manufacturer's recommendations and buff dried by machine to bring the surfaces to sheen;
- .4 all conditions set forth in the Contract Documents for Substantial Completion of the Work have been, and continue to be, fully satisfied;
- .5 all conditions pertaining to the Work and required for the release of County's obligations (including, but not limited to, release of County's bond obligations) to Governmental Authorities (including, but not limited to, matters involving grading, flood control, public works, transportation and traffic) have been satisfied; and
- .6 Contractor has delivered to County all Close-Out Documents.

1.1.72 Final Completion Punch List. "Final Completion Punch List" means the list of minor items of Work to be completed or corrected by Contractor for Final Completion.

1.1.73 Final Payment. "Final Payment" means payment by County to Contractor of the entire unpaid balance of the Contract Price due to Contractor following Final Completion.

1.1.74 FM. "FM" means Facilities Management for the County of Riverside.

1.1.75 Force Majeure Event. "Force Majeure Event" means, and is restricted to, any the following: (1) Acts of God; (2) terrorism or other acts of a public enemy; (3) orders of Governmental Authorities (including, without limitation, unreasonable and unforeseeable Delay in the issuance of permits or approvals by Governmental Authorities that are required for the Work); (4) epidemics or quarantine restrictions; (5) strikes and other organized labor action occurring at the Site and the effects thereof on the Work to the extent such strikes and other organized labor action are beyond the control of Contractor and its Subcontractors, of every Tier, and to the extent the effects thereof cannot be avoided by use of replacement workers or implementation of a dual gate system of entry to the Site; (6) unusual shortages in materials that are supported by documented proof that (a) Contractor made every effort to obtain such materials from all available sources, (b) such shortage is due to the fact that such materials are not physically available from single or multiple sources or could have been obtained only at exorbitant prices entirely inconsistent with current rates taking into account the quantities involved and the usual industry practices in obtaining such quantities, and (c) such shortages and the difficulties in obtaining alternate sources of materials could not have been known or anticipated as of the Bid Closing Deadline; or (7) any other cause outside of Contractor's control for which Contractor is not responsible.

1.1.76 Fragnet. "Fragnet" means a contemporaneous, fragmentary scheduling network, which graphically identifies the sequencing of all critical and non-critical new activities and/or activity revisions affected by a Compensable Delay or Excusable Delay with logic ties to all affected existing activities noted on the Construction Schedule, that isolates and quantifies a time impact of a specific issue, determines and demonstrates any such specific Delay in relation to past and/or other current Delays and provides a method for incorporating all Contract Adjustments to the Contract Time into an update of the approved Construction Schedule.

1.1.77 General Conditions. "General Conditions" means the herein set forth general terms and conditions governing performance of the Work.

1.1.78 General Requirements. "General Requirements" means the portion of the Specifications so titled setting forth additional requirements for administration of the Work.

1.1.79 Good Faith Determination. "Good Faith Determination" means a determination made by the Director of Facilities Management or other authorized representative of County, which he/she believes in good faith to be a proper exercise of County's rights and to have a reasonable basis in fact, whether or not such determination is in fact proper, reasonable or correct or adjudged to be so.

1.1.80 Governmental Authority. "Governmental Authority" means the United States, the State of California, the County of Riverside (acting in its regulatory, rather than proprietary, capacity), the City in which the Project is located, any other local, regional, state or federal political subdivision, authority, agency, department, commission, board, bureau, court, judicial or quasi-judicial body, and any legislative or quasi-legislative body, or instrumentality of any of them, which exercises jurisdiction over the Project, Work, Site, Contractor or County, including, without limitation, any Governmental Authority having jurisdiction to review and approve or reject the Contract Documents or the Work based on compliance or non-compliance with Applicable Laws.

1.1.81 Governmental Authority Review Period. "Governmental Authority Review Period" means a period of time set forth in the Construction Schedule or Submittal Schedule for Governmental Authority review, and/or approval, of the Work.

1.1.82 Guarantee To Repair Period. "Guarantee To Repair Period" means the period of time set forth in Section 13.3, below, for repair or replacement of Defective Work.

1.1.83 Hazardous Substance. "Hazardous Substance" means either of the following: (1) any chemical, material or other substance defined as or included within the definition of "hazardous substances," "hazardous wastes," "extremely hazardous substances," "toxic substances," "toxic material," "restricted hazardous waste," "special waste," "contamination" or words of similar import under any Environmental Law, including, without limitation, the following: petroleum (including crude oil or any fraction thereof), asbestos, asbestos-containing materials, polychlorinated biphenyls ("PCBs") and PCB-containing materials, whether or not occurring naturally; or (2) any substance that because of its quantity, concentration or physical or chemical characteristics poses a significant present or potential hazard to human health and safety or to the environment, and which has been determined by any Governmental Authority to be a hazardous waste or hazardous substance.

1.1.84 **Holiday.** "Holiday" means a Day recognized by County as being a legal holiday for its staff and employees.

1.1.85 **Indemnitees.** "Indemnitees" means those persons or entities listed in Paragraph 3.18.1, below, as the "Indemnitees".

1.1.86 **Inspector of Record.** "Inspector of Record" means a person designated by the County to perform inspections on behalf of the County, who may be an employee or an independent consultant to County.

1.1.87 **Installation Subcontractor.** "Installation Subcontractor" means a Subcontractor who performs a portion of the Work that includes providing substantial, rather than minor and incidental, services for the installation of temporary or permanent materials, equipment or facilities at the Site.

1.1.88 **Instructions to Bidders.** "Instructions to Bidders" means the portion of the Bidding Documents setting forth the requirements to be followed by Bidders in preparing and submitting Bids.

1.1.89 **Intellectual Property Rights.** "Intellectual Property Rights" means all intellectual property rights, including, without limitation, patent, trademark, trade dress, copyright, industrial design rights, priority rights and trade secrets.

1.1.90 **Key Personnel, Key Persons.** "Key Personnel" and "Key Persons" mean those individuals employed by Contractor as described in Paragraph 3.8.1, below, and any replacements thereto approved by County, whose personal performance is deemed of the essence to the Construction Contract.

1.1.91 **Loss, Losses.** "Loss" and "Losses" mean any and all economic and non-economic losses, costs, liabilities, claims, damages, cost escalations, actions, judgments, settlements, expenses, fines, penalties and punitive damages including, without limitation, actual attorney's fees, expert and non-expert witness fees, arbitrator and arbitration fees, court costs (statutory and non-statutory), and mediation and mediator fees.

1.1.92 **Modification.** "Modification" means a document, other than a Change Order or Construction Change Directive, approved and signed by County and Contractor after execution of the Construction Contract, agreeing to alter, amend or modify the Contract Documents.

1.1.93 **Mold.** "Mold" means mold, mildew, spores or other microorganisms of any type, nature or description, or any by-product thereof, the presence of which poses an actual or potential threat to human health, including, without limitation, any species of organisms of the kingdoms of fungi or mycota, including yeasts, smuts, ruts, mildews, mold and mushrooms, or any microbial contamination, either airborne or surface, which arises out of or is related to the presence of fungi or spores (including, without limitation, aspergillus, cladosporium, penicillium and stachybotrys chartarum).

1.1.94 **Non-Collusion Declaration.** "Non-Collusion Declaration" means the form, so titled, required by California Public Contract Code §7106 and the Bidding Documents to be submitted by Bidder with its Bid.

1.1.95 **Notice Inviting Bids.** "Notice Inviting Bids" means the notice issued by or on behalf of County inviting submission of Bids for the Project.

1.1.96 **Notice Inviting Prequalification Statements.** "Notice Inviting Prequalification Statements" means the formal notice issued by County inviting contractors to participate in County's process for Prequalification of Bidders.

1.1.97 **Notice of Change.** "Notice of Change" means a formal written notice required to be submitted by Contractor pursuant to Paragraph 7.6.1, below, notifying County of circumstances that Contractor believes may give rise to a Contract Adjustment.

1.1.98 **Notice of Completion.** "Notice of Completion" means a "notice of completion" as defined in California Civil Code §9204.

1.1.99 Notice of Delay. "Notice of Delay" means a formal written notice prepared and submitted by Contractor pursuant to Paragraph 8.2.2, below, notifying County of circumstances that Contractor believes may give rise to a Contract Adjustment to the Contract Time for Excusable Delay or Compensable Delay or a Contract Adjustment to the Contract Price for Compensable Delay.

1.1.100 Notice of Final Completion. "Notice of Final Completion" means the written notice by County confirming the date of actual Final Completion.

1.1.101 Notice of Intent to Award. "Notice of Intent to Award" means the written notice by or on behalf of County stating County's intent to Award the Construction Contract.

1.1.102 Notice of Substantial Completion. "Notice of Substantial Completion" means the written notice by County confirming the date of actual Substantial Completion.

1.1.103 Notice to Proceed. "Notice to Proceed" means the written notice issued by County to Contractor to begin the Work.

1.1.104 Payment Bond, Performance Bond. "Payment Bond" and "Performance Bond" mean the surety bonds required to be provided by Contractor pursuant to Article 12, below.

1.1.105 Plans. "Plans" means the graphic and pictorial portions of the Contract Documents prepared by Architect or its Subconsultants showing the design, location and dimensions of the Work, including, without limitation, plans, elevations, details, schedules and diagrams. The term "Plans" is used interchangeably with "Drawings".

1.1.106 Post-Award Submittals. "Post-Award Submittals" means the documents described in the Bidding Documents that the apparent successful Bidder is required to submit after opening of Bids as a condition of Award.

1.1.107 Pre-Bid Conference. "Pre-Bid Conference" means the conference, specified in the Notice Inviting Bids as either mandatory or optional, held prior to the Bid Closing Deadline for the purpose of, without limitation, introducing the Bidders to the Project, and which conference may, or may not, include a review of the Site.

1.1.108 Prequalification. "Prequalification" means a process for Prequalification of contractors for bidding that is conducted by County pursuant to California Public Contract Code §20101 or as otherwise permitted by Applicable Laws.

1.1.109 Prequalification Documents. "Prequalification Documents" means the collection of documents issued to and submitted by individuals or entities pursuant to a Prequalification conducted by County.

1.1.110 Prequalified Bidder. "Prequalified Bidder" means a contractor that is prequalified as part of a Prequalification conducted by County pursuant to Public Contract Code §20101.

1.1.111 Product Data. "Product Data" means illustrations, standard schedules, charts, instructional brochures, diagrams and other information furnished by Contractor to illustrate a material, product or system for the Work.

1.1.112 Progress Payment. "Progress Payment" means a monthly payment of a portion of the Contract Price prior to Final Completion based on Contractor's progressed performance of the Work.

1.1.113 Project. "Project" means the improvements comprising, or necessary or appurtenant to the use of, the work of improvements described generally in the Bidding Documents, of which the Work may be the entirety of such improvements or only a part.

1.1.114 Project Documents. "Project Documents" means all writings (hard copy and electronic) in the possession of Contractor at the Site or elsewhere that relate in any way to the Project or Work.

1.1.115 Project Team. "Project Team" means County, Architect, County Consultants, Contractor, the Subcontractors, the Separate Contractors, Inspectors of Record and other firms or individuals retained by County, or

retained by others with County's approval, participating in the planning, programming, design, construction or inspection of the Work.

1.1.116 Reasonable Order of Magnitude Estimate. "Reasonable Order of Magnitude Estimate" means a general estimate prepared by Contractor, or jointly by Contractor and County, without the benefit of complete or definitive pricing by Subcontractors, of the projected additional cost and time associated with Contractor's performance of a particular item or items of Extra Work or Deleted Work described in a Construction Change Directive. Unless otherwise agreed to in writing between County and Contractor, a Reasonable Order of Magnitude Estimate does not constitute either an authorization or agreement by County to any Contract Adjustment or a guarantee or promise by Contractor with respect to the amount of any Contract Adjustment that may be associated with a Compensable Change or Deleted Work.

1.1.117 Record Documents. "Record Documents" means the collection of documents assembled and prepared by Contractor (including, without limitation, the Record Drawings and Specifications) showing the condition of the Work as actually built.

1.1.118 Record Drawings, Record Specifications. "Record Drawings" and "Record Specifications" mean the Drawings and Specifications marked by Contractor to show the condition, location and placement of the Work as actually built, including, without limitation, the locations of mechanical, electrical, plumbing or similar portions of the Work that are depicted diagrammatically in the Drawings.

1.1.119 Reference Documents. "Reference Documents" means reports, studies, surveys and other information provided by County for Contractor's review and consideration in preparing its Bid, including, without limitation, information describing the Site (including surface or subsurface conditions), Existing Improvements or Hazardous Substances at the Site.

1.1.120 Request for Extension. "Request for Extension" means a formal written request submitted by Contractor pursuant to [Paragraph 8.2.3](#), below, setting forth the justification and support for Contractor's request for a Contract Adjustment to the Contract Time.

1.1.121 Request for Information. "Request for Information" means a written request by Contractor for clarification of what it perceives to be a discrepancy in the Contract Documents (including, without limitation, information in the Contract Documents constituting a Design Discrepancy or a variance between the information in the Bidding Documents or Contract Documents and conditions at the Site or in Existing Improvements).

1.1.122 Safety Program. "Safety Program" means the formal, written program prepared by Contractor setting forth detailed procedures and precautionary measures for protecting persons and property from injury or damage.

1.1.123 Samples. "Samples" means physical examples that, when approved by County and Architect, illustrate materials, equipment or workmanship by which the Work is to be evaluated and judged as part of the Submittal process.

1.1.124 Schedule of Values. "Schedule of Values" means a detailed, itemized breakdown of the Contract Price, which provides for an allocation of the dollar values to each of the various parts of the Work.

1.1.125 Self-Performed Work. "Self-Performed Work" means Work related to a Compensable Change or Deleted Work that is performed or to be performed by Contractor's own laborers who are employed by Contractor, rather than by the employees of a Subcontractor, using materials and equipment purchased by Contractor directly from a supplier or manufacturer.

1.1.126 Separate Contractor. "Separate Contractor" means a contractor, subcontractor, supplier or vendor under contract directly to County to provide services, materials, labor, equipment or other work to the Project.

1.1.127 Shop Drawing. "Shop Drawing" means a drawing, diagram, schedule and other data specially prepared for the Work by Contractor or a Subcontractor to illustrate some portion of the Work.

1.1.128 **Site.** "Site" means: (1) the parcel of land owned by County on which the Project is to be constructed and such additional parcels as may be purchased by County for such construction; (2) all areas adjacent to such parcels that may be used by Contractor or the Subcontractors for staging, storage, parking or temporary offices; and (3) all land areas, both private and public, adjacent to such parcels on which Work is required to be performed under the Contract Documents, Applicable Laws or permits relating to the Project.

1.1.129 **Specifications.** "Specifications" means the portion of the Contract Documents consisting of the written requirements for materials, equipment, standards and workmanship for the Work and performance of related services.

1.1.130 **Standard of Performance.** "Standard of Performance" means the general standard governing Contractor's performance of its obligations under the Construction Contract and General Conditions as set forth in Section 2.2 of the Construction Contract.

1.1.131 **State Water Resources Control Board.** "State Water Resources Control Board" means the State Water Resources Control Board of the State of California.

1.1.132 **Storm Water Permit.** "Storm Water Permit" means any applicable storm water, urban runoff or statewide general NPDES permit issued by the State of California or the United States pursuant to the provisions of the Clean Water Act (Title 33U.S.C. §§1251 et seq.) and/or Porter Cologne Water Quality Control Act (California Water Code §§13000 et seq.) and including any related regulations issued by the State of California or the United States.

1.1.133 **Sub-Bidder.** "Sub-Bidder" means a person or entity that submits a bid to a Bidder for some portion of the Work that is to be performed by that person or entity acting as a first-Tier Subcontractor.

1.1.134 **Subcontractor.** "Subcontractor" means a person or entity that has a contract to perform a portion of the Work, including without limitation, subcontractors, sub-subcontractors, suppliers, equipment operators, manufacturers and vendors, of any and every Tier.

1.1.135 **Submittal.** "Submittal" means a Shop Drawing, Product Data, Sample, detailed design, exemplar, fabrication and installation drawing, list, graph, operating instruction or other document required to be submitted by Contractor under the Contract Documents.

1.1.136 **Submittal Schedule.** "Submittal Schedule" means the schedule prepared by Contractor showing the timing for submission and review of Submittals during construction.

1.1.137 **Substantial Completion, Substantially Complete.** "Substantial Completion" and "Substantially Complete" mean the point at which the following conditions have occurred with respect to the entire Work or a portion of the Work designated by County in writing to be Substantially Completed prior to Substantial Completion of the entire Work:

.1 such Work is sufficiently and entirely complete in accordance with Contract Documents so that such Work can be fully enjoyed and beneficially occupied and utilized by County for its intended purpose (except for minor items which do not impair County's ability to so occupy and use such Work);

.2 all permits, approvals and certificates by Governmental Authorities, such as, but not necessarily limited to, a permanent or temporary certificate of occupancy required to occupy and use such Work have been issued free of any conditions that are the result of an act or omission of Contractor or a Subcontractor, of any Tier, constituting negligence, willful misconduct, a violation of an Applicable Law or a failure by Contractor or any Subcontractor, of any Tier, to comply with the Contract Documents; and

.3 all building systems included in such Work are operational as specified, all designated or required inspections and certifications by Governmental Authorities have been made and posted and instruction of County's personnel in the operation of the systems has been completed.

1.1.138 **Substantial Completion Punch List.** "Substantial Completion Punch List" means the list of items of Work to be completed or corrected by Contractor for Substantial Completion.

1.1.139 **Substitution.** "Substitution" means a material, product or item of material or equipment proposed by the Bidder or Contractor in place of that specified in the Bidding Documents or Contract Documents.

1.1.140 **Substitution Request Form.** "Substitution Request Form" means the form, so titled, that is included in the Bidding Documents for use by the Bidders when requesting a Substitution.

1.1.141 **Supplementary Conditions.** "Supplementary Conditions" means those portions of the Specifications that supplement, by addition, modification or deletion, a specific portion of the General Conditions.

1.1.142 **Surety.** "Surety" means Contractor's surety(ties) issuing the Bid Bond, Performance Bond or Payment Bond.

1.1.143 **Tier.** "Tier" means the contractual level of a Subcontractor with respect to Contractor. For example, a "first-tier" Subcontractor is under contract with Contractor. A sub-subcontractor under contract with a first-tier Subcontractor is in the "second tier," and so on. Use of the phrase "of every Tier", or similar phraseology, in the Contract Documents shall not be interpreted as implying that other provisions of the Contract Documents, where such phrase is not used, are intended to be limited in application to only the first Tier or to only certain other Tiers of Subcontractors.

1.1.144 **Time Impact Analysis.** "Time Impact Analysis" means a written report evaluating the impact of an Excusable or Compensable Delay, which shall include, at a minimum, the following: (1) a narrative description of the Delay and its impact on the critical path to achievement of a Substantial Completion or Final Completion of the Work or a portion of the Work designated by County within the Contract Time; (2) a Fragnet; (3) the number of Days of extension sought by Contractor as a Contract Adjustment to the Contract Time; (4) a computation of the Days of Compensable Delay multiplied times the liquidated damages payable to Contractor pursuant to Section 4.3 of the Construction Contract, if any, sought by Contractor; (5) a statement that Contractor has complied with the requirements of the General Conditions for written notice of Delays, along with the dates and copies of such notices; (6) the measures taken by Contractor and Subcontractors to prevent or minimize the Delay; and (7) Contractor's recommendations for reordering or re-sequencing the Work to avoid or minimize further Delay.

1.1.145 **Unexcused Delay.** "Unexcused Delay" means any Delay that is not a Compensable Delay or Excusable Delay, including, without limitation, the following: (1) Delay caused by an act or omission of Contractor or a Subcontractor, of any Tier, constituting negligence, willful misconduct, a violation of an Applicable Law or a failure by Contractor or any Subcontractor, of any Tier, to comply with the Contract Documents; (2) Delay for which Contractor has failed to provide a timely and complete Notice of Delay or Request for Extension; or (3) Delay associated with any circumstances where the costs or risk associated with such circumstances are designated in the Contract Documents as being at Contractor's risk or Contractor's Own Expense.

1.1.146 **Unilateral Change Order.** "Unilateral Change Order" means a writing signed by County in accordance with Article 7, below, in which County unilaterally sets forth its Good Faith Determination of the undisputed portion of an otherwise disputed Contract Adjustment.

1.1.147 **Work.** "Work" means all labor, materials, equipment, services, permits, licenses, taxes and other things necessary for Contractor to perform its obligations under the Contract Documents, including, without limitation, any Changes requested by County, in accordance with the Contract Documents and all Applicable Laws. The Work may constitute the whole or a part of the Project.

1.1.148 **Worker's Compensation Certificate.** "Worker's Compensation Certificate" means the statement, completed by Bidder in the form included in the Instruction to Bidders, evidencing the Bidder's compliance with the worker's compensation insurance requirements of the Bidding Documents and Applicable Laws.

1.2 CORRELATION, INTERPRETATION AND INTENT OF CONTRACT DOCUMENTS

1.2.1 **Design Intent.** The intent of the Contract Documents is for Contractor to provide all items necessary to produce a work of improvement that is complete as a whole and that is, in all of its parts, suitable for use and occupancy for its intended purpose, including, without limitation, all equipment, casework, mechanical, electrical and similar devices of whatever nature, completely installed, hooked-up and made fully operational and functional.

1.2.2 Complementary. Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all. Any Work called for on the Drawings and not mentioned in the Specifications, or vice versa, shall be performed as though fully set forth in both.

1.2.3 Technical Words. Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction industry meanings and non-technical words and abbreviations are used in accordance with their commonly understood meanings.

1.2.4 Trade Names. It is not the intention of the Contract Documents to go into detailed descriptions of any materials or methods commonly known to the trade under a "trade name" or "trade term." The mere mention or notation of such "trade name" or "trade term" shall be considered a sufficient notice to the Contractor that it will be required to complete the Work so named with all its appurtenances according to first-class practices of the trade.

1.2.5 Incidental Items. The naming of any material or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and labor therefor, in accordance with first-class practices of the trade involved, unless specifically noted otherwise.

1.2.6 Drawing Dimensions. Figured, derived or numerical dimensions on scale Drawings shall govern over Drawings without figured dimensions. The Drawings shall not be scaled to determine dimensions, and (except in the case of diagrammatic Drawings) dimensions shall be calculated from figures shown on the Drawings. Obvious discrepancies between scale and figured dimensions, not marked "not to scale," must be brought to the Architect's attention before proceeding with the Work affected by the discrepancy. Contractor shall carefully check and compare all portions of the Drawings and Specifications so as to correctly interpolate the intended dimensions for any portion of the Work that is not explicitly dimensioned in the Contract Documents.

1.2.7 Drawings, Specifications. In general, the Drawings will show dimensions, positions, and kind of construction and the Specifications will define materials, quality and standards. Work not particularly shown, detailed, marked or specified shall be the same as similar parts that are shown, detailed, marked or specified.

1.2.8 Typical Work. Work not particularly shown, detailed, marked or specified shall be the same as similar parts that are shown, detailed, marked or specified.

1.2.9 Divisions of the Work. All the Work mentioned or indicated in the Contract Documents shall be performed by Contractor as part of the Work unless specifically indicated in the Contract Documents to be done by others. The organization of the Specifications into divisions, sections and articles and the arrangement of the Drawings shall not control Contractor in dividing the Work among the Subcontractors or in establishing the extent of the Work to be performed by the Subcontractors.

1.2.10 Applicable Laws. Compliance with Applicable Laws shall be considered as a part of the Work.

1.2.11 Interpretations of Laws. In the event of a conflict between or among Applicable Laws governing performance of the Work, the more stringent shall govern. Contractor assumes, at Contractor's Own Expense, sole responsibility for, and the risk associated with, interpretations of Applicable Laws made by Contractor not predicated on written orders issued by Governmental Authorities that by their terms are applicable to the Project, including, without limitation, interpretations or assumptions made by Contractor based on decisions, orders or approvals (written or unwritten) issued by or on behalf of Governmental Authorities in connection with work on other projects or properties near or in the general vicinity of the Site.

1.2.12 Modifiers. The Contract Documents may omit modifying words such as "all" and "any," and articles such as "the" and "an." If a modifier or an article is not included in one statement and appears in another, it is not intended to affect the interpretation of either statement. The use of the word "including," when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters whether or not non-limiting language (such as "without limitation," "but not limited to," or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement.

1.2.13 Singular, Gender, Captions. When appropriate to the context, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include any other gender, and each shall include corporation, partnership, trust or other legal entity whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only as a matter of reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

1.2.14 Cross-References. Any cross-references indicated between various paragraphs or other portions of the Specifications, Drawings or other Contract Documents are provided for the convenience of Contractor and shall not be deemed to be all-inclusive.

1.2.15 Diagrammatic Design. Drawings and diagrams for mechanical, plumbing, electrical, fire sprinkler, fire alarm and low voltage Work shall be considered as diagrammatic only and shall not be used for any structural guidance or physical layout. Because such Drawings are diagrammatic, Contractor shall be responsible to provide any and all numbers and lengths of fittings, wire, conduit, connections, attachments or similar materials or devices needed to complete the Work, without Contract Adjustment, whether or not they exceed the numbers of pieces or the lengths indicated by such Drawings. Contractor is solely responsible to carefully plan and coordinate in advance, by means of coordination drawings prepared by Contractor or a Subcontractor, the installation of any Work shown diagrammatically and shall do so in such a manner as to make maximum use of the space available and anticipate and avoid wherever possible conflict and interferences among such portions of the Work and with other portions of the Work, including structural members.

1.2.16 Demolition. Existing Improvements at the Site of which no specific description is made in the Contract Documents, but which could be reasonably assumed to interfere with the satisfactory completion of the Work, shall be removed and disposed of by Contractor without Contract Adjustment. If Contractor is unsure whether a specific Existing Improvement at the Site which is not specifically described in the Contract Documents should be removed and disposed of, Contractor shall promptly ask the County whether such Existing Improvement is to be removed or remain in place, and shall comply with any directive given in response.

1.2.17 Omissions. Items missing from the Contract Documents shall nevertheless be provided by the Contractor, without Contract Adjustment, to the extent reasonably inferable from the Contract Documents as being necessary to satisfy the Design Intent.

1.2.18 Conflicts. Notwithstanding the provisions of Paragraph 1.2.19, below, in the event of conflict between any of the Contract Documents, the provision placing a more stringent requirement or greater burden on the Contractor or requiring the greater quantity or higher quality material or workmanship shall prevail, unless otherwise directed by the County in writing.

1.2.19 Order of Precedence. Conflicts that cannot be resolved in accordance with the rules of interpretation set forth elsewhere in this Section 1.2, shall be interpreted in accordance with the following order of precedence (the first being the highest order of precedence):

.1 Applicable Laws (provided, however, and notwithstanding Subparagraph 1.2.19.10, below, where the Contract Documents or manufacturer's recommendations or specifications require standards higher than those of Applicable Laws, the Contract Documents or manufacturer's recommendations or specifications shall control);

.2 Change Orders, Unilateral Change Orders and Construction Change Directives;

.3 Addenda;

.4 Construction Contract;

.5 Supplementary Conditions;

.6 General Conditions;

.7 General Requirements;

.8 Specifications;

.9 Drawings, subject to the following: (1) large scale plans and details take precedence over small scale Drawings in all cases; (2) full scale Drawings have precedence over both large and small scale Drawings in all cases; (3) detailed Plans and/or Drawings shall have precedence over general Plans and/or Drawings; (4) architectural and structural Drawings take precedence over electrical and mechanical Drawings in regard to location and arrangement of fixtures, outlets, and equipment; and (5) electrical and mechanical Drawings take precedence in describing and specifying equipment and in describing the diagrammatic requirements;

.10 standard and reference specifications which include industry norms, such as, but not limited to, ANSI and ASTM; and

.11 Reference Documents.

1.2.20 Conditions Precedent. Wording used in the Contract Documents indicating that a right of the Contractor or an obligation of the County is subject to or conditioned upon the occurrence of a condition or event, whether or not such condition or event is within the control of Contractor, County or others and whether or not such condition or event is expressly stated to be a "condition precedent", shall be understood and interpreted to mean that the stated condition or event is a condition precedent to the existence, arising, performance and exercise of such right or obligation.

1.3 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

1.3.1 Property of County. Subject to the provisions of Paragraph 2.4.4, below, all Design Documents, Contract Documents and Project Documents that are prepared by Contractor or a Subcontractor, of any Tier, for use in connection with the Project, including any designs, building designs or other depictions underlying or shown in them, and the Intellectual Property Rights thereto, shall be deemed the sole and exclusive property of County and ownership thereof is irrevocably vested in County, whether the Project is executed or not.

1.3.2 Assignment of Rights. Contractor shall, without further consideration, obtain any and all Intellectual Property Rights in the Project Documents and Design Documents prepared by Contractor or any Subcontractor, of any Tier, for use in connection with the Project, including any designs, building designs or other depictions underlying or shown in them, free and clear of any liens or other encumbrances, claims or rights of third parties, transfer such rights, if necessary in writing, to County and cooperate with County in securing and registering such rights, such that County shall own all Intellectual Property Rights and any other tangible and/or intangible property rights associated therewith. Such transfer and assignment will be effective for the entire duration of the copyrights and include, but are not be limited to, all rights in related plans, specifications, documentation, derivative works and moral rights.

1.3.3 Contractor's Warranty. Contractor represents and warrants that the Project Documents and Design Documents prepared by Contractor or any Subcontractor for use on the Project, and the use of such Project Documents in the ordinary course, are free of any claim of infringement or any other violation of any Intellectual Property Right or other right of any third party.

1.3.4 Non-Exclusive License. Without derogation of County's rights under this Section 1.3, Contractor and Subcontractors, of every Tier, are granted a limited, non-exclusive license, revocable at will of County, to use and reproduce applicable portions of the Design Documents, Contract Documents and Project Documents as appropriate to and for use in the execution of the Work and for no other purpose.

1.3.5 Reproduction. Contractor shall do all reproduction and distribution of such reproducible prints of Contract Documents and Design Documents as are necessary for the complete pricing and performance of the Work, including, without limitation, all Changes. The costs of such reproduction shall be at Contractor's Own Expense.

1.3.6 **Delivery to County.** All Design Documents and Contract Documents (including originals and copies), and one (1) copy of all other Project Documents, in the possession of Contractor or Subcontractors shall be delivered to County upon the earlier of Final Completion of the Work or termination of the Construction Contract; provided, however, that Contractor shall have the right to retain one (1) copy of the Contract Documents and Submittals as a permanent record.

1.3.7 **Subcontractors.** Contractor shall take all necessary steps to ensure that a provision is included in all contracts with Subcontractors, of every Tier, who perform Work on the Project protecting and preserving County's rights as set forth in this Section 1.3.

ARTICLE 2 COUNTY RIGHTS AND OBLIGATIONS

2.1 INFORMATION, APPROVALS AND SERVICES REQUIRED OF COUNTY

2.1.1 **Legal Descriptions.** County shall furnish, within a reasonable time after written request by Contractor, a legal description of the Site and information describing legal limitations affecting the Site that are recorded with applicable Governmental Authorities, such as, but not limited to, easements.

2.1.2 **Permits and Fees.** County shall secure and pay for only those permits and fees which are expressly stated to be the responsibility of County under the Contract Documents. County shall pay for all hook-up fees (not including "tap fees", which are the responsibility of Contractor pursuant to Paragraph 3.14.3, below) in order to establish a new account with a utility provider.

2.1.3 **County Approvals.** Information, approvals and decisions required of County or a County Consultant for which a County Review Period or County Review Date is included in the Construction Schedule that is approved by County shall be provided in accordance with the Construction Schedule. If a County Review Period or County Review Date is not set forth in the Construction Schedule approved by County, then such information, approvals and decisions shall be provided upon written request by Contractor without unreasonable Delay. Notwithstanding the foregoing, failure by County or a County Consultant to provide any information, approvals or decisions shall not be considered as a basis for Contract Adjustment to the Contract Time unless and until, and in calculating a Contract Adjustment any Delay or extension of the Contract Time resulting from a late-issuance of such information, approval or decision shall not commence until after:

.1 in the case of information, approval or decision for which there is a County-approved County Review Period or County Review Date in the County-approved Construction Schedule, seven (7) Days have passed since the County and the individual from whom such information, approval or decision is sought have received from Contractor a written notice containing all the following:

- (1) a detailed description of the information, approval or decision required;
- (2) a statement that the County Review Period or County Review Date has expired or

passed; and

(3) a statement, prominently displayed, that: "PURSUANT TO PARAGRAPH 2.1.3 OF THE GENERAL CONDITIONS, THE FAILURE TO PROVIDE THE REQUESTED INFORMATION, APPROVAL OR DECISION WITHIN 7 CALENDAR DAYS FROM THIS NOTICE MAY RESULT IN A REQUEST FOR A CONTRACT ADJUSTMENT"; or

.2 in the case of information, approval or decision for which there is no County Review Period or County Review Date set forth in the County-approved Construction Schedule, thirty (30) Days have passed since the County and the individual from whom such information, approval or decision is sought have received from Contractor a written notice that includes the statements set forth Clauses (1) and (2) of Subparagraph 2.1.3.1, above, and that includes a statement, prominently displayed, that: "PURSUANT TO PARAGRAPH 2.1.3 OF THE GENERAL CONDITIONS, THE FAILURE TO PROVIDE THE REQUESTED INFORMATION, APPROVAL OR DECISION WITHIN 30 CALENDAR DAYS FROM THIS NOTICE MAY RESULT IN A REQUEST FOR A CONTRACT ADJUSTMENT".

2.1.4 Approvals. Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of County or any other Project Team member, or by tests, inspections or approvals required or performed by persons other than the Contractor.

2.1.5 Non-Specified Items. County reserves the right to approve materials and sources of supply of materials that are not specified in the Contract Documents and that are used for the performance of the Work.

2.2 COUNTY'S RIGHT TO STOP THE WORK

If Contractor fails to correct Defective Work as required by Section 13.2 of these General Conditions, fails to perform the Work in accordance with the Contract Documents or violates any Applicable Law, County may immediately order Contractor to stop the Work, or any portion thereof, until the cause for such direction has been eliminated by Contractor. Contractor shall immediately comply with such notice at Contractor's Own Expense. Nothing stated herein or elsewhere in the Contract Documents shall be interpreted as placing upon County a duty or responsibility to Contractor or any other party to exercise its right to stop the Work.

2.3 COUNTY'S RIGHT TO CARRY OUT THE WORK

If Contractor fails to carry out the Work in accordance with the Contract Documents, fails to provide sufficient labor, materials, equipment, tools and services to maintain the Construction Schedule, or otherwise fails to comply with any requirement of the Contract Documents, and fails to cure such failure in the manner required by Subparagraph 15.1.1.4, below, County may correct such failure. In such case, County shall be entitled to recover from Contractor or deduct from payments then or thereafter due Contractor for any Loss resulting from such failure, including compensation for the additional services and expenses of County, County Consultants and others whose services are reasonably required and made necessary thereby. If payments then or thereafter due Contractor are not sufficient to cover such amounts, Contractor shall promptly pay the amount of the shortfall to County.

2.4 ACCOUNTING, RECORDS AND AUDIT

2.4.1 Accounting System. Contractor shall exercise such controls as may be necessary for proper financial management of the Work. Such accounting and control systems shall comply with prevailing custom and practice for similar projects, be satisfactory to County and shall include preservation of the books and records described in Paragraph 2.4.2, below, subject to Contractor's obligations under Paragraph 1.3.6, above, for a period of ten (10) years after Final Completion of the Work, or for such longer period as may be required by Applicable Laws.

2.4.2 Books and Records. Contractor shall keep, and shall require provisions to be included in all contracts entered into by Subcontractors, of every Tier, requiring the Subcontractors, of every Tier, to keep, full and detailed books, records, information, materials and data, of every kind and character (hard copy, as well as computer readable data if it exists) that have any bearing on or pertain to any matters, rights, duties or obligations relating to the Project, Work or Construction Contract, including, without limitation, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, change orders, change order requests, estimates, field orders, construction change directives, schedules, requests for information, diaries, logs, reports, shop drawings, samples, exemplars, drawings, specifications, invoices, delivery tickets, receipts, vouchers, cancelled checks, memoranda, accounting records; job cost reports, job cost files (including complete documentation of negotiated settlements), backcharges, general ledgers; documentation of cash and trade discounts earned, insurance rebates and dividends, and other documents relating in any way to any claims, charges or time extensions asserted by Contractor or any of the Subcontractors, of any Tier, or relating to any credits, rebates or discounts owing to County.

2.4.3 Inspection and Copying. Contractor shall allow, and shall require provisions to be included in all contracts entered into by Subcontractors, of every Tier, allowing, County and the auditor for the State of California (and the authorized representative(s), auditors, attorneys and accountants of each) upon twenty-four (24) hours notice to Contractor, full access to inspect and copy all its aforesaid books and records at a location within the Southern California area. Such right of audit may be exercised by either County or the auditor for the State of California as often as reasonably necessary to verify Contractor's continuing compliance with the Contract Documents.

2.4.4 Confidential Information. Nothing stated in this Section 2.4 or elsewhere in the Contract Documents shall be interpreted as a waiver by Contractor or any Subcontractor of any rights of privilege or confidentiality that are

provided for by Applicable Law nor as authorizing the inspection of books and records that contain information concerning estimating means or methods that is not, in whole or part, relevant to a charge or demand being asserted by Contractor or a Subcontractor involving Extra Work, Deleted Work, Delay or a Claim.

2.4.5 Withholding of Payment. In addition to and without limitation upon County's other rights and remedies for breach, including any rights of County to withhold payment that are set forth elsewhere in the Contract Documents, County shall have the right, exercised in its sole discretion, to withhold from any payment due to Contractor under an Application for Payment a sum of up to ten percent (10%) of the total amount set forth in such Application for Payment until Contractor and the Subcontractors have complied with any outstanding and unsatisfied obligation under this Section 2.4. Upon compliance with this Section 2.4, any such monies withheld shall be released to Contractor.

2.4.6 Specific Performance. Contractor agrees that any failure to provide access to books and records as required by this Section 2.4 will result in irreparable harm and prejudice to County and shall, without the necessity of posting of any bond or undertaking, be specifically enforceable by means of a mandatory injunctive order (temporary, preliminary, provisional or otherwise) issued by a court of competent jurisdiction, which order the County and Contractor hereby consent to being issued based upon affidavits and without the necessity of oral testimony.

2.5 COUNTY FURNISHED MATERIALS

2.5.1 Supply by County. County shall have the right to furnish materials, products or equipment directly for processing and incorporation by Contractor in lieu of Contractor providing materials, products or equipment specified in the Contract Documents to be provided by Contractor as part of the Work.

2.5.2 Deleted Work. If the materials, products or equipment provided by County pursuant to Paragraph 2.5.1, above, then a Change Order shall be executed deleting such materials, products or equipment from the Work along with a Contract Adjustment reducing the Contract Price in the manner provided for in Article 7, below, applicable to Contract Adjustments for Deleted Work.

2.5.3 Delivery Deadlines. Without limitation to Contractor's obligations under Article 8, below, upon receipt of written instruction by County of its intent to provide materials, products or equipment pursuant to this Section 2.6, Contractor shall notify County promptly in writing of any deadlines within which such materials, products or equipment must be received at the Site in order to avoid Delay.

2.5.4 Delivery to Site. Contractor shall, upon their delivery to the Site, properly receive and unload materials, products or equipment furnished by County pursuant to this Section 2.5.

2.5.5 Care, Custody and Control. Contractor assumes full and unconditional responsibility for care, custody and control of the materials, products or equipment that are furnished by County pursuant to this Section 2.5, whether or not they have been accepted by County, and assumes sole responsibility for any subsequent loss, injury or damage thereto occurring prior to Final Completion.

2.5.6 Notice of Deficiencies. Contractor shall carefully inspect any materials, products or equipment furnished by County pursuant to this Section 2.5 and immediately notify County of any defect or deficiency in such materials, products or equipment or any nonconformity in such materials, products or equipment with the requirements of the Contract Documents or with the requirements of the other documentation provided to Contractor setting forth the conditions of County's purchase. Contractor shall not accept any materials, products or equipment furnished by County with respect to which Contractor has provided such notice of defect, deficiency or non-conformity unless and until instructed to do so in writing by County.

2.5.7 Incorporation in Work. Contractor shall, as part of the Work and without Contract Adjustment, provide any and all processing, fabrication, cutting, shaping, fitting, assembly and installation of materials, products or equipment furnished by County pursuant to this Section 2.5 in full compliance with the requirements of the Contract Documents and the manufacturer's instructions and recommendations.

2.6 COUNTY INSTALLED ITEMS

Contractor shall notify County, a reasonable time in advance, of the Contractor's scheduled dates for installation of items that are specified in the Contract Documents to be placed on, attached to or incorporated into the Work by County or Separate Contractors. In the event that Contractor fails to do so, then Contractor shall be responsible, in addition to any amounts due to County for liquidated damages, to reimburse County for costs of storage or rental of temporary replacement items until such time as the Work is in a condition suitable for such items to be placed, affixed or incorporated.

2.7 COUNTY'S ADDITIONAL RIGHTS

The rights stated in this Article 2 are in addition to and not in limitation of any other rights of County granted elsewhere in the Contract Documents or under Applicable Laws.

ARTICLE 3 CONTRACTOR PERFORMANCE

3.1 CONTRACTOR STATUS

3.1.1 Independent Contractor. Contractor is, and shall at all times be deemed to be, an independent contractor and is wholly responsible for the performance of the obligations required of it by the terms of the Contract Documents.

3.1.2 Agents, Employees. Contractor wholly assumes responsibility for the acts and omissions of its agents and employees and the agents and employees of each Subcontractor, of every Tier, as they relate to the Work. Contractor, its agents and employees, shall not be entitled to any rights or privileges of County's employees and nothing contained in the Contract Documents and no course of conduct shall be construed as creating the relationship of employer and employee, or principal and agent, between County and any agent or employee of Contractor or any Subcontractor. County shall have the right, but not the obligation, to monitor the employment and other activities of Contractor and the Subcontractors to determine compliance with the terms of the Contract Documents.

3.1.3 Licenses. Contractor and the Subcontractors, of every Tier, shall maintain, such contracting, professional and business licenses as may be required by Applicable Laws for the duration of time that Contractor is performing the Work under the Contract Documents, including the period of any warranty provided covering all or any portion of the Work.

3.1.4 Subcontractors. Contractor is responsible to County for acts and omissions of the Subcontractors and their agents and employees and other persons performing portions of the Work under a contract with a Subcontractor, of any Tier.

3.1.5 Design Services. Contractor shall provide professional services if such services are expressly, or by reasonable implication, required by the Contract Documents for a portion of the Work or are required in order for Contractor to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Professional design services or certifications so required of Contractor shall be furnished by design professionals exercising the Standard of Care. Certification by a properly licensed design professional, including such professional's signature and seal, shall appear on all drawings, calculations, specifications, certifications and other documents prepared by such professional. Submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted. County and County Consultants shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals.

3.2 REVIEW OF DOCUMENTS, SITE AND EXISTING IMPROVEMENTS

3.2.1 Contractor's Duty of Review. Contractor's submission of its Bid and execution of the Construction Contract constitutes its representation, acknowledgement and agreement that it had sufficient time, access and opportunity prior to the Bid Closing Deadline to conduct a careful and thorough examination, to its satisfaction, of:

.1 the Bidding Documents, Contract Documents, Reference Documents and other information provided by County to Contractor prior to the Bid Closing Deadline concerning the Project, Site or Existing Improvements;

.2 the visible conditions at the Site and its surroundings, visible conditions of Existing Improvements and their existing uses by County or the public, routes of ingress and egress, and local conditions in the vicinity of the Site (including, without limitation, sources and availability of labor, materials and equipment);

.3 the status of any construction at the Site concurrently under construction; and

.4 all information concerning visible and concealed conditions above and below the surface of the ground at the Site and in Existing Improvements (including, without limitation, surveys, reports, data, as-built drawings of Existing Improvements and utility sources, capacities and locations) that was either (1) provided by County to Contractor or other Bidders (including, but not limited to, the Bidding Documents and Reference Documents) or (2) reasonably available to Contractor for review in the public records of the County of Riverside or the City in which the Project is located.

3.2.2 Contract Adjustments.

.1 **Differing Site Conditions.** Except as otherwise provided in Subparagraph 3.2.3, below, the Contractor's right to a Contract Adjustment in the event Contractor encounters conditions at the Site or in Existing Improvements that vary from those indicated by the Contract Documents or other information that was either reviewed by Contractor or that Contractor was given the opportunity to review prior to the Bid Closing Deadline shall be governed exclusively by Paragraph 4.3.9, below, pertaining to Differing Site Conditions.

.2 **Design Discrepancies.** Except as otherwise provided in Subparagraph 3.2.3, below, and subject to the Contractor's compliance with the other provisions of the Contract Documents governing the Contractor's right to a Contract Adjustment (including, without limitation, Article 7 and Article 8, below), Contractor shall be entitled to a Contract Adjustment due to Design Discrepancies, subject to the following conditions and limitations:

(1) **Compensable Change.** There shall be no Contract Adjustment to the Contract Price for Extra Work that the Contractor is required to perform as a result of a Design Discrepancy unless all of the following conditions have been met prior to Contractor or any Subcontractor performing any portion of the Work involving or affected by such Design Discrepancy:

(a) the circumstances giving rise to such Extra Work conform to all of the requirements of Subparagraph 1.1.29.2 through Subparagraph 1.1.29.4, above, applicable to Compensable Changes;

(b) Contractor has submitted to County Request for Information in compliance with Paragraph 3.2.5, below, seeking clarification of such Design Discrepancy;

(c) Contractor has submitted to County a timely and complete Notice of Change in accordance with Article 7, below, describing such Extra Work in detail;

(d) Contractor has received a Construction Change Directive signed by County in accordance with Article 7, below, directing that Contractor perform the portion of the Work in question; and

(e) unless otherwise provided in such Construction Change Directive, Contractor has submitted to County a Change Order Request in accordance with the requirements of Article 7, below, setting forth the particulars of its request for Contract Adjustment on account of such Extra Work.

(2) **Compensable Delay.** There shall be no Contract Adjustment to the Contract Price or Contract Time for Delay as a result of a Design Discrepancy unless all of the following conditions have been met prior to Contractor or any Subcontractor performing any portion of the Work involving or affected by such Design Discrepancy:

(a) if the Delay is the result, in whole or in part, of Extra Work, all of the requirements of Subparagraph 3.2.2.2 (1), (a) through (e), above, have been met;

(b) the circumstances giving rise to such Delay conform to all of the requirements of Subparagraph 1.1.30.2 and Subparagraph 1.1.30.3, above, applicable to Compensable Delay; and

(c) Contractor has submitted to County a timely and complete Notice of Delay and a timely and complete Request for Extension in accordance with Article 8, below, setting forth the particulars of its request for Contract Adjustment on account of such Compensable Delay.

(3) **Differing Site Conditions.** The Contractor's right to a Contract Adjustment as a result of variances between (a) the Contract Documents or other documents or information described in Paragraph 3.2.1, above, that, prior to the Bid Closing Deadline was either reviewed by Contractor or was available to Contractor for review prior to the Bid Closing Deadline and (b) conditions at the Site or in Existing Improvements shall, notwithstanding the fact that the circumstances asserted by Contractor as a basis for such Contract Adjustment may involve, relate to or arise out of a Design Discrepancy, be governed by the provisions of the Contract Documents setting forth the Contractor's right to Contract Adjustments on the grounds of Differing Site Conditions.

3.2.3 WAIVER BY CONTRACTOR.

CONTRACTOR AGREES THAT IT SHALL NOT BE ENTITLED TO, AND HEREBY CONCLUSIVELY WAIVES, ANY RIGHT TO CONTRACT ADJUSTMENT, AS WELL AS THE RIGHT TO ANY OTHER OR FURTHER RECOURSE OR RIGHT OF RECOVERY FROM COUNTY, ON ACCOUNT OF LOSSES OR DELAYS THAT ARE A RESULT OF EITHER A DIFFERING SITE CONDITION OR A DESIGN DISCREPANCY, IF PRIOR TO THE BID CLOSING DEADLINE SUCH DIFFERING SITE CONDITION OR DESIGN DISCREPANCY WAS:

(1) **DISCOVERED BY CONTRACTOR AND CONTRACTOR, NOTWITHSTANDING SUCH DISCOVERY, FAILED TO REPORT SUCH DIFFERING SITE CONDITION OR DESIGN DISCREPANCY TO COUNTY IN WRITING PRIOR TO THE BID CLOSING DEADLINE;**

(2) **ALTHOUGH NOT ACTUALLY DISCOVERED BY CONTRACTOR PRIOR TO THE BID CLOSING DEADLINE WAS REASONABLY DISCOVERABLE BY CONTRACTOR UNDER THE STANDARD OF PERFORMANCE SPECIFIED IN THE CONSTRUCTION CONTRACT, INCLUDING, WITHOUT LIMITATION, A DIFFERING SITE CONDITION OR DESIGN DISCREPANCY THAT WAS OVERLOOKED BY CONTRACTOR DUE TO A FAILURE BY CONTRACTOR TO FULLY FAMILIARIZE ITSELF PRIOR TO THE BID CLOSING DEADLINE WITH ANY OF THE DOCUMENTS, INFORMATION OR CONDITIONS REFERRED TO IN PARAGRAPH 3.2.1, ABOVE.**

3.2.4 **Continuing Obligation.** In addition and without limitation to Contractor's obligations under Paragraph 3.2.1, above, or elsewhere in the Contract Documents, Contractor shall have the continuing obligation until Final Completion to promptly report to County, by means of submission by Contractor of a Request for Information that complies with the requirements of Paragraph 3.2.5, below, any and all of the following:

.1 information contained in the Bidding Documents, Contract Documents, Reference Documents or other documentation that was either reviewed by Contractor or that Contractor was given the opportunity to review prior to the Bid Closing Deadline, as well as any visible conditions at the Site, in Existing Improvements or in the vicinity of the Project, that Contractor knows, or in the exercise by Contractor of its duties under the Standard of Performance should have known, may render a portion of the Work in any respect, wholly or partially, unsuitable or incomplete to meet the requirements of the Contract Documents, the Design Intent or Applicable Laws, and

.2 conditions in the Work that constitute Defective Work or that cause or are likely to cause any other portion of the Work to be Defective Work.

Without limitation to County's other rights under the Contract Documents, any portion of the Work, Existing Improvements or the work of Separate Contractors or County's own forces requiring replacement, repair or correction due to a failure by Contractor or any Subcontractor, of any Tier, to comply with its continuing obligation under this

Paragraph 3.2.4 shall be promptly replaced, repaired or corrected to County's satisfaction, at Contractor's Own Expense.

3.2.5 Requests for Information.

.1 Time for Submittal. Requests for Information shall be submitted no later than three (3) Days after the date Contractor learns of the circumstances giving rise to the question contained in the Request for Information. Requests for Information shall be submitted by or through the Contractor and not directly by Subcontractors.

.2 Content. Each Request for Information shall, in addition to the Contractor's specific question or request, include the following:

(1) a detailed description of the circumstances giving rise to the Contractor's request or question, including, without limitation, any related Design Discrepancy;

(2) Contractor's request for clarification, including, without limitation, any request for further detailing or correction of the Contract Documents; and

(3) a statement of whether Contractor believes it is entitled to a Contract Adjustment by reason of the circumstances described.

.3 Form. Contractor shall submit Requests for Information using forms provided or approved by County.

.4 Unnecessary, Multiple Requests. Contractor shall carefully review, coordinate and consolidate (where appropriate to prevent piecemeal submission) Requests for Information (whether originating with Contractor or the Subcontractors) prior to submitting them in order to eliminate unnecessary or duplicative requests.

.5 Responses. Responses to Requests for Information shall be furnished with reasonable promptness so as to not unreasonably Delay progress of the Work; provided, however, that the timing of a response by the County or a County Consultant to a Request for Information shall not constitute grounds for a Contract Adjustment unless Contractor has complied with the requirements set forth in this Paragraph 3.2.5 and, if applicable, Paragraph 2.1.3, above.

.6 Back Charges by County. County shall have the right to deduct from payments due to Contractor sums expended by County for the services of the Inspectors of Record or County Consultants due to a failure by Contractor to comply with this Paragraph 3.2.5.

.7 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO SUBMIT A REQUEST FOR INFORMATION IN ACCORDANCE WITH AND UNDER CIRCUMSTANCES IN WHICH A REQUEST FOR INFORMATION WAS REQUIRED BY THIS PARAGRAPH 3.2.5 SHALL RESULT IN CONTRACTOR WAIVING ITS RIGHT TO A CONTRACT ADJUSTMENT ON ACCOUNT OF ANY LOSS OR DELAY THAT COULD HAVE BEEN AVOIDED IF SUCH REQUEST FOR INFORMATION HAD BEEN PROPERLY PREPARED AND TIMELY SUBMITTED.

3.2.6 Correction of Work. Contractor shall, at Contractor's Own Expense, correct or replace in accordance with the direction of County any portion of the Work that is performed by Contractor or a Subcontractor knowing that it involves, or that Contractor or Subcontractor in the exercise of reasonable care and diligence should have known involves, a portion of the Contract Documents that contains an error, omission, conflict, ambiguity, lack of coordination or noncompliance with Applicable Laws, without first notifying and obtaining the written approval of County.

3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

3.3.1 **General Obligation.** Contractor shall provide competent, fully qualified personnel to supervise, administer, manage and direct the Work, competently and efficiently, at all times devoting their best skill and attention to perform the Work in accordance with the Contract Documents.

3.3.2 **Supervisory Staff.** Contractor shall employ a competent project manager, superintendent, scheduler, forepersons and necessary assistants during performance of the Work. Contractor's superintendent and forepersons shall be present at the Site at all times that the Work is in progress and at any time that any employee of Contractor or a Subcontractor is present at the Site. Contractor's project manager and superintendent shall, unless excused from attendance by the County, attend all job meetings. Contractor's project manager and superintendent must be able to fluently read and write in English. Contractor's superintendent shall not perform the Work of any trade, pick up materials, or perform any Work not directly related to the supervision of the Work and shall be available twenty-four (24) hours a Day, seven (7) Days a week, to respond to emergencies.

3.3.3 **County Supplementary Personnel.** Without limitation upon any of the rights or remedies of the County under the Contract Documents or under Applicable Laws, in the event that Contractor fails to have personnel on Site to supervise the Work, the County shall have the right, but not the obligation, upon twenty-four (24) hours' telephonic or email notice by the County to Contractor, to provide such supervision on a temporary basis and to deduct from the sums owing to Contractor the actual costs of such temporary supervision. Contractor shall, notwithstanding the County's providing such temporary supervision, remain solely responsible for all actions and omissions of its personnel and of the Subcontractors.

3.3.4 **Means, Methods, Procedures.** Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and coordinating all portions of the Work, unless the Contract Documents specify other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, Contractor shall nonetheless be fully and solely responsible for the adequacy and safe implementation of such means, methods, techniques, sequences or procedures. If Contractor believes that such specified means, methods, techniques, sequences or procedures may not be safe or adequate, Contractor shall give written notice to County and shall not proceed with that portion of the Work without further written instruction from County. In response to such notice, County may order Contractor to improve the character or increase the efficiency of the means, methods, techniques, sequences or procedures employed, and Contractor shall conform to such order; but the failure of County to order such improvement or increase of efficiency will neither relieve Contractor from its sole responsibility for safety at the Site nor relieve Contractor from its obligation to perform the Work in accordance with the Contract Documents and Applicable Laws.

3.4 LABOR, MATERIALS AND EQUIPMENT

3.4.1 **Costs of Work.** Contractor shall provide and pay for labor, materials, tools, equipment, machinery, water, heat, utilities, transportation, facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether incorporated or to be incorporated into the Work.

3.4.2 **Coordination.** Contractor shall provide supervision sufficient to ensure proper coordination for the timely and efficient performance and completion of the Work.

3.4.3 **Field Conditions.** Before commencing the Work or any activities on the Site, Contractor shall take field measurements and verify field conditions and carefully compare such field measurements and conditions with the information in the Contract Documents and other information obtained by or available to Contractor.

3.4.4 **Layout.** Contractor is solely responsible for (1) the accurate layout of all portions of the Work, (2) the accuracy of the Project lines and levels, (3) erection of the Work square, plumb, level, true to line and grade, in the exact plane, and to the correct elevation and (4) sloping of surfaces to drain as indicated by the Contract Documents, or, if not indicated, as needed to provide for adequate drainage.

3.4.5 **Materials, Equipment**

.1 Delivery, Storage, Inventory. Materials and equipment shall be: (1) furnished in ample quantities and at such times as to ensure uninterrupted progress of the Work; and (2) if located on the Site, properly stored and protected as reasonable and necessary, or as directed by County, to prevent Loss from any foreseeable cause, including, without limitation, theft. In the event that County gives direction as to the location for storage or protection of materials or equipment on the Site, Contractor shall nonetheless remain solely responsible for its safe and secure storage and protection. No part of any such stored materials and equipment shall be removed from its place of storage except for immediate installation in the Work. Contractor shall keep an accurate inventory of all such stored materials and/or equipment in a manner satisfactory to County.

.2 Purchases. Contractor shall place orders for materials and/or equipment as specified so that delivery of same may be made without Delay to the Work. Contractor shall, upon request from County, furnish to County documentary evidence showing that orders have been placed. County reserves the right in the event Contractor fails, within three (3) Days after receipt of written notice by County to Contractor to comply with the requirements of this Subparagraph 3.4.5.2, to comply with the requirements of this Subparagraph 3.4.5.2, to deduct the costs paid or payable by County associated with such purchases from payments otherwise owing to Contractor. Contractor shall, if requested by County, accept assignment of any such contracts entered into by County without a Contract Adjustment.

.3 Title. No material, supplies or equipment for the Work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies and equipment installed or incorporated in the Work and agrees upon Final Completion to deliver the Work, including the premises, land, improvements and appurtenances on or to which the Work is placed, located or affixed, to County free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any of the Work shall have any right of lien upon the Site, or any Existing Improvement or appurtenance thereon, except that (1) nothing stated in this Subparagraph 3.4.5.3 shall be interpreted as a waiver by Contractor or any Subcontractor of its right under Applicable Laws to serve a stop payment notice for Work that is not paid for by County as required under the terms of the Contract Documents; and (2) Contractor may install metering devices or other equipment of utility companies or political subdivisions, title to which may be retained by such utility company or political subdivision, provided that in the event of installation of any such metering device or utility equipment, Contractor shall advise County as to the owner, and the precise location, thereof.

.4 Substitutions. No substitution of materials, equipment, articles, processes or other items of the Work required under the Contract Documents will be made without written approval of County, which approval may be granted or denied in the sole and absolute discretion of County. With respect to any such substitution made or requested by Contractor, neither the occurrence of a substitution made or requested by Contractor nor the approval or disapproval by County of a substitution that is made in accordance with this Subparagraph 3.4.5.4 shall give rise to any right of Contractor to a Contract Adjustment. Contractor shall, notwithstanding County's approval, remain solely responsible for the sufficiency and suitability of all substitutions requested by Contractor and approved, or otherwise made, by Contractor.

.5 Parts List. Contractor will provide a printed parts list for all items which might be subject to replacement and for which parts lists are either expressly required by the Contract Documents or customarily provided according to usual commercial practices.

.6 Manuals. As part of its obligation for submission of Record Documents, four (4) hard copies and one (1) electronic version of operations and maintenance manuals shall be prepared and transmitted by Contractor to County prior to and as a condition of Final Completion. Final Payment will not be due until County has received all such manuals and all other manuals covering the Work that are either required to be provided by the terms of the Contract Documents or if not required are customarily provided according to usual commercial practices applicable to the portion of Work involved. Operating instructions will be included within the equipment manuals and will state all information necessary for County to operate, use, maintain and service the equipment fully and efficiently.

.7 Start Up. Contractor will be responsible for start-up of all systems and equipment purchased as part of the Work and has included sufficient amounts in its Bid to cover contingencies arising out of the start-up of such systems and equipment. Contractor will comply fully with each manufacturer's specifications and instructions. Systems and equipment specified to be furnished with manufacturer's supervision of start-up will be placed in operation only under such supervision.

3.5 CONTRACTOR'S WARRANTY

3.5.1 **General Warranty.** In addition to other warranties and guarantees required by the Contract Documents, Contractor shall, and hereby does, warrant and guarantee that: (1) the Work will conform to the requirements of Contract Documents, including, without limitation, any performance standards that are part thereof; (2) all Work for which there is not a specific requirement, criteria, specification or standard set forth in the Contract Documents will conform to the Standard of Performance; (3) all labor, equipment, materials and other items of Work will be when installed new and free of liens, claims and security interests; (4) without limitation to the other requirements of this warranty, all labor, installation and workmanship will be performed in a good and workmanlike manner; and (5) all labor, materials, equipment, services and work shall be free of defects for a period of one (1) year after Final Completion. If required by County, Contractor shall furnish satisfactory evidence as to the kind and quality of services, labor, installation, materials and equipment used. Manufactured items installed in the Work, unless otherwise specifically stated in the Contract Documents, are to be installed in strict accordance with manufacturer's current printed instructions.

3.5.2 **Repair, Replacement.** Without limitation upon the County's other rights or remedies under the Contract Documents or Applicable Laws, for a period of 1 year after Final Completion, any and all Work that, for reasons other than (1) ordinary wear and tear or (2) abuse or neglect by persons or entities other than the Contractor or the Subcontractors, is not in conformance with the warranties or guarantees required by the Contract Documents or Applicable Laws shall be repaired or replaced, together with the repair or replacement of any other Work, Existing Improvements or the work of the Separate Contractors, the County's own forces or others, which may be removed, displaced or damaged in so doing. The Contractor shall notify the County in writing upon completion of such repair or replacement. In the event of failure by the Contractor to commence and pursue with diligence said replacement or repair within ten (10) Days after being notified by the County, the County is hereby authorized to proceed with such replacement and repair as the County deems necessary and expedient and to charge such costs to Contractor at Contractor's Own Expense.

3.5.3 **Not a Limitation.** The warranties stated in this Section 3.5 are in addition to any other warranties or guarantees that are required under any other provision of the Contract Documents or Applicable Laws. Nothing stated in this Section 3.5 shall be interpreted as a limitation upon the County's rights under any warranties or guarantees provided for under any other provision of the Contract Documents or under Applicable Laws that afford the County greater rights than the rights afforded to County under this Section 3.5.

3.5.4 **Assignment.** Contractor does hereby unconditionally and irrevocably assign to County all warranties and guarantees issued or made by any Subcontractor, of any Tier (including, without limitation, any manufacturer, supplier and distributor) in connection with the Work. Such assignment shall not relieve Contractor of, or otherwise limit, any of its obligations contained in the Contract Documents, including, without limitation, the general responsibility and liability of Contractor for a breach by a Subcontractor (including, without limitation, any manufacturer, supplier and distributor, of any Tier) of a warranty or guarantee given by such Subcontractor in connection with the Work but only during the 1-year warranty express warranty period beginning at Final Completion.

3.5.5 **Close-Out.** Unless sooner requested by County, Contractor shall furnish to County, as part of the Close-Out Documents and as a condition to Final Payment, all written guarantees or warranties that are required by the terms of the Contract Documents. All such guarantees and warranties shall be: (1) in writing; (2) indexed and bound; (3) accompanied by such certifications and instruction materials as may be required by the Contract Documents; and (4) issued to County or assignable by their terms, and in fact assigned, to County.

3.6 TAXES

3.6.1 **Payment by Contractor.** Contractor shall pay, at Contractor's Own Expense, all local, state and federal taxes, including, without limitation, all sales, consumer, business license, use and similar taxes on materials, labor or other items furnished for the Work or portions thereof provided by Contractor or the Subcontractors, of all Tier, all taxes arising out of its operations under the Contract Documents and all benefits, insurance, taxes and contributions for social security and unemployment insurance which are measured by wages, salaries or other remuneration paid to Contractor's employees. If under federal excise tax law any transaction hereunder constitutes a sale on which a federal excise tax is imposed, and the sale is exempt from such excise tax because it is a sale to a state or local government, then County, upon request, will execute documents necessary to show: (1) that County is a political subdivision of the

State for the purposes of such exemption; and (2) that the sale is for the exclusive use of County. No excise tax for such materials shall be included in any price (including, without limitation, the Bid) submitted by Contractor for the Work or for Changes in the Work.

3.6.2 Tax Exempt Projects. If applicable to the Project, Contractor shall comply with Applicable Laws concerning tax-exempt construction projects.

3.6.3 Records of Taxes. Contractor and the Subcontractors shall keep sufficient records to verify the amount of sales and use taxes paid. Copies shall be submitted with each monthly Application for Payment. Failure to keep or submit such records, resulting in the inability of County to claim a refund for taxes for such materials, shall render Contractor liable to County for the amount of such tax refund.

3.7 PERMITS, FEES AND LEGAL NOTICES

3.7.1 Permits. Contractor shall obtain and pay for all permits and approvals that are not stated in the Contract Documents to be the responsibility of the County. Such permits and approvals that are the responsibility of the Contractor may include local building or land use permits, California Department of Fish and Game Streambed Alteration Agreements (Section 1600 et seq.), California Department of Fish and Game collection permits, U.S. Army Corps of Engineers 404 fill and dredge authorization, Clean Water Act Section 401 authorization (managed by the local California Regional Water Quality Control Boards) land owner agreements, or other regulatory permits or approvals required for the implementation of the Project. All permits, licenses and certificates obtained by Contractor shall be delivered to County prior and as a condition to Final Completion and Contractor's right to Final Payment.

3.7.2 Applicable Laws, Notices. Contractor shall comply with, and give notices required by, Applicable Laws bearing on performance of the Work.

3.7.3 Bonds, Undertakings. Contractor shall, without Contract Adjustment, procure and obtain all bonds required of the County or the Contractor by the municipality in which the Project is located or by any other public or private body with jurisdiction over the Project. In connection with such bonds, the Contractor shall prepare all applications, supply all necessary back-up material and furnish the surety with any required personal undertakings. The Contractor shall also obtain and pay, without Contract Adjustment, all charges for all approvals for street closings, parking meter removal and other similar matters as may be necessary or appropriate from time to time for the performance of the Work.

3.7.4 Notice of Violations. Contractor shall immediately notify County in writing of any instruction received from County, or any other Project Team member that, if implemented, would cause a violation of any Applicable Law.

3.7.5 Governmental Authority Approvals. Where the Contract Documents state, or Applicable Laws require, that materials, processes or procedures must be approved by a Governmental Authority, Contractor shall be responsible for satisfying the requirements and obtaining the approval of such Governmental Authority.

3.8 CONTRACTOR'S PERSONNEL

3.8.1 Key Persons. Contractor's employees acting as project manager, scheduler and superintendent constitute Key Persons. Individuals acting as Key Persons who are not already identified in Contractor's Post-Award Submittals shall be identified in writing to County prior to commencement of the Work.

3.8.2 Background Check. Contractor shall perform, prior to commencing Work on the Site, a thorough background check of each of the Key Persons and shall not, without prior written approval of County, employ any person to act as a Key Person if such background check, or other information known to Contractor, discloses a felony conviction or other matter which casts any reasonable doubt on the competency, reliability or honesty of such person.

3.8.3 Project Manager. The Key Person acting as project manager shall be deemed to have full authority to contractually bind Contractor, including, without limitation, the authority to bind Contractor to the terms of Contract Adjustments.

3.8.4 **Transfer.** Contractor's Key Personnel are deemed of essence to the Construction Contract. No Key Person shall, for so long as he/she is employed by Contractor, be transferred to any other project nor any of his/her responsibilities reassigned at any time during performance of the Work without the prior written approval of County, which approval may be granted or withheld in County's sole and absolute discretion but which shall not be unreasonably withheld.

3.8.5 **Removal.** County shall have the right, at any time, to direct the removal and replacement of any Key Person if his/her performance is determined by County, in its sole and absolute discretion, to be unsatisfactory.

3.8.6 **Replacement.** Any individual proposed by Contractor as a replacement for a Key Person must be approved in advance by County, such approval not to be unreasonably withheld, after submission by Contractor to County of complete information concerning such individual's experience and qualifications.

3.8.7 **Communications.** Important communications by Key Persons shall be confirmed in writing by Contractor. Other communications by Key Persons shall be confirmed on written request in each case.

3.8.8 **Contact Information.** Contractor shall provide to County, prior to the start of the Work, telephone numbers where Key Persons can be reached 24-hours a day, 7 Days a week.

3.8.9 **Signatures.** Prior to commencing the Work, Contractor shall submit to County a facsimile of the signatures of the Key Person acting as project manager, as well as any other representatives of Contractor with authority to sign on behalf of and contractually bind Contractor.

3.8.10 **Exclusion from Site.** Contractor shall at all times maintain good discipline and order at the Site among its employees and the employees of the Subcontractors. Any person in the employ of Contractor or any of the Subcontractors, of any Tier, whom County deems, in its sole and absolute discretion, incompetent, unfit, intemperate, troublesome or otherwise undesirable shall be excluded from the Site and shall not again be employed on the Site except with written approval of County.

3.9 **CONTRACTOR'S CONSTRUCTION SCHEDULE**

3.9.1 **Preparation.** Within twenty-one (21) Days after issuance by County of the Notice of Intent to Award, the Contractor shall prepare and submit a Construction Schedule for the Work, both in hard copy and electronically, for the County's approval. The Construction Schedule shall in all respects conform to and be consistent with the time requirements for the Project set forth in the Construction Contract.

3.9.2 **Format.** The Construction Schedule shall be in the form of a critical path progress schedule that shows, in graphic form, a plan for performance of the Work within the Contract Time. It shall be prepared, using Primavera P3, as a time-scaled bar chart showing: (1) continuous flow from left to right and activities and milestones that are critical to Substantial Completion and Final Completion of the Work; (2) identification of "float"; and (3) a clearly highlighted critical path. Durations and specific calendar days shall be clearly and legibly shown for the early and late start and finish of each activity. With the exception of County Review Periods and Governmental Authority Review Periods, any activity with more than fifteen (15) Days in duration will be segmented into fifteen (15) Day increments. No more than ten percent (10%) of the activities shall be shown as critical. Techniques or methods designed to suppress depiction of available float are strictly prohibited.

3.9.3 **Detail.** Activities shown in the Construction Schedule shall be in sufficient detail to demonstrate a practical plan to complete the design, engineering, fabrication and construction within the Contract Time and shall, at a minimum, include the following:

- .1 the start and finish date of each activity;
- .2 the anticipated percent of completion at the end of each month;
- .3 the weighted labor value expressed as a percentage of the total labor cost of the Work for each activity;

- .4 the final manpower curves by trade;
- .5 the anticipated purchase and delivery of major materials and equipment;
- .6 the County's occupancy requirements;
- .7 receipt and incorporation of materials, products or equipment to be furnished by County (if any);
- .8 County Review Periods and County Review Dates that are acceptable to and approved by County;
- .9 Governmental Authority Review Periods; and
- .10 the activities identified as being on the critical path to Substantial Completion and Final Completion of the Work.

3.9.4 Updates. Throughout the performance of the Work, weekly updates shall be delivered, in hard copy and, if required by County, in an electronic form satisfactory to County. In addition, Contractor shall regularly prepare and submit to County short term, three (3) week "look-ahead" schedules generated from the Construction Schedule approved by County. Except to the extent permitted by Contract Adjustment to the Contract Time approved by County in a duly executed Change Order or Unilateral Change Order, in no event shall the Contractor's updates or "look ahead" schedules alter the dates for Substantial Completion or Final Completion set forth in the Construction Schedule approved by County.

3.9.5 Governing Schedule. The governing schedule for the Work shall be the updated Construction Schedule approved by the County. Unless otherwise directed in a writing signed by County, no other schedule shall be used or relied upon by the Contractor or its Subcontractors in planning or performing the Work or in connection with any request for a Contract Adjustment to the Contract Time.

3.9.6 Submittal Schedule. Within twenty-one (21) Days after the receipt by the Contractor of the Notice of Intent to Award, the Contractor shall prepare and submit, in accordance with the Contract Documents, a Submittal Schedule for the County's approval. The Submittal Schedule shall be coordinated with the Construction Schedule and allow time for review of the Submittals as may be required by the Contract Documents, or if none is required, a reasonable time for such review. Contractor shall keep the Submittal Schedule current and updated in the same manner as required for updating of the Construction Schedule.

3.9.7 Schedule Responsibility. Contractor is and shall remain solely responsible, notwithstanding the County's review or approval thereof, for the accuracy, suitability and feasibility of all schedules it prepares for the Project, including, without limitation, the Construction Schedule, Submittal Schedule, "look ahead" schedules, recovery schedules and any updates thereof.

3.9.8 Condition of Payment. Compliance by Contractor with the requirements of this Section 3.9 and the other provisions of the Contract Documents pertaining to preparing, submitting, revising and updating the Construction Schedule and Submittal Schedule is a condition to County's obligation to make payment to Contractor. Recognizing that scheduling is a continuing, cumulative and recurring obligation, failure by County or to assert a right to withhold payment under this Paragraph 3.9.8 due to a noncompliance by Contractor with its schedule obligations shall not waive or diminish the County's right to withhold or disapprove of future payments on account of such prior, or any other past or future, noncompliance of the same or similar nature.

3.9.9 Scheduling by County. Without limitation to County's other rights under the Contract Documents, if Contractor fails after written notice by County to perform any part of its obligations relating to scheduling, County shall have the right, but not the obligation, to retain one or more schedule consultants to perform, in whole or in part, the Contractor's obligations or supplement the scheduling services provided by Contractor and to reimburse County for the costs of such consultant services by withholding such costs from payments to Contractor.

3.10 DOCUMENTS AT SITE, REPORTING, MEETINGS

3.10.1 Documents at Site

.1 **Contract Documents, Submittals.** Contractor shall at all times while performing Work at the Site maintain, in good order, at the Site: (1) one legible set of the permitted Contract Documents; (2) one legible copy of the current version of the other Contract Documents; (3) one legible and current version of approved Shop Drawings, Product Data, Samples and other Submittals; (4) one approved Storm Water Pollution Prevention Plan (SWPPP); and (5) one copy of all reports prepared pursuant to the Mitigation, Monitoring, and Reporting Program (MMRP) requirements of the California Environmental Quality Act.

.2 **Record Documents.** Contractor shall maintain Record Drawings and Specifications in a satisfactory record condition by posting, on a weekly basis (or, in the case of building or site mechanical, electrical, plumbing or fire sprinkler systems, as soon thereafter as is reasonable and practical), thoroughly and neatly, on the Drawings and Specifications all Changes to the Work and the location of the Work, including, without limitation, the location of portions of the Work shown diagrammatically, as occurs in the actual construction of the Work. The Record Drawings and Specifications and other Record Documents shall be prepared or converted, if requested by County, to electronic form (such as, AutoCAD, Adobe Acrobat or other software satisfactory to County). All Record Drawings and Specifications and other Record Documents shall be deemed the sole property of County and, at the earlier of Final Completion or termination of the Construction Contract, shall be turned over to County. At the time they are so turned over to County, they shall be manually signed by Contractor's superintendent certifying that, to the best of his/her knowledge, they are true and accurate and that the indications thereon represent the actual condition of the Work.

.3 **Availability for Review.** Copies or originals of all documents required to be maintained by Contractor at the Site or required to be submitted to County shall be available at all times at the Site while Work is being performed for review by County, Inspector of Record and Governmental Authorities.

.4 **Condition of Payment.** Compliance by Contractor with the requirements of this Paragraph 3.10.1 shall be deemed a condition to Contractor's right to payment upon its Applications for Payment.

3.10.2 Daily Reports.

.1 **Delivery.** At the end of each Day that Contractor performs the Work on the Site, Contractor shall submit a daily report to County (on the form provided or approved by County) together with applicable delivery tickets for all labor, materials and equipment furnished that Day. If requested by County, daily reports shall be delivered electronically.

.2 **Content.** Daily Reports shall include the following information:

(1) Labor - The names of the workers, and for each such worker his/her classification and hours worked.

(2) Material - A list of the different materials used and for each different material the quantity used.

(3) Equipment - The type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.

(4) Inspection and Testing Activities – A list of inspections performed by name of inspector and testing company and the type of inspection, items of the Work involved and a description of the outcome of such inspection or test.

(5) Visitors, Guests, Dignitaries – A list of visitors and guests by name, title, company and purpose of visit.

(6) **Areas of the Work** – A statement of the areas of the Site on which the Work was performed and a detailed description of the stage, status and progress of the Work in each such area at the beginning and end of the Day.

(7) **Accidents, Delays, Defective Work** – A description in detail of any injuries to the workers, accidents or delays that occurred or Defective Work that was encountered.

(8) **Other Services and Expenditures** – A description of other services and expenditures in such detail as County may require.

.3 **Payment.** Timely and complete submission of daily reports by Contractor shall be a condition to Contractor's right to payment under the Construction Contract.

3.10.3 **Progress Meetings.** Contractor shall attend all progress meetings at the Site, at which meetings progress of the Work shall be reported in detail with reference to the then-current updated Construction Schedule approved by the County. Progress meetings shall be held weekly, or at such other time or frequency as County, in its sole and absolute discretion, deems necessary. A representative of each Subcontractor then actively performing Work, or immediately scheduled to become active, shall have a competent and knowledgeable representative present at such progress meeting to report on the condition of the Work of such Subcontractor and to receive relevant information. Meeting notes shall be taken by the Contractor and distributed to all meeting attendees and all other affected parties.

3.10.4 **Notice Requirements.** Under no circumstances shall information contained in Contractor's daily job reports, monthly reports or job meeting minutes relieve Contractor of its obligations to comply with, serve as a substitute for, nor constitute a waiver by County of its right to insist upon, Contractor's compliance with the provisions of the Contract Documents relative to timely and complete notice to County of Changes, Delays, Claims or other matters for which written notice is required by the Contract Documents.

3.10.5 **Availability for Review.** Copies or originals of all Record Documents, daily reports, job meeting minutes and other documents required to be maintained or actually maintained by Contractor at the Site or required to be submitted to County shall be available at the Site for review by County, Inspectors of Record, County Consultants and Governmental Authorities.

3.11 SUBMITTALS

3.11.1 **Not Contract Documents.** Shop Drawings, Product Data, Samples and other Submittals are not Contract Documents. Their purpose is to demonstrate for those portions of the Work for which Submittals are required the way Contractor proposes to conform the Work to the designs and other information in the Contract Documents.

3.11.2 **Coordination with Others.** Contractor shall cooperate in the coordination of Contractor's Shop Drawings, Product Data, Samples and other Submittals with related documents submitted by the Separate Contractors.

3.11.3 **Submission by Contractor.**

.1 **Submission.** All Shop Drawings, Product Data, Samples and other Submittals required by the Contract Documents shall be submitted to Architect for its review and approval, with a copy to County and to such of County's Consultants or Separate Contractors as County may direct in writing. Informational submittals (i.e., Submittals upon which no responsive action is expected) shall be limited to those Submittals so identified in the Contract Documents. Submittals made by Contractor which are not required by the Contract Documents may be returned without action.

.2 **Contractor Approval.** The Contractor shall review, stamp "approved" and submit Contractor's Shop Drawings, Product Data, Samples and other Submittals to the Architect, in accordance with the latest Submittal Schedule approved by the County. The Contractor's approval and submission of Submittals constitutes a representation that the Contractor has determined or verified materials and field measurements and conditions related thereto, and that it has checked and coordinated the information contained within such Submittals with the requirements of the Contract Documents and with the Submittals for related Work. Submittals without evidence thereon of the

Contractor's approval shall be returned, without further consideration, for resubmission in accordance with these requirements.

.3 Transmittal. All Submittals shall be accompanied by an accurately completed transmittal in the form required by County. With respect to Submittals of documents, the transmittal shall give a list of the numbers of the sheets submitted. All sheets shall be marked with the name of the Project and the name of Contractor shall be numbered consecutively and referenced to the sheets or paragraphs of the Drawings and Specifications affected. A separate transmittal form shall be used for each specific item or class of material or equipment for which a Submittal is required. Transmission of Submittals of various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency dictates review of the group or package as a whole. Any Submittal not accompanied by such transmittal form, or where all applicable items on the form are not completed, may be returned for re-submittal without review.

.4 Timing. Submittals shall be provided within the time frame specified in the Contract Documents, in accordance with the Construction Schedule and Submittal Schedule and at a time sufficiently early to allow review of the same by the Architect without causing Delay to construction progress. Contractor will be responsible to pay, at Contractor's Own Expense, additional services fees and costs incurred by County to Inspectors of Record and County Consultants in order to expedite review of Submittals which are not submitted in a timely fashion.

.5 Content. Submittals shall consist of the appropriate combination of catalog sheets, material lists, manufacturer's brochures, technical bulletins, specifications, diagrams and product samples, necessary to describe a system, product or item. Submittals shall show in detail the size, sections and dimensions of all members, the arrangement and construction of all connections, joints and other pertinent details, and all holes, straps and other fittings for attaching the Work. When required by the Architect or the Contract Documents, engineering computations shall be submitted.

.6 Professional Certifications. Intentionally omitted.

.7 Multiple Submittals. Except where the preparation of a Submittal is dependent upon the approval of a prior Submittal, all Submittals pertaining to the same class or portion of the Work shall be submitted simultaneously.

.8 Notation of Revisions. Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or other Submittals, to revisions other than those requested and approved by Architect on previous Submittals.

.9 Duplicates. Contractor shall be responsible for delivering duplicates of Submittals to all other persons whose work or services are dependent thereon.

3.11.4 Review of Submittals. Review of Submittals by County or County Consultants is subject to the limitations of Paragraph 4.2.6, below. Contractor shall, notwithstanding any review or approval thereof by County or a County Consultant, be solely responsible for the content of all Submittals. Without limitation to the foregoing, deviations in Submittals from requirements of the Contract Documents shall remain the sole responsibility of Contractor unless Contractor has specifically informed Architect in writing of such deviation at the time of submission of the Submittal and Architect has given specific written approval thereof.

3.11.5 Contract Adjustments. Subject to Contractor's rights and obligations under Article 7, below, revisions indicated on Shop Drawings, Product Data, Samples or other Submittals shall not be considered as a basis for Contract Adjustments.

3.11.6 Compliance with Contract. Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples or other Submittals until the respective Submittal has been returned by the Architect with an indication that it has been reviewed and that the Work addressed by the Submittal may proceed. Such Work shall be in accordance with such Submittals, unless such Submittal indicates that there are corrections to be made. If corrections are indicated to be made then the Work shall be in accordance with the re-submitted and corrected Submittal that is reviewed and returned to the Contractor by the Architect.

3.12 USE OF SITE

3.12.1 **Staging Area.** Contractor will be assigned staging space on or adjacent to the Site, and all field offices, materials and equipment shall be kept within this area. Unless otherwise required by the Contract Documents, Contractor shall be responsible for restoring such areas and surrounding areas to the condition they were in prior to Contractor's commencement of the Work.

3.12.2 **Existing Improvements.** During the installation of the Work, Contractor shall ensure that Existing Improvements are adequately protected. Upon Final Completion of the Work, all Existing Improvements not required by the Contract Documents to be demolished as part of the Work that have been damaged by the actions or inactions of Contractor or its Subcontractors shall be restored to the condition they were in prior to Contractor's commencement of the Work.

3.12.3 **Operations at Site.** Contractor shall confine its activity, access and parking at the Site to areas permitted by Applicable Laws and County and shall not unreasonably encumber the Site with materials or equipment. Contractor acknowledges that it is experienced in performing construction within limited and confined areas and spaces such as those that are anticipated to exist on this Project and agrees to assume responsibility, without a Contract Adjustment, to take all special measures (including, without limitation, those related to protection, storage, staging and deliveries) as may be necessary to adapt its performance to the constraints of the Site.

3.12.4 **Coordination.** Contractor shall coordinate Contractor's operations with, and secure the approval of, County before using any portion of the Site.

3.12.5 **Unauthorized Use.** Personnel of Contractor and the Subcontractors shall not occupy, live upon or otherwise make use of the Site during any time that the Work is not being performed at the Site, except as otherwise approved by County.

3.12.6 **Site Security.** Contractor is responsible for the security of the Site and all of the Work, as well as the work of the Separate Contractors or County's own forces that occurs on the Site. Fences, barricades and other perimeter security shall be maintained in good condition and secured with locking devices. Damage to fences, barricades or other perimeter security, regardless of the cause, shall be repaired immediately at Contractor's Own Expense. Graffiti and unauthorized postings shall be removed or painted over so as to maintain a clean and neat appearance. Mobile equipment and operable machinery shall be kept locked or otherwise made inoperable whenever left unattended.

3.12.7 **Persons on Site.** Contractor shall not allow any person, other than the workers on the Project, authorized representatives of a union, or other individuals authorized by County, to come upon any portion of the Site where the Work is being performed. Only authorized personnel will be permitted on the Site. Contractor shall at all times maintain good discipline and order among its employees and the employees of the Subcontractors. Any person in the employ of Contractor or of any Subcontractors whom County may deem, in its sole and absolute discretion, incompetent, unfit, intemperate, troublesome or otherwise undesirable shall be excluded from the Site and shall not again be employed on the Site except with written approval of County and all Losses to Contractor or County associated therewith shall be borne by Contractor at Contractor's Own Expense.

3.12.8 **County Uses and Activities.** Contractor shall, prior to performing the Work at an operating or occupied County facility, become informed and take into specific account the uses by County and others of the Site and Existing Improvements, including, without limitation, business operations, public uses, employee uses, visitor uses, planned functions and ceremonies, and coordinate its planning, staging, scheduling, barricading and other performance of the Work so as to cause the minimum amount of interference or disturbance, whether before or after operating hours.

3.12.9 **Dust, Fumes, Noise.** Contractor shall take preventive measures to minimize, and eliminate wherever reasonably possible, generation of dust, fumes and noise.

3.12.10 **Confinement of Operations.** Contractor shall confine apparatus, the storage of materials and the operations of the workers to limits indicated by Contract Documents or as otherwise directed by County in writing.

3.12.11 Prohibited Substances. Contractor shall not permit (1) the possession or use of alcohol or controlled substances on the Site or (2) smoking in other than designated smoking areas approved by County.

3.12.12 Survey Markers. Contractor shall not disturb or cover any survey markers, monuments or other devices marking property boundaries or corners. If such markers are covered they shall be uncovered and if disturbed they shall be replaced by Contractor by means of the services of a licensed land surveyor. The costs of such uncovering and replacement shall be at Contractor's Own Expense.

3.12.13 Drainage, Erosion. Contractor is responsible for and shall make corrections to changes in patterns of surface water drainage resulting from, and related erosion control made necessary by, the performance of the Work.

3.12.14 Trenches. As required by California Labor Code §6705, if the Contract Price exceeds Twenty-Five Thousand Dollars (\$25,000) and involves the excavation of any trench or trenches five (5) feet or more in depth, Contractor shall, in advance of commencing excavation, submit to County a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the Shoring Systems Standards established by the Construction Safety Orders of the California Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer, employed by Contractor at Contractor's Own Expense. Nothing in this Paragraph 3.12.14 shall be deemed to allow the use of a system less effective than that required by such Construction Safety Orders. No excavation of such trench or trenches shall be commenced until such plan has been approved by County. Nothing in this Paragraph 3.12.14 shall be construed to impose any liability, including, without limitation, any tort liability, upon the County or upon any of its officers, agents, representatives or employees.

3.13 CUTTING AND PATCHING

Contractor shall be responsible for all cutting, fitting or patching required to complete the Work and to make its parts fit together properly both among themselves and with any Existing Improvements and the work of the Separate Contractors and of County's own forces. In all cases, cutting shall be performed under the supervision of competent mechanics skilled in the applicable trade and openings shall be cut as small as possible to prevent unnecessary damage. Contractor shall not damage or endanger a portion of the Work, Existing Improvements or fully or partially completed construction of County's own forces or of the Separate Contractors by cutting, patching, excavating or otherwise altering such construction. Contractor shall not cut or otherwise alter such Existing Improvements or construction by Separate Contractors or by County's own forces except with the written consent of such Separate Contractors or County, which consent shall not be unreasonably withheld, delayed or conditioned. When asked, Contractor shall not unreasonably withhold from the Separate Contractors or County the Contractor's consent to Separate Contractors' or County's own forces' cutting or other alteration of the Work as required to complete the work of the Separate Contractors or County's own forces.

3.14 UTILITIES AND SANITARY FACILITIES

3.14.1 Contractor Responsibility. Except as otherwise required by California Government Code §4215, Contractor shall contact all relevant utility providers and arrange for obtaining all available information, concerning location of subsurface utility lines. Prior to commencement of any digging, Contractor shall make its own investigation, including exploratory excavations, to determine the locations and type of Work which could result in damage to such utilities. In accordance with California Government Code §§4216 et seq., except in an emergency, Contractor shall contact the appropriate regional notification center at least two (2) the working days, but not more than fourteen (14) Days, prior to commencing any excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain sub-service installations, and shall obtain an inquiry identification number from the regional notification center. Contractor shall not assume, unless actual observed surface conditions at the Site indicate otherwise, that utilities are located in the same location as indicated on the as-built records or other information obtained by Contractor. Contractor shall conduct potholing in advance of digging in any areas where there are not apparent surface conditions at the Site indicating the actual location of underground utilities and be at all times vigilant in watching for any conditions encountered, above or below the surface of the ground, that might indicate that underground utilities are at locations other than those indicated by the as-built records or other information obtained by Contractor. Contractor shall perform its digging operations in a slow and meticulous manner so as to avoid wherever reasonably possible damaging existing underground utilities. Contractor shall, at Contractor's Own Expense, make good any Loss to County or others as a result of Contractor's failure to perform any of its obligations under this Paragraph 3.14.1.

Nothing stated in this Paragraph 3.14.1 shall be interpreted as requiring Contractor to do subsurface exploration or potholing for the purpose of locating subsurface utilities at the Site prior to the Bid Closing Deadline or as precluding the Contractor from receiving a Contract Adjustment for unknown subsurface utilities constituting Differing Site Conditions that are encountered in the course of performing the Site investigation or potholing required by this Paragraph 3.14.1.

3.14.2 County Responsibility. If and to the extent required by California Government Code §4215, County assumes the responsibility for removal, relocation, and protection of those existing main or trunkline utility facilities located at the Site at the time of commencement of the Work that are not identified in the Contract Documents. Provided that Contractor has exercised the Standard of Care in performing the Work in accordance with the Contract Documents, Contractor shall be entitled to a Contract Adjustment for, relocating, repairing or removing any utility facilities not indicated in the Contract Documents with reasonable accuracy, including, without limitation, equipment on the Site necessarily idled thereby. Delays caused by County's or a utility owner's failure to provide for the removal or relocation of such utility facilities shall constitute a Compensable Delay. Nothing herein shall be deemed to require County to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings or meter junction boxes located on or adjacent to the Site.

3.14.3 Temporary Utilities. All utilities, including but not limited to electricity, water, gas and telephone, used in performance of the Work (including, without limitation, meters and temporary distribution systems from distribution points to points on Site where a utility is needed and "tap fees") shall be furnished and paid for by Contractor or, if furnished by County, shall be paid for by Contractor at Contractor's Own Expense. Upon Final Completion of the Work, Contractor shall remove all temporary distribution systems. If the Work involves an addition to an existing facility, Contractor may, with written permission of County, granted or withheld in County's sole and absolute discretion, use County's existing utilities by making prearranged payments to County for utilities used by Contractor. When it is necessary to interrupt any existing utility service to make connections, a minimum of two (2) working days' advance notice shall be given to County. Interruptions shall be of the shortest possible duration and shall be scheduled during a time of Day that minimizes its impact on the operations of the existing facility. Any Loss to County or Contractor associated with interruption of a utility service as a result of Contractor's breach of, or failure to fully comply with, its obligations under this Paragraph shall be paid for by Contractor at Contractor's Own Expense.

3.14.4 Sanitary Facilities. Contractor shall provide sanitary temporary toilet facilities, for the use of all the workers, in no fewer numbers than required by Applicable Laws, plus such additional facilities as may be directed by County. Such facilities shall be maintained in a sanitary condition at all times. Use of existing or permanent toilet facilities shall not be permitted except by written consent of County.

3.15 CLEANING UP

3.15.1 Contractor Responsibility. Contractor at all times shall keep the Site free from debris such as waste, rubbish and excess materials and equipment caused by the performance of the Work. At the end of each Day that Work is performed, Contractor shall not leave debris under, in or about the Site but shall promptly dispose of or remove same from the Site. Without limitation to the other clean up requirements of the Contract Documents, upon Final Completion, Contractor shall: (1) clean the interior and exterior of the buildings, including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections and any areas where debris has collected so surfaces are free from foreign material or discoloration; (2) clean and polish all glass, plumbing fixtures, finish hardware and similar finish surfaces and equipment; and (3) remove temporary fencing, barricades, planking, sanitary facilities and similar temporary facilities from the Site.

3.15.2 Cleanup by County. If Contractor fails upon 24 hours' notice by County to perform its obligation to clean up, County may arrange to do so, and the cost thereof shall be borne by Contractor at Contractor's Own Expense.

3.16 ACCESS TO THE WORK

3.16.1 County. County, Inspectors of Record, and County Consultants, and their representatives, and such other persons as authorized by County, shall at all times have access to the Work, either in preparation or in progress. Contractor shall provide safe and proper facilities for such access so that they and their representatives may perform their functions safely.

3.16.2 Separate Contractors. County, using its own forces or those of Separate Contractors, may, at any time during the performance of the Work, enter the Site for the purpose of performing construction or for any other purpose. Contractor shall cooperate with County, County's own forces and Separate Contractors and not interfere with other work being done by them or on their behalf.

3.16.3 Delivery Routes. Contractor shall arrange for delivery of material over routes designated by County.

3.17 INTELLECTUAL PROPERTY RIGHTS

Contractor shall pay all royalties and license fees relating to use of Intellectual Property Rights pertaining to Work performed. Contractor shall defend suits or claims for infringement of Intellectual Property Rights and shall defend, indemnify and hold harmless the Indemnitees from Loss on account thereof in accordance with the terms of Section 3.18, below, unless the infringement is due to a particular design, process, product or product of a particular manufacturer that is required by the Contract Documents; provided, however, that if Contractor has information leading it to believe that the use of a particular design, process or product required by the Contract Documents would constitute an infringement of an Intellectual Property Right, then Contractor shall nonetheless be responsible to provide such defense, indemnification and hold harmless if such information is not promptly furnished in writing to County.

3.18 INDEMNIFICATION

3.18.1 Contractor's Indemnity Obligation. To the fullest extent permitted by Applicable Laws, Contractor agrees to indemnify, immediately defend at its own expense and hold harmless, County, Board of Supervisors, and each of their respective members, officers, employees, agents, and volunteers ("Indemnitee(s)"), through legal counsel reasonably acceptable to County, from any and all Losses, whether real or alleged, regardless of whether caused in part by such Indemnitee or its agents, servants or independent contractors who are directly responsible to such Indemnitee, arising out of or relating to any of the following:

- .1** any act or omission of Contractor or a Subcontractor, of any Tier;
- .2** the activities of Contractor or a Subcontractor, of any Tier, on the Site or on other properties related to performance of the Work or the preparation for performance of the Work;
- .3** the payment or nonpayment of any Subcontractor, of any Tier, for the Work performed, except where such nonpayment is the result of a breach by County of its payment obligations under the Contract Documents;
- .4** the existence or dispersal of any Hazardous Substances or Mold on the Site as a result of the failure of Contractor or a Subcontractor, of any Tier, to comply with its obligations under the Contract Documents;
- .5** the violation by Contractor or a Subcontractor, of any Tier, of an obligation under Section 3.17, above, involving infringement of an Intellectual Property Right; or
- .6** the violation by Contractor or a Subcontractor, of any Tier, of any Applicable Law, including, without limitation, the violation of any requirement of the State of California General Permit for Storm Water Discharges Associated with Construction Activity and subsequent amendments or orders for construction activities as applicable thereto (including, without limitation, the requirements of a Storm Water Pollution Prevention Plan) or the violation of any applicable requirement of any local or regional Air Quality Management District (AQMD) (including, without limitation, a violation of any of the requirements set forth in the County MOU with AQMD dated January 6, 2004 Agenda Item 3.1 (for projects in the Coachella Valley) or AQMD Rule 403 (for projects west of the Coachella Valley));

PROVIDED, HOWEVER, that nothing contained herein shall be construed as obligating Contractor to indemnify an Indemnitee for Losses resulting from the sole negligence, active negligence or willful misconduct of such Indemnitee or its agents, servants or independent contractors who are directly responsible to such Indemnitee or from a defect in design furnished by such Indemnitee. In instances where the active negligence or willful misconduct of an Indemnitee or its agents, servants or independent contractors who are directly responsible to such Indemnitee or a defect in a design furnished by such an Indemnitee accounts for only a portion or percentage of the Loss involved, the obligation of Contractor will be for that portion or percentage of the Loss not due to such active negligence, willful misconduct or design defect.

3.18.2 Indemnification of Adjacent Property Owners. In the event Contractor enters into an agreement with the owners of any adjacent property to enter upon such property for the purpose of performing the Work or other activities incidental to the Work, Contractor shall fully indemnify, defend and hold harmless any person or entity which owns or has any interest in such adjacent property against any Loss resulting from the acts or omissions of the Contractor or its Subcontractors. The form and content of such indemnification agreement shall be approved by County prior to commencement of any Work on or around such property.

3.18.3 Insurance and Employment Benefits. The indemnification, defense and hold harmless obligations of Contractor under this Section 3.18, as well as any such obligations stated elsewhere in the Contract Documents: (1) shall not be limited by the amounts or types of insurance (or the deductibles or self-insured retention amounts of such insurance) which any Indemnitee, Contractor or any Subcontractor carries or is required to carry under the terms of the Contract Documents; (2) is independent of and in addition to the Indemnitees' rights under the insurance to be provided by an Indemnitee, Contractor or any Subcontractor; and (3) shall not be limited, in the event of a claim against an Indemnitee by an employee of Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, by a limitation on amount or type of damages, compensation or benefits payable by or for Contractor or Subcontractor under any worker's compensation act, disability benefit act or other employee benefit program.

3.18.4 Subcontractor Indemnity Agreements. Contractor agrees to obtain or cause to be obtained executed defense and indemnity agreements with provisions identical to those set forth in this Section 3.18 from each and every Subcontractor, of every Tier.

3.18.5 Implied Indemnity Rights. Notwithstanding anything stated in this Section 3.18 or elsewhere in the Contract Documents to the contrary, an Indemnitee's right to seek equitable indemnity and contribution from Contractor is in no way diminished, limited or precluded by any agreement by Contractor to provide express contractual indemnity to such Indemnitee. Contractor's obligations under this Section 3.18 shall be deemed to completely eliminate and preclude any right by Contractor to seek contractual or equitable indemnity or contribution from any Indemnitee for any Loss covered by the Contractor's express indemnification obligations under this Section 3.18.

3.18.6 Obligation to Defend. The Contractor's obligation to defend under this Section 3.18 includes, without limitation, the obligation to immediately reimburse an Indemnitee for any attorney's fees, court costs (statutory and non-statutory), arbitration and mediation expenses, professional, expert and consultant fees, investigative costs, postage costs, document copying costs, telecopy costs and any and all other costs and expenses associated with defense of such Indemnitee as and when incurred by any Indemnitee in defense of a claim by any third person or entity as a result of Contractor's failure or refusal to comply with its immediate defense obligation to such Indemnitee.

3.19 LABOR, WAGES, PAYROLL RECORDS

3.19.1 Public Work. This Work is a "public work" as defined in Labor Code §1720 and must be performed in accordance with the requirements of Labor Code §§1720 to 1850 and Title 8 California Code of Regulations §§16000 to 17270, which govern the payment of prevailing wage rates on public works projects.

3.19.2 Prevailing Wage Rates. Pursuant to the provisions of Article 2 (commencing at §1770), Chapter 1, Part 7, Division 2 of the Labor Code of California, the Board of Supervisors has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime Work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to execute the Work from the Director of the Department of Industrial Relations. These rates are on file with County and copies will be made available to any interested party on request. Contractor shall post a copy of such wage rates at the Site. The adoption of such wage rates is not a representation that labor can be obtained at these rates. It is the responsibility of Contractor to inform itself as to the local labor conditions. Holiday and overtime Work, when permitted by Applicable Laws, shall be paid for at a rate of at least one and one-half times the adopted rate of per diem wages, unless otherwise specified. Holidays shall be defined in the collective bargaining agreement applicable to each particular craft, classification or type of worker employed.

3.19.3 Unclassified Workers. Any worker employed to perform the Work not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director of the Department of Industrial Relations shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly

corresponds to the Work to be performed by him/her, and such minimum wage rate shall be retroactive to time of initial employment of such person on the Project in such classification.

3.19.4 Per Diem Wages. Contractor shall pay or shall cause to be paid each worker engaged in the Work not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any of the Subcontractors and such workers. Pursuant to California Labor Code §1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time and subsistence pay.

3.19.5 Applicable Laws. Contractor represents and warrants that the Contractor's Bid and the Contract Price includes funds sufficient to allow Contractor to comply with all Applicable Laws governing the labor or services to be provided. Contractor shall defend and indemnify the Indemnitees in accordance with Section 3.18, above, for any violation of any Applicable Law, including but not limited to California Labor Code §2810, and agrees to pay all assessments, including wages and penalties, made against County in relation to such violations.

3.19.6 Posting at Site. Contractor shall post at appropriate conspicuous points on the Site the prevailing wage rates of the Department of Industrial Relations in accordance with 8 California Code of Regulations 16100(b).

3.19.7 Worker Hours. As provided in Article 3 (commencing at §1810), Chapter 1, Part 7, Division 2 of the California Labor Code, eight (8) hours of labor shall constitute a legal day's work. The standard work day of any worker employed at any time by Contractor or any of the Subcontractors performing the Work, or any part of the Work, shall, except as hereinafter provided, be limited and restricted by Contractor to eight (8) hours per day, between the hours of 6:00 A.M. and 6:00 P.M. (unless otherwise required by Applicable Laws), plus one-half hour unpaid lunch approximately midway through the shift, provided that Contractor or any of the Subcontractors may establish a four day/ten-hour schedule consistent with Applicable Laws pertaining to payment of prevailing wages and the provisions any applicable collective bargaining agreement. A regular-work week shall constitute forty (40) hours during any one week. Notwithstanding the provisions hereinabove set forth, the parties hereto may agree to changes in the work day or the work week as permitted by Applicable Laws, and Contractor and all Subcontractors must pay the appropriate prevailing wage rate for those hours and days worked.

3.19.8 Overtime. Overtime work performed by employees of Contractor or any of the Subcontractors shall be compensated according to the applicable general prevailing rate established by the Department of Industrial Relations for holiday and overtime work for each craft, classification or type of worker in the locality in which the Work is to be performed.

3.19.9 Payroll Records. It shall be the sole responsibility of Contractor to ensure compliance with the provisions of Applicable Laws and the Contract Documents relating to maintenance and submission of payroll records. Pursuant to the provisions of California Labor Code §1776, Contractor shall keep, and shall cause each Subcontractor performing any portion of the Work to keep, accurate certified payroll records, showing the name, address, social security number, worker classification and straight-time and overtime hours worked each Day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by Contractor in connection with the Work. Certified payroll records must be in the payroll reporting format prescribed by the Division of Labor Standards Enforcement. If there is no work by Contractor or a Subcontractor in a given week, Contractor must keep and submit a certified "Nonperformance" payroll record, indicating "no work" for that week. Contractor shall submit all certified payroll records to County in complete, unredacted form with an original signature on the Statement of Compliance, along with, and as a condition to, its Applications for Payment. Additionally, payroll records shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

.1 a certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his or her authorized representative on request;

.2 a certified copy of all such payroll records shall be made available for inspection or furnished upon request to County, the Division of Labor Standards Enforcement and/or the Division of Apprenticeship Standards of the Department of Industrial Relations or such other person or entity as designated by County;

.3 a certified copy of all such payroll records shall be made available upon request by the public for inspection or the copying thereof, provided that (1) such request is made by the public through either County, the

Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations, (2) such requested payroll records have not previously been provided pursuant to Subparagraph 3.19.9.2, above, then the requesting individual or entity shall, prior to being provided the records, reimburse the costs of preparation by Contractor, the Subcontractors and the entity through which the request was made, and (3) the public shall not be given access to records at the principal office of Contractor;

.4 Contractor and each Subcontractor shall within ten (10) Days after receipt of a written request file a certified copy of such payroll records with the person or entity that requested the records;

.5 Contractor shall provide, and shall cause each Subcontractor to provide, payroll records as defined in Title 8 California Code of Regulations §16000 to County within ten (10) Days after receipt of written request, at no cost to County;

.6 any copy of such payroll records made available for inspection by, and copies furnished to, the public shall be redacted in a manner so as to prevent disclosure of an individual's name, address, and social security number, except that any copy made available for inspection by, and copies furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Section 175a) shall be marked or redacted only to prevent disclosure of an individual's name and social security number, and in either event, the name and address of Contractor or the Subcontractor performing the Work shall not be so obliterated; and

.7 any copy made available to an agency included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided nonr copies of certified payroll records;

.8 Contractor shall inform County concurrently with the submission of its initial Application for Payment, of the location of such payroll records, including the street address, city and county, and thereafter shall, within five (5) working days, provide a notice of any change of location and address of such payroll records.

3.19.10 Apprentices. Contractor acknowledges that, even if performance of the Work involves a dollar amount greater than or a number of working days greater than that specified in California Labor Code §1777.5, it shall be the sole responsibility of Contractor, for all apprentice occupations, to ensure compliance with California Labor Code §1777.5, including, without limitation, the following provisions:

.1 Apprentices of any crafts or trades may be employed and, when required by California Labor Code §1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the California Labor Code.

.2 Every such apprentice shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

.3 Only apprentices, as defined in California Labor Code §3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing at §3070), Division 3 of the California Labor Code, are eligible to be employed at the apprentice wage rate on Public Works. The employment and training of each apprentice shall be in accordance with either: (1) the apprenticeship standards and apprentice agreements under which he or she is training, or (2) the rules and regulations of the California Apprenticeship Council.

.4 Contractor and any of the Subcontractors employing workers in any apprenticeable craft or trade in performing any of the Work shall apply to the applicable joint apprenticeship committee for a certificate approving Contractor or the Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

.5 Prior to commencing the Work, Contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the Site of the Work. The information submitted shall include an estimate of journeyman hours to be performed under the Construction Contract, the number of apprentices

proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to County if requested by County.

.6 The ratio of the Work performed by apprentices to journeymen employed in a particular craft or trade on the Work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates, where Contractor or the Subcontractor agrees to be bound by those standards, but, except as otherwise provided in this Paragraph, in no case shall the ratio be less than one (1) hour of apprentice work for every five (5) hours of journeyman work. Apprentices may comprise up to thirty percent (30%) of the work force of each particular craft, classification or type of worker employed, unless the applicable joint apprenticeship committee establishes a lower percentage. To the extent possible, fifty percent (50%) of the apprentice work force shall consist of first-year apprentices.

.7 The interpretation and enforcement of California Labor Code §1777.5 shall be in accordance with the rules and procedures of the California Apprenticeship Council.

.8 Contractor and all the Subcontractors shall comply with California Labor Code §1777.6, which forbids certain discriminatory practices in the employment of apprentices.

.9 Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work, paying special attention to California Labor Code §§1777.5, 1777.6, and 1777.7 and Title 8, California Code of Regulations, §§200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California.

3.19.11 Pre-Construction Meetings, Interviews. Contractor shall attend any pre-construction meetings held by County to discuss labor requirements. Contractor and the Subcontractors shall allow County, County Consultants and the Department of Industrial Relations, and designated representatives of each, to conduct, at their discretion, interviews of workers at the Site during working hours.

3.19.12 Penalties for Violations.

.1 **Prevailing Wage Violations.** Pursuant to California Labor Code §1775, Contractor and any of the Subcontractors shall, as a penalty, pay an amount not to exceed Two Hundred Dollars (\$200) for each Day, or portion thereof, for each worker paid less than the prevailing rates, determined by the Director of the Department of Industrial Relations, for the trade or craft in which such worker is employed by Contractor or, except as provided by said §1775, by any of the Subcontractors, of any Tier, for performance of the Work. The amount of this penalty shall be determined by the Labor Commissioner and shall be based on consideration of both: (1) whether the failure of Contractor or the Subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, whether the error was promptly and voluntarily corrected upon being brought to the attention of Contractor or the Subcontractor; and (2) whether Contractor or the Subcontractor has a prior record of failing to meet its prevailing wage obligations. The difference between the amount owed to each worker pursuant to such prevailing wage rates, and the amount paid to each worker for each Day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

.2 **Working Hour Violations.** Pursuant to Labor Code §1813, Contractor shall pay a penalty of Twenty-Five Dollars (\$25) per worker employed in the performance of the Work by Contractor or by any of the Subcontractors for each Day during which such worker is required or permitted to work more than eight (8) hours in any Day and forty (40) hours in any one calendar week in violation of the provisions of Article 3 (commencing at §1810), Chapter 1, Part 7, Division 2 of the California Labor Code.

.3 **Payroll Record Violations.** Pursuant to California Labor Code §1776, Contractor shall in the event of a failure to comply within ten (10) Days with any written notice requesting the records enumerated in subdivision (a) of said §1776, pay a penalty of One Hundred Dollars (\$100) for each Day, or portion thereof, for each worker, until Contractor has strictly complied with such request. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

.4 **Apprenticeship Violations.** Pursuant to California Labor Code §1777.7, if Contractor or the Subcontractor is determined by the Chief of the Division of Apprenticeship Standards (the "Chief") to have knowingly

committed a first-time violation of California Labor Code §1777.5, Contractor or the Subcontractor shall pay, as a civil penalty, an amount not exceeding One Hundred Dollars (\$100) for each full Day of noncompliance, provided that the amount of this penalty may be reduced by the Chief if the penalty would be disproportionate to the severity of the violation. In lieu of this penalty, the Chief may, for a first-time violation and with the concurrence of the joint apprenticeship committee, order Contractor or the Subcontractor to provide apprentice employment equivalent to the work hours that would have been provided for apprentices during the period of noncompliance. If such violation by Contractor or the Subcontractor is a second or subsequent violation committed within a three (3) year period from a previous violation of §1777.5, Contractor or the Subcontractor shall pay, as a civil penalty, to County the sum of not more than Three Hundred Dollars (\$300) for each full Day of noncompliance. County shall withhold the amount of the civil penalty from contract progress payments then due or to become due. In addition, if Contractor or the Subcontractor is determined to have knowingly committed a serious violation of any provision of §1777.5, the Chief may deny to Contractor or the Subcontractor, and to its responsible officers, the right to bid on or be awarded a contract to perform work as a subcontractor on any subsequent project for County for a period of up to one (1) year for the first violation and for a period of up to three (3) years for a second or subsequent violation.

3.19.13 Subcontractor Provisions. Contractor shall include, and shall require the Subcontractors to include, contractual provisions in all contracts they enter into for the performance of the Work requiring compliance with the provisions of this Section 3.19 at no additional cost.

3.19.14 Condition of Payment. Compliance by Contractor with the requirements of this Section 3.19 and each of its Paragraphs shall be a condition to Contractor's right to payment under its Applications for Payment. Without limitation to the foregoing, payments to Contractor shall not be made when payroll records are delinquent or inadequate.

3.20 LABOR CODE §2810

3.20.1 Application. The provisions of this Section 3.20 apply only if the Contractor has not executed a collective bargaining agreement covering the workers who will be employed to perform the Work.

3.20.2 Declaration by Contractor. If a Declaration of Sufficiency of Funds has not been submitted by Contractor as a Post-Award Submittal, then it must be submitted prior to Award. In executing the Construction Contract, Contractor warrants and represents that all of the statements contained in its Declaration of Sufficiency of Funds remain true and correct as of the date of execution of the Construction Contract and may be relied upon by County in determining whether there appears to be sufficient funds in the Contractor's Bid to allow the Contractor to comply with all Applicable Laws governing the labor or services to be provided for the performance of the Work. The truth and accuracy of the statements contained in said Declaration and in this Paragraph 3.20.2 constitute a material part of the Contractor's consideration for, and a material inducement to the County's entering into, the Construction Contract.

3.20.3 Continuing Duty. To the extent that any of the information provided in the Declaration of Sufficiency of Funds submitted by Contractor relating to numbers of workers or independent contractors that will be employed or utilized for performance of the Work was or is based upon a best estimate, rather than actual figures or information, then the Contractor assumes the continuing duty to the County to ascertain the actual figures and information requested in the Declaration of Sufficiency of Funds and to provide such actual figures and information to the County in the form of a revised and updated Declaration of Sufficiency of Funds once the actual figures and information become known.

3.21 URBAN RUNOFF AND STORM WATER COMPLIANCE

3.21.1 Contractor's Responsibility. If and to the extent storm water permitting, control, mitigation or discharge control is required by Applicable Laws, the Contractor shall: (1) prior to starting any Work at the Site, sign and implement the Storm Water Management Plans or Storm Water Pollution Prevention Plans as previously prepared by the County's Consultant for civil engineering or by others; (2) take all necessary steps to monitor, report, enforce and otherwise implement and comply with the requirements of the Storm Water Permit, Storm Water Management Plans and Storm Water Pollution Prevention Plans and all Applicable Laws pertaining to the elimination or mitigation of storm water pollutant discharge to separate storm sewer systems or other watercourses, including without limitation, applicable requirements of the State Water Resources Control Board, Santa Ana, San Diego, and/or Colorado Region Water Quality Control Boards and municipal storm water management programs; (3) adhere to and implement the Special Provisions for Urban Runoff and Water Pollution Control set forth in the Specifications; and (4) ensure that the

Work is constructed in conformance with those post-construction best management practices (BMPs) identified within the project-specific Water Quality Management Plan (WQMP).

3.21.2 Inspections, Reports. Contractor shall immediately notify the person identified to Contractor as the County's "project manager" for the Project of all inspections by Government Authorities (including, but not limited to, any regional board staff) and, if practicable, arrange for participation by such Governmental Authorities in any other pertinent inspections conducted at the Site. Contractor shall provide to County copies of all reports and monitoring information related to the matters covered by this Section 3.21.

3.21.3 Violations. The Contractor recognizes and understands that failure to comply with the requirements of any applicable storm water-related permit issued by the State of California of the United States pursuant to the Clean Water Act (Title 33 U.S.C. §§ 1251 et seq) and/or the Porter Cologne Water Quality Control Act (California Water Code §§13000 et seq.) is a violation of Applicable Laws. Contractor shall be responsible for all Losses and for any liability (including, without limitation, fines, penalties and other administrative liabilities and costs) imposed by Applicable Laws as a result of the Contractor's failure to comply with Applicable Laws, including, without limitation, the requirements of this Section 3.21.

3.21.4 Condition of Payment. Compliance by the Contractor with the requirements of this Section 3.21 shall be a condition to the Contractor's right to payment under its Applications for Payment.

3.21.5 Costs of Compliance. The Contractor represents and warrants that it has included in its Bid all costs of compliance with the requirements of this Section 3.21.

3.22 SOLID WASTE MANAGEMENT

Contractor shall comply with all provisions of Applicable Laws (including, without limitation, the requirements of the California Public Resources Code, rules and regulations of the California Integrated Waste Management Board and provisions of any Site-specific plans adopted by County) that are applicable to the activities of contractors performing construction or related activities on the Site. Compliance by Contractor with the requirements of this Section 3.22 shall be a condition to Contractor's right to payment under its Applications for Payment.

3.23 CEQA COMPLIANCE

No Work that is subject to California Environmental Quality Act (CEQA) shall proceed by Contractor until Contract Documents satisfying the CEQA process are reviewed and approved by the County. Contractor shall comply with all applicable CEQA requirements. If there is a federal nexus (e.g. a source of federal funding) to the Project, compliance by Contractor with the National Environmental Policy Act (NEPA) will be required in addition to and in conjunction with compliance with requirements of CEQA. The Contractor shall comply with the conditions identified on the Plans and Specifications for compliance with the California Environmental Quality Act, including, without limitation, all requirements pertaining to Mitigation, Monitoring, and Reporting Program (MMRP).

3.24 AQMD COMPLIANCE

Contractor is responsible for full and complete compliance with, as applicable: (1) AQMD Rule 403.1, County Ordinance 742, the County MOU with AQMD dated January 6, 2004 Agenda Item 3.1 (for projects in the Coachella Valley); or (2) AQMD Rule 403 (for projects west of the Coachella Valley). Any fines imposed by AQMD on the County, as well as any other Loss to County, as a result of non-compliance by Contractor with the applicable provisions of the foregoing requirements are the responsibility of Contractor and upon request by County will be paid to County by Contractor or may be withheld by County from amounts due to Contractor under its Applications for Payment.

**ARTICLE 4
CONSTRUCTION ADMINISTRATION**

4.1 INTENTIONALLY OMITTED.

4.2 ADMINISTRATION OF THE CONSTRUCTION CONTRACT

4.2.1 Observations of the Work. Intentionally omitted.

4.2.2 Means, Methods. Construction means, methods, techniques, sequences, procedures and safety precautions and programs in connection with the Work are solely the responsibility of Contractor. County: (1) has no control over or charge of, nor are they responsible for, Contractors or any Subcontractor's construction means, methods, techniques, sequences, procedures, safety precautions or programs in connection with the Work, all of which are, as between Contractor and County, solely Contractor's responsibility; (2) is not responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents; or (3) has no control over, charge of, or responsibility for acts or omissions of Contractor, the Subcontractors or their agents or employees, or of any other persons performing portions of the Work.

4.2.3 Communications by Contractor. County shall be provided by Contractor with copies of all communications from Contractor or the Subcontractors to Separate Contractors. Contractor shall not rely on oral or other non-written communications.

4.2.4 Review of Applications for Payment. Intentionally omitted.

4.2.5 Rejection of the Work. Intentionally omitted.

4.2.6 Review of Submittals. Intentionally omitted.

4.2.7 Changes. County will prepare the Change Orders, Unilateral Change Orders and Construction Change Directives for execution and take appropriate action thereon in accordance with Article 7, below.

4.3 CLAIMS

4.3.1 Submission of Claims. All Claims by Contractor shall be submitted in accordance with the procedures set forth in this Section 4.3.

4.3.2 Arising of Claim.

.1 Changes. A Claim by Contractor involving a Contract Adjustment due to a Compensable Change or Deleted Work arises upon issuance of a decision denying, in whole or in part, Contractor's Change Order Request. Such Claim shall be prepared and submitted in accordance with the requirements of this Section 4.3, including, without limitation, Paragraphs 4.3.3 through 4.3.5, below.

.2 Other Claims. Claims by Contractor other than those described in Subparagraph 4.3.2.1, above, arise at the time that County receives written notice by Contractor of Contractor's intent to file the Claim. Such notice of intent shall be given no later than five (5) Days after the Discovery Date relative to such circumstances (even if Contractor has not yet experienced a Loss or Delay due to such circumstances) and shall state the event or condition giving rise to the Claim and its probable effect, if any, upon the Contract Price and Contract Time. **FAILURE BY CONTRACTOR TO SUBMIT A NOTICE OF INTENT TO FILE CLAIM IN ACCORDANCE WITH THIS SUBPARAGRAPH 4.3.2.2 SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO FURTHER RECOURSE OR RECOVERY UPON SUCH CLAIM.**

4.3.3 Content of Claims. A Claim must include the following:

- .1** a statement that it is a Claim and a request for a decision on the Claim;

.2 a detailed description of the act, error, omission, unforeseen condition, event or other circumstance giving rise to the Claim;

.3 supporting documentation as follows: (1) if the Claim involves a Contract Adjustment due to Compensable Change or Deleted Work, documentation demonstrating that a complete Notice of Change and Change Order Request were timely and properly submitted as required by Article 7, below; (2) if the Claim involves an adjustment to the Contract Time, documentation demonstrating that a complete Notice of Delay and Request for Extension were timely and properly submitted as required by Article 7 and Article 8, below; and (3) if the Claim does not involve a Contract Adjustment on the basis of Compensable Change or Deleted Work, documentation demonstrating that a notice of intent to file the Claim was timely and properly submitted as required by Subparagraph 4.3.2.2, above;

.4 a detailed justification for any remedy or relief sought by the Claim, including, without limitation, all of the following: (1) a detailed cost breakdown in the form required for submittal of Change Order Requests, which complies with the prohibition on "total cost" calculations set forth in Paragraph 7.7.15, below; and (2) job cost records substantiating the actual costs that have been incurred; and

.5 a written certification, signed by a responsible managing officer or principal of Contractor's organization who has the authority to sign contracts on behalf of Contractor and who has personally investigated the matters alleged in the Claim, in the following form:

"I hereby certify under penalty of perjury that I am a manager of (Contractor) and that I have reviewed the Claim presented herewith on Contractor's behalf and that the following statements are, to the best of my knowledge after diligent inquiry into the circumstances of such Claim, true and correct:

(i) the facts alleged in or that form the basis for the Claim are true and accurate;

(ii) I do not know of any facts or circumstances, not alleged in the Claim, that by reason of their not being alleged render any fact or statement alleged in the Claim materially misleading;

(iii) With respect to any request for money or damages alleged in or that forms the basis for the Claim the losses or damages alleged to have been suffered by Contractor were in fact suffered in the amounts and for the reasons alleged in the Claim;

(iv) With respect to any request for extension of time or claim of delay, disruption, hindrance or interference alleged in or that forms the basis for the Claim, the delays or disruption alleged to have been suffered by Contractor were in fact experienced for the durations, in the manner, and with the consequent effects on the time and/or sequence of performance of the Work, as alleged in the Claim; and,

(v) Contractor has not received payment from County for, nor has Contractor previously released County from, any portion of the Claim.

Signature: _____

Name: _____

Title: _____

Company: _____

Date: _____

4.3.4 **Noncompliance.** Failure by Contractor to comply with Paragraph 4.3.3, above, shall give County the right, without obligation, to deny the Claim or return the Claim without any response.

4.3.5 **Submission of Claims.**

.1 **Time for Filing.** All Claims and supporting documentation and certifications required to be submitted by Contractor must be submitted to the County within thirty (30) Days after the Claim arises (as "arises" is defined in Paragraph 4.3.2, above). No Claims by Contractor are permitted after Final Payment.

.2 **Manner of Filing.** A Claim shall be submitted by registered or certified mail, return receipt requested.

.3 **Condition Precedent.** Contractor's strict compliance with the requirements of this Section 4.3 as to a Claim shall be considered a condition precedent to Contractor's right to initiate or seek determination of its rights in any legal proceedings with respect to such Claim.

4.3.6 **Response to Claims by Contractor.**

.1 **Claims Response.** County shall provide a reasonable review and issue a written Good Faith Determination within forty-five (45) Days of receipt of the Claim, unless County and Contractor have by mutual agreement extended the time period. The written Good Faith Determination shall identify which portion of the Claim is disputed by County and which portion is undisputed.

.2 **Meeting with Board.** If County should need to submit and gain approval of the Board of Supervisors prior to providing the Contractor the written statement identifying the undisputed and disputed portions of the Claim, and the governing body does not meet within the forty-five (45) days or within the mutually agreed time extension, County shall have three (3) days following the next duly publicly noticed meeting of the Board of Supervisors after the forty-five (45) day period, or agreed extension, to provide Contractor a written statement identifying the disputed portion and undisputed portion of the Claim.

.3 **Payments on Undisputed Portion(s).** Any payment due on an undisputed portion of the Claim shall be processed and made within sixty (60) days after County issues its written statement. Amounts not paid in a timely manner shall bear interest at 7 percent per annum.

.4 **Failure of County to Respond.** If County should fail to respond to a Claim from Contractor within the time periods set forth in this 4.3.6 or otherwise meet the time requirements, the Claim shall be deemed rejected in its entirety. A Claim that is denied by reasons of County's failure to have responded to the Claim, or its failure to otherwise meet the requirements of Public Contract Code §9204, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.

4.3.7 **Meet and Confer.**

.1 **Dispute by Contractor.** If Contractor disputes County's Good Faith Determination and written response of a Claim by Contractor, or if County fails to respond within the prescribed time set forth herein, the Contractor may demand, in writing sent by registered or certified mail return receipt requested, an informal conference to meet and confer for settlement of the issues still in dispute. Upon receipt of such demand, County shall schedule a meet and confer conference within thirty (30) Days.

.2 Conclusion of Meet and Confer. Within ten (10) business days following conclusion of the meet and confer conference, if the Claim or any portion thereof remains in dispute, County shall provide the Contractor with a written statement identifying the portion of the Claim still in dispute and the portion that is undisputed. Any payment due on the undisputed portion shall be processed and made within sixty (60) days after such written statement is issued. Amounts not paid in a timely manner shall bear interest at 7 percent per annum.

.3 Mediation. Any disputed portion of the Claim as identified by the Contractor in writing, shall be submitted to non-binding mediation with the County and Contractor sharing the associated costs equally. The County and Contractor shall mutually agree to a mediator within ten (10) business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. Mediation includes any non-binding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assist the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

.4 If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside this section.

4.3.8 Subcontractor Claims.

.1 Subcontractor Claim. If a subcontractor or lower tier subcontractor has a claim against the County, the Contractor may present to the County a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the Contractor present a claim for work which was performed by the subcontractor or a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the County shall furnish reasonable documentation to support the claim.

.2 Contractor Response. Within forty five (45) days of receipt of the written request by the subcontractor, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the claim to the County and, if the Contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

4.3.9 Claims Based on Differing Site Conditions.

.1 Contractor Responsibility. Save and except as hereinafter provided in this Paragraph 4.3.9 for Contract Adjustments due to Differing Site Conditions, Contractor agrees at Contractor's Own Expense to assume the risk and costs of Extra Work and Delay due to concealed or unknown conditions, surface or subsurface, at the Site or in Existing Improvements.

.2 Differing Site Conditions. Differing Site Conditions are those conditions at the Site or in Existing Improvements and not otherwise reasonably ascertainable by Contractor in the performance of its obligations under the Contract Documents (including, without limitation, conditions not reasonably ascertainable by Contractor from documents or information described in Paragraph 3.2.1, above, that were provided or available to Contractor for its review prior to the Bid Closing Deadline) that constitute: (1) hazardous materials that constitute hazardous waste, as defined in California Health and Safety Code §25117, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of Applicable Laws; (2) subsurface or concealed conditions at the Site or concealed conditions in Existing Improvements which differ materially from those indicated by the Contract Documents or other information that was either reviewed by Contractor or that Contractor was given the opportunity to review prior to the Bid Closing Deadline; or (3) unknown physical conditions at the Site or concealed conditions in Existing Improvements of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

.3 Notice of Change. If Contractor encounters conditions it believes constitute Differing Site Conditions, then Contractor shall, before such conditions are disturbed, give Notice of Change as required by Paragraph 7.6.1, below, stating, without limitation, a detailed description and precise location of the conditions encountered.

.4 Investigation by County. Upon receipt of notice from Contractor as required by Subparagraph 4.3.9.3, above, County shall promptly investigate Contractor's report of Differing Site Conditions.

.5 Change Order Request. If Contractor intends to seek a Contract Adjustment based upon Differing Site Conditions, it shall submit a complete and timely Change Order Request in accordance with Paragraph 7.6.2, below, setting forth its request for a Contract Adjustment.

.6 Contract Adjustments. If, following Contractor's compliance with its obligations under this Paragraph 4.3.9, County finds that Differing Site Conditions exist, then, unless the Contractor's right to Contract Adjustment has been waived as pursuant to Paragraph 3.2.3, above, a Contract Adjustment shall be made for the resulting Compensable Change and Compensable Delay, in such amount and duration as County determines by issuance of a Good Faith Determination are reasonable and permitted by these General Conditions.

.7 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO STRICTLY COMPLY WITH THE REQUIREMENTS OF THIS PARAGRAPH 4.3.9 PERTAINING TO CONTRACT ADJUSTMENT BASED ON A CLAIM FOR DIFFERING SITE CONDITIONS SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO FURTHER RECOURSE OR RECOVERY UPON SUCH CLAIM.

.8 Final Completion. No claim by Contractor for additional compensation for Differing Site Conditions shall be allowed if asserted after Final Payment.

4.3.10 Continuous Work. Contractor shall, notwithstanding the existence of a Claim by Contractor that is disputed by County, maintain continuous performance, without interruption, suspension or slowing, of the Work and its other obligations (1) pending issuance by County of a Good Faith Determination of the Claim and (2) thereafter in compliance with the terms of such Good Faith Determination.

4.4 NOTICE OF THIRD-PARTY CLAIMS

County shall provide notification to Contractor within a reasonable time after receipt of any third-party claim relating to the Construction Contract. County shall be entitled to recover from Contractor its reasonable costs of providing such notification.

4.5 WAIVERS OF RIGHTS BY CONTRACTOR

COUNTY AND CONTRACTOR ACKNOWLEDGE THAT IT IS IN THE INTERESTS OF BOTH PARTIES THAT CHANGES, DELAYS AND CLAIMS BE IDENTIFIED, QUANTIFIED, EVALUATED AND FINALLY RESOLVED PROMPTLY, CONTEMPORANEOUSLY WITH THE CIRCUMSTANCES FROM WHICH THEY ARISE, AND THAT THERE BE CERTAINTY WITH RESPECT TO THE FINALITY OF ANY RESOLUTION OF RELATED DISPUTES. ON THOSE PREMISES, AND IN FURTHER RECOGNITION OF THE FACT THAT IT WOULD BE EXREMELY DIFFICULT OR IMPOSSIBLE TO QUANTIFY, DEMONSTRATE OR PROVE THE HARM TO COUNTY IF ANY OF THE FOREGOING PREMISES IS NOT ACHIEVED DUE TO A FAILURE BY CONTRACTOR TO COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS CONCERNING TIMELY NOTICE OR SUBMISSIONS OF NOTICES AND CLAIMS RELATING TO CHANGES, DELAY AND CONTRACT ADJUSTMENTS, COUNTY AND CONTRACTOR AGREE THAT FAILURE BY CONTRACTOR TO CONFORM TO SUCH REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL IN AND OF ITSELF CONSTITUTE SUFFICIENT CAUSE AND GROUNDS, WITHOUT THE NECESSITY OF COUNTY DEMONSTRATING ANY ACTUAL HARM OR PREJUDICE, FOR IMPOSING UPON CONTRACTOR A FULL AND UNCONDITIONAL WAIVER BY CONTRACTOR OF ITS RIGHT TO A CONTRACT ADJUSTMENT AND OF ITS RIGHTS AND RECOURSE FOR RECOVERY OF ANY RELATED LOSS BY ANY LEGAL PROCESS OTHERWISE PROVIDED FOR UNDER APPLICABLE LAWS.

4.6 GOOD FAITH DETERMINATIONS

Wherever in the Contract Documents it is provided that the County may or shall make a determination or decision in the exercise of good faith (including, without limitation, provisions for a Good Faith Determination by County), any such determination or decision that the person exercising such right on behalf of County believes in good faith to be a proper

exercise of County's rights and to have a reasonable basis in fact, whether or not such determination is in fact proper, reasonable or correct or adjudged to be so, shall be complied with by Contractor without Delay to Contractor's performance of the Work. However, unless the Contract Documents expressly provides otherwise, neither such good faith determination or decision nor Contractor's compliance therewith shall be interpreted as precluding the Contractor from exercising its rights to seek adjudication of its rights in the manner permitted by these General Conditions or Applicable Laws.

4.7 ESCROW BID DOCUMENTS

If the Bidding Documents obligate Contractor to submit Escrow Bid Documents, then submission by Contractor of its Escrow Bid Documents shall constitute a warranty and representation by Contractor that it has no other written documents or electronic files containing any information that Contractor was required to include, but failed to include, as part of its performing such obligation and Contractor agrees it shall have no right to submit for consideration by County, or offer into evidence in legal proceedings, in support of a request for Contract Adjustment or a Claim any such documentation or electronic files that Contractor so failed to include in its Escrow Bid Documents.

ARTICLE 5 SUBCONTRACTORS

5.1 SUBSTITUTION

5.1.1 **Substitutions Allowed.** There shall be no substitution of or addition to the Subcontractors except as permitted by Chapter 4 (commencing at §4100), Division 2, Part 1 of the California Public Contract Code (the "Act").

5.1.2 **Contractor's Own Expense.** Any increase in the cost or time of performance of the Work resulting from the replacement, substitution or addition of a Subcontractor shall be borne solely by Contractor at Contractor's Own Expense.

5.1.3 **Substantiation of Compliance.** At any time during performance of the Work it shall be the responsibility and burden of Contractor, if requested by County, to present clear and convincing evidence that Contractor is, and all times during the bidding and Award of the Construction Contract was, in full compliance with all of the applicable provisions of the Act. Failure by Contractor to present such evidence when requested shall be deemed a breach of this Section 5.1 and of the Act, thereby entitling County to exercise any or all of its rights and remedies under the Contract Document or Applicable Laws, including, without limitation, the right to cancel the Construction Contract or assess any penalties provided for by the Act.

5.1.4 **Splitting Prohibited.** Any attempt by Contractor to avoid compliance with the Act, such as, but not limited to, by splitting the work of subcontracts with Subcontractors into separate contracts or changes orders so as to not exceed the monetary threshold of the Act applicable to listing of Subcontractors, is strictly prohibited.

5.2 SUBCONTRACTUAL RELATIONS

5.2.1 **Written Agreements.** Contractor shall, by written agreement entered into between the Contractor and Subcontractors no later than twenty (20) Days after Award, require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents and to assume toward Contractor all the obligations and responsibilities which Contractor, by the Contract Documents, assumes toward County. Each subcontract agreement shall preserve and protect the rights of County under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against Contractor that Contractor, by the Contract Documents, has against County. Contractor shall require each first-Tier Subcontractor to enter into similar agreements with their sub-subcontractors. Copies of applicable portions of the Contract Documents shall be made available by Contractor to the first-Tier Subcontractors and each Subcontractor shall similarly make copies of such Contract Documents available to each Subcontractor of a lower-Tier with which it contracts. Without limitation to the foregoing, each contract that is entered into by a Subcontractor, of any Tier, shall, without limitation, require the Subcontractor:

.1 to perform the Work in accordance with the terms of the Contract Documents;

.2 to assume toward Contractor all the obligations and responsibilities which Contractor assumes toward County by the Contract Documents;

.3 to preserve and protect the rights of County under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights;

.4 to waive all rights (including, without limitation, rights of subrogation) that the Subcontractor or its insurers may have against County and others required by the Contract Documents to be named as additional insureds, for Losses covered by insurance carried by Contractor or County, except for such rights as the Subcontractor may have to the proceeds of such insurance held by County or such other additional insured;

.5 to afford County and entities and agencies designated by County the same rights and remedies afforded to them under the Contract Documents with respect to access to, and the right to audit and copy at County's cost, all of the Subcontractor's books, records, contracts, correspondence, instructions, drawings, receipts, vouchers, purchase orders, memoranda and other records and documents relating to the Work and requiring the Subcontractor to preserve all such records and other items for a period of ten (10) years after Final Completion;

.6 to recognize the rights of the County under Section 5.3, below, including, without limitation, the County's right to (1) accept assignment of the Subcontractor's agreement, (2) accept assignment of Contractor's rights as obligee under a performance bond furnished by a first-Tier Subcontractor, (3) to retain the Subcontractor pursuant to the terms of its agreement with Contractor to complete the unperformed obligations under its agreement, and, (4) if requested by the County, to require that the Subcontractor execute a written agreement on terms acceptable to the County confirming that the Subcontractor is bound to the County under the terms of its agreement with Contractor;

.7 to submit applications for payment, requests for change orders and extensions of time and claims, and to comply with all other notice and submission requirements of the Contract Documents, sufficiently in advance to allow Contractor time to comply with its obligations under the Contract Documents;

.8 to purchase and maintain insurance in accordance with the requirements of the Contract Documents;

.9 to defend and indemnify the Indemnitees on the same terms as provided in Section 3.18, above;

.10 to comply with the nondiscrimination (Article 16, below) and prevailing wage (Section 3.19, above) provisions of these General Conditions;

.11 limiting the Subcontractor's right to additional compensation or extension of time due to Differing Site Conditions and Design Discrepancies in accordance with the provisions of Section 3.2, above;

.12 to provide for a right of termination for convenience by Contractor that limits the Subcontractor's right to compensation to an allocable share of the subcontract price that corresponds to the percentage of the Work properly performed by the Subcontractor, with no additional sum payable for any other Losses, including, without limitation, prospective damages, lost profits or consequential damages, of any kind; and

.13 to provide that time is of the essence to each of the Subcontractor's obligations.

5.2.2 **Copies.** Contractor shall, upon request by County made at any time, furnish to County true, complete, and executed copies of all contracts with the Subcontractors and amendments, modifications and change orders thereto. Progress payments shall not be made for items of the Work for which County has not received such documents following request therefor by County.

5.2.3 **No Brokering.** Contractor shall not permit any portion of the Work to be contracted to a firm acting as a broker, factor or other entity not actually performing a substantial portion of the Work with its own forces; provided, however, that nothing herein shall be interpreted as precluding the right of a Subcontractor who has agreed to provide all of the materials and labor for a trade to subcontract the labor portion only to a sub-subcontractor.

5.2.4 Third-Party Rights. Contractor acknowledges that County is an intended third-party beneficiary to all contracts between Contractor and its first-Tier Subcontractors. Notwithstanding the foregoing or anything else to the contrary in the Contract Documents, there is no intent on the part of County or Contractor to create any rights (including, without limitation, third-party beneficiary rights) in favor of any Subcontractor, of any Tier, against County and nothing contained in the Contract Documents and no course of conduct, act or omission on the part of County shall be construed as creating a direct or indirect contractual right in favor of any Subcontractor, of any Tier, and against County.

5.2.5 All Subcontractor Tiers. It is the Contractor's obligation to see to it that all obligations of the Contractor are assumed by (or, "flow down") to the Subcontractors, of every Tier, by the inclusion of contractual provisions requiring each of the Subcontractors, of every Tier, to bind not only themselves but their lower-Tier Subcontractors to the obligations assumed by Contractor under the Contract Documents.

5.3 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

5.3.1 Contingent Assignment. Contractor hereby contingently assigns to County, or to such person or entity as County, in its sole and absolute discretion, designates, all of its interest in subcontracts entered into by Contractor with its first-Tier Subcontractors. If a first-Tier Subcontractor has provided a performance bond, then Contractor's rights under such performance bond are likewise hereby deemed contingently assigned to County or its designee and provision shall be made in the performance bond for surety's consent to such contingent assignment.

5.3.2 Acceptance by County. The contingent assignments provided for by this Section 5.3 will be effective only as to those subcontracts and performance bonds which County or its designee accepts in writing. Said acceptance is the sole condition upon which the effectiveness of such assignments are contingent. County or its designee may accept any such assignment at any time during the course of the Work and prior to Final Completion. Such contingent assignments are part of the consideration to County for entering into the Construction Contract with Contractor and may not be withdrawn prior to Final Completion.

5.3.3 County Obligation. County's or its designee's sole obligation in the event it accepts a contingent assignment of a subcontract under this Section 5.3 shall be to pay in accordance with the terms of such subcontract for Work performed after written notice of acceptance of such assignment. In the event County directs that such assignment be made to County's designee, then such designee only, and not County, shall be solely liable under such assignment for Work performed after written notice of acceptance of such assignment.

5.4 COMMUNICATIONS BY COUNTY

County shall have the right to communicate, orally or in writing, with the Subcontractors with respect to matters that are related to Contractor's performance of its obligations under the Contract Documents. Nothing herein shall be interpreted as extending to County the right as part of such communications to direct the manner in which any Subcontractor performs the Work. Except as otherwise provided in the Construction Contract or these General Conditions, Contractor shall be provided with a copy of all such communications that are in writing. Such communications shall not create, or be interpreted as creating, any contractual obligation of County to any Subcontractor.

5.5 DOCUMENT AVAILABILITY

Contractor shall make available to each proposed Subcontractor with whom it enters into a contract for performance of any portion of the Work, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound so as to ensure that all matters disclosed thereby are taken into consideration and included in the terms of such contracts and shall identify to such Subcontractor the terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. The Subcontractors shall similarly be required to make copies of applicable portions of such documents available to their respective proposed sub-subcontractors or sub-subconsultants.

5.6 NO LIABILITY OF COUNTY

Nothing set forth in this Article 5, and no action taken by County with respect to review or approval of the Subcontractors or their contracts, shall impose any liability or responsibility upon County nor relieve Contractor of its responsibilities under the Contract Documents or Applicable Laws.

**ARTICLE 6
COUNTY'S OWN FORCES AND SEPARATE CONTRACTORS**

6.1 COUNTY'S RIGHT TO PERFORM CONSTRUCTION WITH OWN FORCES AND TO AWARD SEPARATE CONTRACTS

6.1.1 **Right of County.** County reserves the right to perform construction or operations related to the Project with County's own forces and to award other contracts to Separate Contractors in connection with other portions of the Project or other construction or operations on the Site.

6.1.2 **Separate Contractors.** Intentionally omitted.

6.1.3 **Coordination.** Contractor shall, when directed to do so by County, participate with the Separate Contractors and County in reviewing the Separate Contractors' construction schedules. Contractor will cooperate with Separate Contractors so as to facilitate the general progress of the Project.

6.1.4 **Disputes.** Intentionally omitted.

6.1.5 **Remedy.** Intentionally omitted.

6.2 MUTUAL RESPONSIBILITY

6.2.1 **Use of Site.** Nothing contained in the Contract Documents shall be interpreted as granting Contractor exclusive use or occupancy of the Site. Contractor shall afford County's own forces and the Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities. Contractor shall not Delay the work of the Separate Contractors or County's own forces.

6.2.2 **Adjoining Work.** If part of Contractor's performance of the Work depends for proper execution or results upon construction or operations by County's own forces or Separate Contractors, Contractor shall, prior to proceeding with that portion of the Work, carefully inspect such construction and operations and promptly report in writing to the County apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Contractor will be responsible, at Contractor's Own Expense, for Losses to County resulting from any such discrepancies or defects not reported in accordance with this Paragraph 6.2.1 that were apparent or that should have been apparent to Contractor on careful inspection.

6.2.3 **Damage.** Contractor shall promptly remedy Loss caused by Contractor or its Subcontractors to completed construction or partially completed construction on the Site, or to property of County or the Separate Contractors.

6.2.4 **Disputes.** Contractor shall notify the County in writing within five (5) Days if it believes it has experienced or is experiencing any Delay or Loss due to the activities of County's own forces or the Separate Contractors or in the event of any dispute with County's own forces or a Separate Contractor.

6.2.5 **Settlement of Disputes.** If Contractor or any Subcontractor causes a Loss to a Separate Contractor, then Contractor will promptly settle the matter directly with the Separate Contractor and will defend, indemnify and hold County and the other Indemnitees harmless from any and all effects of such Loss in accordance with the terms of Section 3.18, above.

6.3 ALLOCATION OF CLEANUP COSTS

If a dispute arises among Contractor, the Separate Contractors and/or County as to the responsibility for maintaining the Site and surrounding area free from waste materials and rubbish, County may clean up such waste materials and rubbish and allocate the cost among those responsible as County determines in good faith to be just.

**ARTICLE 7
CHANGES IN THE WORK**

7.1 CHANGES

7.1.1 **General.** County is authorized to make Changes in the Work in accordance with the provisions of this Article 7.

7.1.2 **Contract Adjustments.** Contract Adjustments shall only be permitted as follows: (1) the Contract Price shall only be adjusted by means of a Change Order or Unilateral Change Order for Compensable Change, Deleted Work or Compensable Delay; and (2) the Contract Time shall be adjusted by means of a Change Order or Unilateral Change Order for Excusable Delay, Compensable Delay or Deleted Work. All Contract Adjustments to the Contract Price shall conform, without limitation, to the requirements of this Article 7. All Contract Adjustments to the Contract Time shall conform, without limitation, to the applicable requirements of this Article 7 and Article 8, below.

7.1.3 **Exclusive Rights.** The rights expressly set forth in the Contract Documents for Contract Adjustments constitute Contractor's exclusive rights for additional compensation or extensions of time and are intended to be in lieu of and wholly replace any other such rights and remedies that Contractor has under Applicable Laws for recovery or relief on account of Loss or Delay in connection with performance of the Work, it being the intent of the County and Contractor that if circumstances arise for which the Contract Documents do not provide to Contractor an express right to a Contract Adjustment, then such omission of an express right shall conclusively be deemed to mean that no right to a Contract Adjustment was intended; and, consistent with that intent, no right to a Contract Adjustment on account of such circumstances shall by any means, legal or equitable, of interpretation, construction, inference, implication or application be considered, found or adjudged to exist.

7.1.4 **Written Authorization.** Any Change performed by Contractor pursuant to any direction other than a duly authorized and executed Change Order, Unilateral Change Order or Construction Change Directive shall be at Contractor's Own Expense.

7.1.5 **Prompt Performance.** Subject to the procedures set forth in this Article 7 and elsewhere in the Contract Documents, all Changes shall be performed promptly and without Delay.

7.2 SIGNATURES AND AUTHORIZATIONS

7.2.1 **Parties.** A Change Order shall be executed by County and Contractor. A Unilateral Change Order shall be executed by the County. Construction Change Directives shall be executed in accordance with Section 7.5, below.

7.2.2 **Form.** Change Orders, Unilateral Change Orders and Construction Change Directives shall be executed using forms furnished by County or, if requested by County, using forms furnished by Contractor that are approved by County.

7.2.3 **Authorization.**

.1 **Compensable Changes.**

(1) **Director of Facilities Management.** A Compensable Change shall be performed by Contractor only if authorized by a Change Order, Unilateral Change Order or Construction Change Directive signed by the Director of Facilities Management in accordance with the requirements of this Article 7; provided, however, that the Director of Facilities Management's authority to bind the County to a Contract Adjustment shall be subject to the limitations of Public Contract Code §20142.

(2) **County's Project Manager.** The person identified by County as its "project manager" for the Project shall have the right to exercise the Director of Facilities Management's authority under this Paragraph 7.2.3, but only if and to the extent that such authority is expressly given to such project manager in a writing signed by the Director of Facilities Management (and not by a designee of the Director of Facilities Management).

(3) **Board of Supervisors.** Except as otherwise provided in Subparagraph 7.2.3.1 (4), below, if a Contract Adjustment increasing the Contract Price would exceed the limitations of Public Contract Code §20142, then in addition to written authorization by the Director of Facilities Management, such Compensable Change shall be performed only if approved by a vote of the Board of Supervisors in accordance with the requirements of Applicable Laws.

(4) **Disputed Changes.** If a dispute arises between County and Contractor over (a) whether a particular portion of the Work constitutes a Compensable Change or (b) the amount of the Contract Adjustment to which Contractor is entitled on account of a Compensable Change, then, notwithstanding such dispute, the Contractor shall, if ordered to do so in a Construction Change Directive signed by the Director of Facilities Management, perform the disputed Work without Delay. Such direction by County shall not be interpreted as an agreement or admission by County that the disputed Change constitutes Extra Work or a Compensable Change for which Contractor is entitled to a Contract Adjustment. Compliance by Contractor with such direction shall not be interpreted as a waiver of Contractor's right to a Contract Adjustment if and to the extent that Contractor is entitled to a Contract Adjustment or Claim under the terms of the Contract Documents, including, without limitation, the right of Contractor to recover upon a Claim for the amount of any excess in the event that it is adjudged that the amount of the Contract Adjustment to which Contractor is entitled exceeds the limits of Public Contract Code §20142.

.2 WRITING OF ESSENCE. IT IS OF THE ESSENCE TO THE CONSTRUCTION CONTRACT BETWEEN CONTRACTOR AND COUNTY THAT ALL CHANGES MUST BE AUTHORIZED IN ADVANCE, IN WRITING, AS REQUIRED BY THIS ARTICLE 7. ACCORDINGLY, NO VERBAL DIRECTIONS, COURSE OF CONDUCT BETWEEN THE PARTIES, EXPRESS OR IMPLIED ACCEPTANCE OF CHANGES OR OF THE WORK, OR CLAIM THAT THE COUNTY HAS BEEN UNJUSTLY ENRICHED (WHETHER OR NOT THERE HAS BEEN SUCH ENRICHMENT) SHALL BE THE BASIS FOR A CONTRACT ADJUSTMENT IF CONTRACTOR HAS NOT OBTAINED ADVANCE WRITTEN AUTHORIZATION IN THE MANNER REQUIRED BY THIS ARTICLE 7.

7.3 CHANGE ORDERS

7.3.1 **Purpose.** The purpose of a Change Order is to establish the terms of the County's and Contractor's mutual agreement to a Contract Adjustment.

7.3.2 **Content.** A Change Order is a written instrument, prepared by the County, stating:

- .1 a Compensable Change or Deleted Work;
- .2 a Compensable Delay or Excusable Delay;
- .3 the amount of the Contract Adjustment, if any, to the Contract Price; and/or
- .4 the extent of the Contract Adjustment, if any, to the Contract Time.

7.4 UNILATERAL CHANGE ORDERS

7.4.1 **Purpose.** The purpose of a Unilateral Change Order is to establish the County's estimate of a disputed Contract Adjustment.

7.4.2 **Good Faith Determination.** The County's determination in a Unilateral Change Order of a Contract Adjustment shall be based upon a Good Faith Determination by County of the Contract Adjustment that is appropriate under the circumstances and consistent with the terms of the Contract Documents.

7.4.3 **Claim by Contractor.** If Contractor disputes any portion of the County's Good Faith Determination of a Contract Adjustment that is set forth in a Unilateral Change Order, Contractor shall file, within thirty (30) Days after issuance of the Unilateral Change Order by County, a Claim pursuant to Section 4.3, above. The amount of the Contract Adjustment requested in the Claim shall not exceed the difference between the amount (either in terms of dollar amount or number of Days) of the Contract Adjustment requested by Contractor and the amount (either in terms of dollar amount

or number of Days) of the Contract Adjustment granted in the Unilateral Change Order. Contractor shall have no reserved right, and hereby waives any such right that may exist under Applicable Laws, to seek in such Claim a Contract Adjustment or recovery that is based upon any amount (either in terms of dollar amount or number of Days) that is in excess of such difference.

7.4.4 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO SUBMIT A CLAIM PURSUANT TO SECTION 4.3, ABOVE, WITHIN THIRTY (30) DAYS AFTER ISSUANCE OF A UNILATERAL CHANGE ORDER BY COUNTY SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO FURTHER RECOURSE OR RECOVERY BASED ON AN ASSERTION THAT THE AMOUNT OF THE CONTRACT ADJUSTMENT ON ACCOUNT OF THE CHANGE OR DELAY DESCRIBED IN SUCH UNILATERAL CHANGE ORDER SHOULD BE DIFFERENT THAN THE AMOUNT OF THE COUNTY'S GOOD FAITH DETERMINATION OF THE CONTRACT ADJUSTMENT AS SET FORTH IN SUCH UNILATERAL CHANGE ORDER.

7.5 CONSTRUCTION CHANGE DIRECTIVES

7.5.1 **Purpose.** The purpose of a Construction Change Directive is to: (1) direct the performance of a Change that does not involve a Contract Adjustment; (2) establish a mutually agreed basis for compensation to Contractor for a Compensable Change under circumstances where performance of the Compensable Change needs to proceed in advance of the County performing a full evaluation of the Contractor's rights relative to a Contract Adjustment; or (3) direct performance of Work or a Change with respect to which there exists a dispute or question regarding the terms of a Contract Adjustment.

7.5.2 **No Contract Adjustment.** A Construction Change Directive that directs the performance of Work or a Change that does not involve a Contract Adjustment to the Contract Price or Contract Time may be authorized by either the Director of Facilities Management or the County's project manager and shall be promptly performed by Contractor so as to not cause Delay to any other portion of the Work.

7.5.3 **Agreed Contract Adjustment.** A Construction Change Directive that contains a complete or partial agreement by the County and Contractor with respect to the Contractor's right to, or the amount of, a Contract Adjustment shall be authorized in accordance with, conform to the requirements of and be binding upon County and Contractor as provided for in, this Paragraph 7.5.3.

.1 **Complete Agreement.** Each Construction Change Directive involving a Compensable Change or Deleted Work with respect to which there is complete agreement on the terms of the Contract Adjustment shall comply with the following:

(1) **Statement of Agreement.** A statement shall be included that the County and Contractor are in agreement on all of the terms of the Contract Adjustment related to performance of such Compensable Change and set forth a full description of the terms of the Contract Adjustment, including, without limitation, its effect on the Contract Price and Contract Time.

(2) **Legal Effect.**

(a) **Upon Contractor.**

THE AGREED TERMS OF THE CONTRACT ADJUSTMENT WITH RESPECT TO WHICH THERE IS A STATEMENT OF FULL AGREEMENT ON THE TERMS OF THE CONTRACT ADJUSTMENT FOR A CHANGE IN THE WORK SHALL BE FINAL AND BINDING UPON CONTRACTOR. ANY RIGHT OR CLAIM BY CONTRACTOR FOR ANY ADDITIONAL COMPENSATION OR EXTENSION OF TIME RELATING DIRECTLY OR INDIRECTLY TO SUCH CHANGE SHALL BE CONCLUSIVELY DEEMED WAIVED BY CONTRACTOR, EVEN IF THE CIRCUMSTANCES GIVING RISE TO SUCH ADDITIONAL COMPENSATION OR EXTENSION OF TIME WERE NOT SUSPECTED BY OR KNOWN TO THE CONTRACTOR AT THE TIME OF EXECUTION OF THE CONSTRUCTION CHANGE DIRECTIVE AND IF SUSPECTED OR KNOWN WOULD HAVE BEEN CONSIDERED BY CONTRACTOR TO HAVE

BEEN MATERIAL TO CONTRACTOR'S AGREEMENT TO THE CONTRACT ADJUSTMENT SET FORTH IN THE CONSTRUCTION CHANGE DIRECTIVE.

(b) **Upon County.** Intentionally omitted.

.2 **Partial Agreement.** Each Construction Change Directive involving a Compensable Change or Deleted Work with respect to which there is only agreement on a portion of the terms of a Contract Adjustment shall comply with the following:

(1) **Agreed Terms.** The Construction Change Directive shall state those terms of the Contract Adjustment as to which there is agreement.

(a) **Legal Effect.** Except to the extent of any additional open (i.e., non-agreed) terms stated or reserved in the Construction Change Directive, such agreement shall have the same legal effect set forth in Subparagraph 7.5.3.1 (2), above.

(b) **Time and Materials.** In the event that County and Contractor agree in the Construction Change Directive to the "time and materials" method of calculation set forth in Subparagraph 7.7.1.1 (4), below, but do not agree upon a maximum price, then the total cost to County for the Work covered by the Construction Change Directive shall under no circumstances exceed a price that is reasonable, competitive and fair to County given the amount and type of Work involved and the circumstances under which the Compensable Change is performed.

(2) **Open Terms.** The Construction Change Directive shall state those terms of the Contract Adjustment that are "open" or "disputed"; meaning those terms as to which the County and Contractor did not reach agreement.

(a) **ROM Estimate.** If such open terms involve the amount of the Contract Adjustment to the Contract Price or Contract Time on account of a Compensable Change, then the Construction Change Directive shall also include a Reasonable Order of Magnitude Estimate prepared by Contractor, or prepared by County and acknowledged in writing as accepted by Contractor, of the probable amount of the Contract Adjustment to the Contract Price and Contract Time associated with performance of the Compensable Change.

(b) **Legal Effect.** A Reasonable Order of Magnitude Estimate constitutes neither (i) a guarantee by Contractor that the amount of the Contract Adjustment to the Contract Price or Contract Time that may be associated with the Compensable Change or Deleted Work covered by such Construction Change Directive may not exceed the Reasonable Order of Magnitude Estimate nor (ii) authorization or agreement by County to a Contract Adjustment based on the amounts set forth in such Reasonable Order of Magnitude Estimate.

(c) **Time and Materials.** If County and Contractor state in the Construction Change Directive an agreement that the Contractor is entitled to a Contract Adjustment to the Contract Price on account of a Compensable Change, but do not state therein an agreement upon the method of calculation to be used for the Contract Adjustment from among the optional methods of calculation set forth in Paragraph 7.7.1, below, and if the County nonetheless directs Contractor to perform the Compensable Change pending future agreement on the amount of the Contract Adjustment, then it shall be conclusively presumed that County and Contractor have agreed that such Compensable Change shall be performed and compensated based upon the "time and materials" method of calculation set forth in Subparagraph 7.7.1.1 (4), below, and that the total Contract Adjustment for performance thereof shall under no circumstances exceed a price that is reasonable, competitive and fair to County given the amount and type of Work involved and the circumstances under which the Compensable Change is performed.

7.5.4 Disputed Contract Adjustment. Each Construction Change Directive involving a Contract Adjustment with respect to which there is a dispute or partial agreement shall, if Contractor is ordered to do so in a Construction Change Directive signed by the Director of Facilities Management, be performed by Contractor without Delay. Except as otherwise provided elsewhere in this Section 7.5, with respect to any open terms as to which the County and Contractor have not reached agreement both County and Contractor shall be deemed to have reserved their respective rights and defenses.

7.5.5 Other Notices. With respect to any Contract Adjustment or portion of a Contract Adjustment that is not fully resolved in a Construction Change Directive, neither issuance nor execution of such Construction Change Directive shall be interpreted as relieving Contractor of its obligation to comply with the requirements of these General Conditions relative to timely submission of notices required by the Contract Documents, including, without limitation, Notice of Change, Change Order Request, Notice of Delay or Request for Extension.

7.6 PROCEDURES

7.6.1 Notice of Change.

.1 Submission. Contractor shall submit a written Notice of Change to County if any instruction, request, drawing, specification, action, condition, omission, default or other circumstance occurs that constitutes a Compensable Change, Deleted Work, Compensable Delay or other matter that may involve or require a Contract Adjustment (additive or deductive). Such notice shall be provided prior to commencement of performance of the Work affected and no later than five (5) working days after the Discovery Date of such circumstance.

.2 Form. Notices of Change shall be provided using forms furnished by County or, if requested by County, using forms furnished by Contractor that are approved by County. Failure by County to request or approve a particular form shall not relieve Contractor of its obligation to provide a Notice of Change in a written form that complies with the requirements specified in Subparagraph 7.6.1.3, below.

.3 Content. Each Notice of Change in order to be considered complete shall include:

(1) a general statement of the circumstances giving rise to the Notice of Change (including, without limitation, identification of any related Construction Change Directive);

(2) a Reasonable Order of Magnitude Estimate by Contractor of any related Contract Adjustments (additive and deductive) to the Contract Price; and,

(3) if such circumstances involve a right to adjustment of the Contract Time due to Compensable Delay or Excusable Delay that has not been waived pursuant to Subparagraph 8.2.2.4, below, or Subparagraph 8.2.3.4, below, Contractor shall include, if not previously provided, a complete and timely Notice of Delay.

.4 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO PROVIDE A COMPLETE AND TIMELY NOTICE OF CHANGE UNDER CIRCUMSTANCES WHERE A NOTICE OF CHANGE INVOLVING A CHANGE IS REQUIRED BY THIS PARAGRAPH 7.6.1 SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO A CONTRACT ADJUSTMENT ON ACCOUNT OF SUCH CIRCUMSTANCES AND A WAIVER OF ANY RIGHT TO FURTHER RECOURSE OR RECOVERY BY REASON OF OR RELATED TO SUCH CHANGE.

.5 Deductive Adjustments. Failure by Contractor to submit a timely or proper Notice of Change under circumstances in which a Notice of Change is required shall in no way affect County's right to any deductive Contract Adjustment on account of such circumstances.

7.6.2 Change Order Request.

.1 Submission. With respect to any matter that may involve or require a Contract Adjustment (additive or deductive) of the Contract Price, Contractor shall, within fourteen (14) Days after receipt by the County of a Notice of Change pursuant to Paragraph 7.6.1, above, submit to the County a written Change Order Request.

.2 Form. Change Order Requests shall be provided using forms furnished by County or, if requested by County, using forms furnished by Contractor that are approved by County. Failure by County to request or approve a particular form shall not relieve Contractor of its obligation to provide a Change Order Request in a written form that complies with the requirements stated in Subparagraph 7.6.2.3, below.

.3 Content. Each Change Order Request in order to be considered complete shall include:

(1) a detailed description of the circumstances for the Compensable Change, Deleted Work or Compensable Delay;

(2) a complete, itemized cost breakdown (additive and deductive) of the Allowable Costs that form the basis for the Contractor's request for Contract Adjustment, including: (a) if the pricing is based on time and materials charges, all of Contractor's and each Subcontractor's Allowable Costs (including, without limitation, quantities, hours, unit prices, and rates) and Allowable Markups and (b) if the pricing is in the form of a lump sum price a detailed breakdown of the lump sum price into its component and individual items of Allowable Costs and Allowable Markup; and

(3) if such circumstances involve a right to a Contract Adjustment of the Contract Time due to Compensable Delay or Excusable Delay that has not been waived pursuant to Subparagraph 8.2.2.4, below, or Subparagraph 8.2.3.4, below, Contractor shall include, if not previously provided, a complete and timely Request for Extension.

.4 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO PROVIDE A COMPLETE AND TIMELY CHANGE ORDER REQUEST UNDER CIRCUMSTANCES WHERE A CHANGE ORDER REQUEST INVOLVING A CHANGE IS REQUIRED BY THIS PARAGRAPH 7.6.2 SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO A CONTRACT ADJUSTMENT ON ACCOUNT OF SUCH CIRCUMSTANCES AND A WAIVER OF ANY RIGHT TO FURTHER RECOURSE OR RECOVERY BY REASON OF OR RELATED TO SUCH CHANGE.

.5 Deductive Adjustments. Failure by Contractor to submit a timely or proper Change Order Request under circumstances in which a Change Order Request is required shall in no way affect County's right to any deductive Contract Adjustment on account of such circumstances.

7.6.3 Formal Notice of Essence. Contractor recognizes and acknowledges that timely submission of a formal Notice of Change and Change Order Request, whether or not the circumstances of the Change may be known to the County or available to County through other means, is not a mere formality but is of crucial importance to the ability of County to promptly identify, prioritize, evaluate and mitigate the potential effects of Changes. Any form of informal notice, whether verbal or written (including, without limitation, statements in Requests for Information, statements at regular job meetings or entries on monthly reports, daily logs or job meeting minutes), that does not strictly comply with the formal requirements of Paragraph 7.6.1, above, and Paragraph 7.6.2, above, shall therefore be insufficient.

7.7 PRICING

7.7.1 Basis of Calculation.

.1 Changes Not Involving Time. Contract Adjustments to the Contract Price on account of Compensable Changes or Deleted Work, other than Contract Adjustments to the Contract Price for Compensable Delay, shall be calculated according to one of the following methods:

(1) **Lump Sum.** By mutual acceptance of a lump sum proposal from Contractor based solely on Allowable Costs and Allowable Markups, that is properly itemized and supported by sufficient substantiating data to permit evaluation.

(2) **Unit Prices.** By the unit prices set forth in the Construction Contract or such other unit prices as are subsequently and mutually agreed to in writing between the County and Contractor, with no amount added thereto for Allowable Markups.

(3) Estimating Guides. For Compensable Changes with respect to which County elects to make a unilateral and final determination pursuant to Paragraph 7.7.11, below, by the sum of all the following:

(a) Materials. The reasonable value of materials and equipment documented as having been actually incorporated into the Work, which reasonable value may be less but shall never be more than Contractor's actual Allowable Costs therefor.

(b) Labor. An estimate of the reasonable costs of labor, installation and other services using the lower of the estimated prices for the locale of the Project (or if prices are not reported for the locale of the Project, the estimated prices that are reported for the region in which the Project is located) as reported in following recognized estimating guides: (i) R. S. Means Company, Inc. Building Construction Cost Data, Western Region - Latest Edition, P.O. Box 800 Kingston, MA 02364-800; or (ii) Lee Saylor, Inc. Current Construction Costs - Latest Edition, 9420 Topanga Canyon Boulevard, Woodland Hills, CA 91311.

(c) Allowable Markup. The amount that results when the applicable Allowable Markup is applied to the sum of the amounts derived from preceding Clauses (a) and (b) of this Subparagraph 7.7.1.1 (3).

(4) Time and Materials.

(a) Compensable Changes.

(i) Contract Adjustment. With respect to Compensable Changes, if none of the methods provided for in Subparagraphs 7.7.1.1 (1) through 7.7.1.1 (3), above, is applicable, then the additive amount increasing the Contract Price shall be calculated by taking (A) the total of the reasonable expenditures by Contractor and its Subcontractors, documented in the manner required by Paragraph 7.7.2, below, for Allowable Costs that are actually and directly incurred and paid in the performance of the Compensable Change, not to exceed for any Compensable Change a price that is reasonable, competitive and fair to County given the amount and type of Work involved and the circumstances under which the Compensable Change is performed, and (B) adding thereto the amount which results when the applicable Allowable Markups are applied to such total specified in preceding Clause (A) of this Subparagraph 7.7.1.1 (4) (a) (1).

(ii) T & M/Guaranteed Maximums. A Contract Adjustment that is calculated pursuant to this Subparagraph 7.7.1.1 (4) shall be subject to a not-to-exceed or guaranteed maximum price if such not-to-exceed or guaranteed maximum price has been mutually agreed upon between County and Contractor.

(iii) Lump Sum Options. If Contractor has reason to believe that a lump sum or unit price for a Subcontractor's performance of a portion of Extra Work authorized to be performed on a time and materials basis is available and Contractor has reason to believe such price is lower than the price that would be charged by the Subcontractor pursuant to the foregoing time and materials calculation, then Contractor has an obligation to inform County of that fact (along with the provision to the County of a complete itemized breakdown in accordance with Subparagraph 7.6.2.3(2), above) so as to afford County the opportunity, on a fully informed basis as to the component Allowable Costs and Allowable Markups that comprise such price, to avail itself of such favorable pricing.

(b) Deleted Work. With respect to Deleted Work (whether or not the Deleted Work involves a related Compensable Change as described in Paragraph 7.7.8, below), if none of the methods provided for in Subparagraphs 7.7.1.1 (1) through 7.7.1.1 (3), above, is applicable, then, in addition to the reduction, if any, that may be due to Owner pursuant to Subparagraph 8.2.6.2, below, (pertaining to Contract Adjustments shortening the Contract Time due to Deleted Work) and any additional reductions or credits to which County may be entitled under Paragraph 7.7.5, below, the Contract Price shall be reduced by the greater of either:

(i) the value assigned to the Deleted Work in the Schedule of Values attached to the Construction Contract, inclusive of all estimated markups by Contractor and any Subcontractor for overhead and profit set forth in the Schedule of Values (or, if insufficient detailed information on costs, overhead and profit for the Deleted Work is explicitly assigned in the Schedule of Values, as derived from the cost, bidding and/or estimating information that formed the basis for the establishment of the values set forth in such Schedule of Values); or

(ii) a reasonable estimate of the value of the Deleted Work (inclusive of all costs, overhead and profit) as of the date that the Construction Contract was executed by County and Contractor.

.2 Changes Involving Time. Contract Adjustments that are based on an extension of the Contract Time for Compensable Delay or a shortening of the Contract Time due to Deleted Work shall be calculated in the manner stated in the provisions of Section 4.4 of the Construction Contract and Article 8, below. Contract Adjustments that are based on an acceleration in performance of the Work that is ordered by County in writing to overcome a Compensable Delay for which the Contractor is entitled to an extension of the Contract Time that has been properly requested and is not granted by County due to a County decision to accelerate rather than extend the Contract Time shall be calculated in the manner stated in the provisions of Article 8, below.

7.7.2 Time and Materials Documentation. Without limitation to any other provisions of the Contract Documents, Contractor's right to reimbursement of Allowable Costs incurred by Contractor or Subcontractors in the performance of a Compensable Change for which the Contract Adjustment is calculated pursuant to the time and materials method set forth in Subparagraph 7.7.1.1 (4), above, shall be conditioned on Contractor's compliance with the following conditions with respect to documentation of the Extra Work that is involved in the performance of the Compensable Change:

.1 Labor. At the close of each Day on which such Extra Work is performed, Contractor shall submit to County and, if requested, to the Inspector of Record, an Extra Work report, on forms provided by County, that sets forth with respect to each and all of the actual hours spent in performance of the Extra Work on the Day that the Extra Work was performed the following: the names of the workers, their classifications, hours worked and hourly rates. Such forms shall include a written certification by Contractor's project manager or superintendent at the time of submission that the information contained therein is complete and accurate.

.2 Materials, Equipment. At the close of each Day on which such Extra Work is performed, Contractor shall submit to County and, if requested, to the Inspector of Record, an Extra Work report, on forms provided by County, that sets forth with respect to each and all of the materials and equipment used or consumed in the performance of the Extra Work on the Day that the Extra Work was performed, the following: a list of the materials and equipment, prices or rates charged, in the case of equipment a description of the type of equipment, identification number, and hours of operation (including loading and transportation), and copies of delivery tickets, invoices or other documentation confirmatory of the foregoing.

.3 Other Expenditures. At the close of each Day on which such Extra Work is performed, Contractor shall submit to County and, if requested, to the Inspector of Record, an Extra Work report, on forms provided by County, that sets forth a list of other expenditures constituting Allowable Costs incurred in performance of the Extra Work on the Day that the Extra Work was performed, along with documentation verifying the amounts thereof in such detail as County may require.

.4 Subsequent Documentation. Documentation not available on any Day that a portion of the Extra Work is performed shall be submitted as soon as they are available but not later than twenty-one (21) Days after the earlier of the Day of delivery or incorporation of the particular item of Extra Work at the Site.

.5 Subcontractor Costs. Extra Work performed by Subcontractors on a time and materials basis shall be documented in the same manner as required of Contractor under this Paragraph 7.7.2. If Owner approves of a lump sum price for a Subcontractor's performance of Extra Work, then Contractor shall submit in lieu of the documentation otherwise required by this Subparagraph 7.7.2.5, such documentation as may be requested by Owner confirming the Extra Work performed on any given Day.

.6 Authentication. In addition to the foregoing, County may require that Contractor comply with other reasonable requirements pertaining to observation and verification of time and materials work and authentication of time and materials tickets and invoices by persons designated by County for such purpose.

.7 WAIVER BY CONTRACTOR.

THE FAILURE OF CONTRACTOR TO SUBMIT AUTHENTICATION OF COSTS IN THE MANNER REQUIRED BY THIS PARAGRAPH 7.7.2 SHALL, IF COUNTY ELECTS IN ITS REASONABLE DISCRETION TO TREAT IT AS

SUCH, CONSTITUTE A WAIVER BY CONTRACTOR OF ANY RIGHT TO A CONTRACT ADJUSTMENT FOR THE ALLOWABLE COSTS INCURRED FOR PERFORMANCE OF THAT PORTION OF THE EXTRA WORK FOR WHICH CONTRACTOR HAS FAILED TO PROVIDE SUCH AUTHENTICATION.

7.7.3 Allowable Costs. The term "Allowable Costs" (1) means the costs that are listed in this Paragraph 7.7.3 and (2) excludes costs that do not constitute Allowable Costs under Paragraph 7.7.4, below:

.1 Labor. Straight-time wages and, if specifically authorized by County in writing, overtime wages for employees employed at the Site, including wages for employees of Subcontractors performing engineering or fabrication detailing at locations other than at the Site. The use of a labor classification which would increase the Allowable Costs for Extra Work will not be permitted unless Contractor establishes the necessity for the use of such labor classification. Overtime wages and salaries shall only constitute an Allowable Cost to the extent permitted by the Contract Documents and only as specifically authorized by County in writing setting forth the amount of overtime anticipated, which amount shall be deemed the maximum amount of overtime reimbursable as an Allowable Cost. As part of the Allowable Costs permitted by this Subparagraph 7.7.3.1, Contractor shall be entitled to be reimbursed wages paid to a "time and materials clerk" employed by Contractor to track and document Compensable Changes that are authorized or permitted to be performed on a time and materials basis pursuant to Subparagraph 7.7.1.1 (4), above, provided that the time expended by such employee is verified by contemporaneously maintained time sheets maintained by such clerk showing the actual time spent tracking and documenting the performance of Compensable Changes separately from other tasks or functions performed by such clerk.

.2 Benefits. To the extent based on wages reimbursable under Subparagraph 7.7.3.1, above, net actual employer costs of payroll taxes (FICA, Medicare, SUTA, FUTA), insurance (as adjusted for experience modifiers, premium discounts, dividends, rebates, expense constants, assigned risk pool costs, net cost reductions due to policies with deductibles for self-insured losses, assigned risk rebates, or the like), health and welfare, pension, vacation, apprenticeship funds and benefits required by lawful collective bargaining agreements.

.3 Materials. Costs of materials used or consumed in the Work. Such costs for Extra Work shall be at a price that is competitive to the price charged for similar materials delivered within the general vicinity of the Site by other subcontractors, suppliers, manufacturers and distributors. The cost for any such item that is not new shall mean "fair market value" based on the estimated price a reasonable purchaser would pay to purchase the used material at the time it was used or consumed for the Work, which fair market value must be declared by Contractor and approved by County prior to such use or consumption.

.4 Taxes. Sales taxes on the costs of the materials described in Subparagraph 7.7.3.3, above.

.5 Equipment Rental. Rental charges for necessary machinery and equipment, exclusive of hand tools, whether rented from Contractor or others. No charge shall be allowed or credit required for items which have a replacement value of One Hundred Dollars (\$100) or less. The allowable rental rates shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, loading, transportation, repairs and maintenance of any kind, depreciation, storage, insurance and all incidentals. If equipment used for Extra Work is used intermittently and, when not in use, could be returned to its rental source at less expense to County than holding it at the Site, it shall be returned, unless Contractor elects to keep it at the Site at no expense to County. Under no circumstances shall the aggregate rentals chargeable for any item of equipment exceed the following percentages of the fair market value of the item at the time of its first use for the Work, which fair market value must be declared by Contractor and approved by County prior to the first use of such item in or for the Work: (1) if the item is owned by the Contractor or any company affiliated with Contractor, the aggregate rentals shall not exceed 75% of such fair market value; and (2) if the item is not owned by the Contractor or any company affiliated with Contractor, the aggregate rentals shall not exceed 100% of such fair market value. All equipment shall be acceptable to County, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment, and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer. The cost of major repairs or overhauls of rented equipment or machinery shall be deemed a cost of business of the lessor of such equipment or machinery and shall not be reimbursable as an Allowable Cost.

.6 Subcontractors. Payments made by Contractor to Subcontractors; provided, however, that: (1) such payments are not otherwise precluded from reimbursement by the terms of the Contract Documents; (2) such payments are for Work performed in accordance with the requirements of the Contract Documents; (3) such payments

are for amounts properly due and owing by Contractor under the terms of the governing contract between Contractor and such Subcontractor; and (4) in the case of payments for extra work performed by a Subcontractor pursuant to a change order executed between Contractor and a Subcontractor the change order was executed under circumstances in which the Subcontractor was entitled under the terms of its contract with Contractor to receive the amount of additional compensation agreed to in the change order.

.7 Royalties, Permits. Costs of royalties and permits.

.8 Bonds. Costs of bonds required to be furnished by Contractor under the terms of the Contract Documents; provided, however, that such additional costs chargeable for Extra Work or credited for Deleted Work shall not exceed two percent (2%) of the costs described in Subparagraphs 7.7.3.1 through 7.7.3.7, above.

7.7.4 Costs Not Allowed. Allowable Costs shall not include any of the costs associated with any of the following (whether incurred by Contractor or a Subcontractor):

.1 superintendent(s);

.2 assistant superintendent(s);

.3 project engineer(s);

.4 project manager(s);

.5 scheduler(s);

.6 estimator(s);

.7 drafting or detailing (except as otherwise permitted by Paragraph 7.7.3.1, above)

.8 vehicles not dedicated solely to the performance of the Work;

.9 small tools with a replacement value not exceeding One Hundred Dollars (\$100);

.10 office expenses, including staff, materials and supplies;

.11 on-Site and off-Site trailer and storage rental and expenses;

.12 Site fencing not added solely due to the performance of Extra Work;

.13 utilities, including gas, electric, sewer, water, telephone, telefax and copier equipment;

.14 computer and data-processing personnel, equipment and software;

.15 federal, state or local business, income and franchise taxes;

.16 insurance (including, without limitation, general liability, automobile and worker's compensation);

.17 without limitation to Contractor's right to liquidated damages under Section 4.4 of the Construction Contract, Losses, of any kind, incurred by Contractor or a Subcontractor, of any Tier, that arise from or relate to Delay (including Excusable Delay, Compensable Delay or Unexcused Delay) or acceleration to overcome the effects of such Delay; and

.18 costs and expenses of any kind or item not specifically and expressly included in Paragraph 7.7.3, above.

7.7.5 Allowable Markups. Allowable Markups consist of the percentages set forth provided for by this Paragraph 7.7.5. Allowable Markups are deemed to cover, without limitation, the following: (1) direct and indirect overhead (including, without limitation, consumables, small tools and cleanup) and profit of the Contractor; (2) direct and indirect overhead (including, without limitation, consumables, small tools and cleanup) and profit of the Subcontractors, of every Tier; and (3) all costs that are not reimbursable to Contractor under Paragraph 7.7.4, above. Subject to the exclusions and limitations set forth in Paragraph 7.7.7, below, or elsewhere in the Contract Documents, Allowable Markups include and are limited to the following:

.1 Self-Performed Work

(1) **Compensable Change.** With respect to all or that portion of a Compensable Change involving Self-Performed Work, the Allowable Markup to Contractor shall be not more than five percent (5%), which percentage shall for purposes of calculating the Contract Adjustment be multiplied times the Allowable Costs incurred by Contractor in the performance thereof, including, without limitation, Allowable Costs for materials or equipment purchased by Contractor from a first-Tier Subcontractor that is not an Installation Subcontractor.

(2) **Deleted Work.** With respect to all or that portion of Deleted Work involving Self-Performed Work, County shall be entitled to a credit equal to five percent (5%) of the amount of the credit for the savings to Contractor for the Self-Performed Work as calculated pursuant to Subparagraph 7.7.1.1 (4), (b), above.

.2 Installation Subcontractors (First-Tier)

(1) **Compensable Change.** With respect to all or that portion of a Compensable Change that is performed by a first-Tier Installation Subcontractor, the Allowable Markups to the first-Tier Installation Subcontractor and the Contractor shall be as follows:

(a) The Allowable Markup to the first-Tier Installation Subcontractor shall be not more than fifteen percent (15%), which percentage shall for purposes of calculating the Contract Adjustment be multiplied times the Allowable Costs incurred by such first-Tier Installation Subcontractor in the performance of such Compensable Change.

(b) The Allowable Markup to Contractor shall be five percent (5%), which percentage shall for purposes of calculating the Contract Adjustment be multiplied times the sum of (i) the Allowable Costs incurred by such first-Tier Subcontractor in the performance of such Compensable Change and (ii) the amount which results when the Allowable Markups thereon that are permitted pursuant to preceding Clause (a) of this Subparagraph 7.7.5.2 (1) are multiplied times such Allowable Costs.

(2) **Deleted Work.** With respect to all or that portion of Deleted Work that was to have been performed by a first-Tier Installation Subcontractor, the Contract Price shall be reduced as provided in Subparagraph 7.7.1.1 (4), (b), above. In addition, a credit shall be due from Contractor of five percent (5%) of the amount of the total credit due pursuant to Subparagraph 7.7.1.1 (4), (b), above.

.3 Installation Subcontractors (Second-Tier)

(1) **Compensable Change.** With respect to all or that portion of a Compensable Change that is performed by a second-Tier Installation Subcontractor, the Allowable Markups to such second-Tier Installation Subcontractor, to the first-Tier Installation Subcontractor that is above and in the same vertical contractual line of Tiers with such second-Tier Installation Subcontractor and to the Contractor, shall be as follows:

(a) The Allowable Markup to the second-Tier Installation Subcontractor shall be not more than five percent (5%), which percentage shall for purposes of calculating the Contract Adjustment be multiplied times the Allowable Costs incurred by such second-Tier Installation Subcontractor in the performance of such Compensable Change.

(b) The Allowable Markup to the first-Tier Installation Subcontractor that is above and in the same vertical contractual line of Tiers with such second-Tier Installation Subcontractor shall be not more than fifteen percent (15%), which percentage shall for purposes of calculating the Contract Adjustment be multiplied times

the sum of (i) the Allowable Costs incurred by such second-Tier Installation Subcontractor in the performance of such Compensable Change and (ii) the amount which results when the Allowable Markups thereon pursuant to preceding Clause (a) of this Subparagraph 7.7.5.3 (1) are multiplied times such Allowable Costs.

(c) The Allowable Markup to Contractor shall be five percent (5%), which percentage shall for purposes of calculating the Contract Adjustment be multiplied times the sum of (i) the Allowable Costs incurred by the second-Tier Installation Subcontractor in the performance of such Compensable Change and (ii) the amounts which result when the Allowable Markups thereon that are permitted pursuant to Clauses (a) and (b) of this Subparagraph 7.7.5.3 (1) are multiplied times such Allowable Costs.

(2) **Deleted Work.** With respect to all or that portion of Deleted Work that was to have been performed by a second-Tier Installation Subcontractor, the Contract Price shall be reduced as provided in Subparagraph 7.7.1.1 (4), (b), above. In addition, a credit shall be due from Contractor of five percent (5%) of the amount of the total credit due pursuant to Subparagraph 7.7.1.1 (4), (b), above.

.4 Other Subcontractors.

(1) **Compensable Changes:** With respect to any other Subcontractor, of any Tier, performing all or a portion of a Compensable Change who is not an Installation Subcontractor or who is an Installation Subcontractor below the second-Tier, the following shall apply:

(a) No markup shall be allowed to such other Subcontractor.

(b) The Subcontractor that is positioned in the Tier immediately above such other Subcontractor shall be entitled to an Allowable Markup of not more than five percent (5%) upon the Allowable Costs incurred by such other Subcontractor in the performance thereof.

(c) No other Allowable Markup by any Subcontractor of any Tier above such other Subcontractor shall be permitted.

(d) Contractor shall be entitled to an Allowable Markup of five percent (5%) of the sum of (i) the Allowable Costs of such other Subcontractor incurred in the performance of such Compensable Change and (ii) the amount which results when the Allowable Markup permitted by Clause (b) of this Subparagraph 7.7.5.4 (1) is multiplied times such Allowable Costs.

(2) **Deleted Work.** With respect to all or that portion of Deleted Work that was to have been performed by such other Subcontractor who is not an Installation Subcontractor or who is an Installation Subcontractor below the second-Tier, the Contract Price shall be reduced as provided in Subparagraph 7.7.1.1 (4), (b), above. In addition, a credit shall be due from Contractor of five percent (5%) of the amount of the total credit due pursuant to Subparagraph 7.7.1.1 (4), (b), above.

7.7.6 **Review of Markups.** It is Contractor's responsibility to review information submitted by Subcontractors to ensure that all markups comply with the requirements of the Contract Documents. Payment by the County of markups that exceed Allowable Markups shall not be considered as a waiver by County of the right to require repayment by Contractor of any markup charged that is in excess of Allowable Markups and such excess amounts shall be promptly paid by Contractor to County.

7.7.7 **Exclusions and Limitations.** Allowable Markups are not permitted:

- .1 on agreed unit prices;
- .2 on materials, products or equipment furnished by County;
- .3 on liquidated damages payable to Contractor pursuant to Section 4.4 of the Construction Contract for Compensable Delay;

.4 to a Subcontractor who contracts to perform a Compensable Change that is in fact wholly performed by another Subcontractor (for purposes of this Paragraph 7.7.7, "wholly performed" means that all of the Compensable Change, other than supervision or minor labor or materials, are furnished by such other Subcontractor); or

.5 on any cost or compensation with respect to which the Contract Documents state that there shall be "no Allowable Markup", "no markup for overhead and profit" or words of similar meaning.

7.7.8 Net Calculations. If any one Change or collection of Changes in the same or related portions of the Work, or in multiple portions of Work covered by a single bulletin or instruction by County, involve both Compensable Change and Deleted Work, and if the added Allowable Costs resulting from the Compensable Change exceed the reduction calculated in accordance with Subparagraph 7.7.1.1 (4) (b), above, (excluding any Allowable Markup to the Contractor) then the calculation of Allowable Markups to Contractor shall be based on and limited to the resulting net increase in the Allowable Costs.

7.7.9 Unit Prices. Unless otherwise stated in the Contract Documents, unit prices stated in the Contract Documents or subsequently agreed upon by County and Contractor shall be deemed to include and encompass all costs of performance, overhead and profit, including, without limitation, all Allowable Costs and Allowable Markups. If the unit price stated in the Contract Documents is based on an estimated quantity established by County in the Construction Contract and the actual quantity of such unit-priced item varies by more than 25% above or below the estimated quantity, an equitable adjustment in the Contract Price shall be made upon demand of either County or Contractor. Such equitable adjustment shall be based solely upon any increase or decrease in Allowable Costs (without any Allowable Markups), due solely to the variation above 125% or below 75% of the estimated quantity.

7.7.10 Discounts. For purposes of determining Allowable Costs of a Compensable Change, all trade discounts, rebates, refunds, and returns from the sale of surplus materials and equipment shall accrue and be credited to County, and Contractor shall take all necessary steps to ensure that such discounts, rebates, refunds, and returns are secured.

7.7.11 Prompt Pricing. It is fundamental to the County's objective of controlling costs that performance of Compensable Changes on a time and materials basis of compensation and without a not-to-exceed price be curtailed. Contractor recognizes that prompt pricing by Contractor is critical to this objective. Accordingly, in addition to and without limitation on any of the County's other rights or remedies, including, without limitation, its right to enforce a waiver under Subparagraph 7.6.2.4, above, it is agreed that if Contractor fails to timely submit a complete Change Order Request in accordance with Paragraph 7.6.2, above, with respect to any circumstance, event or occurrence constituting a Compensable Change then: (1) any Delay to the performance of the Work associated with the performance, delayed performance or nonperformance of such Compensable Change shall be conclusively deemed to be an Unexcused Delay; and (2) the County shall have the option, exercised in its sole discretion, to unilaterally fix and determine the amount of the Contract Adjustment to the Contract Price for such Compensable Change based on the "estimating guide" method set forth in Subparagraph 7.7.1.1 (3), above, which determination shall be conclusively final and binding upon Contractor.

7.7.12 Final Payment. No Claim by Contractor for a Contract Adjustment shall be allowed if asserted after Final Payment.

7.7.13 Full Resolution. Except as otherwise stated in Paragraph 7.7.14, below, the signing of a Change Order by Contractor and the County shall be conclusively deemed to be a full resolution, settlement and accord and satisfaction with respect to any and all Loss and Delay, whether known or unknown at the time of execution of the Change Order, related to the subject matter of the Change Order, including, without limitation, all rights to recovery of costs, expenses or damages for delay, disruption, hindrance, interference, extended or extraordinary (direct and indirect) overhead, multiplicity of changes, loss of productivity, labor, wage or material cost escalations, inefficiency, legal expenses, consultant costs, interest, lost profits or revenue, bond and insurance costs, changes in taxes and other similar and related Losses. **ANY RIGHT OR CLAIM BY CONTRACTOR FOR ANY ADDITIONAL COMPENSATION OR EXTENSION OF TIME RELATING DIRECTLY OR INDIRECTLY TO A COMPENSABLE CHANGE DESCRIBED IN A FULLY EXECUTED CHANGE ORDER SHALL BE CONCLUSIVELY DEEMED WAIVED BY CONTRACTOR, EVEN IF THE CIRCUMSTANCES GIVING RISE TO SUCH ADDITIONAL COMPENSATION OR EXTENSION OF TIME WERE NOT SUSPECTED BY OR KNOWN TO THE CONTRACTOR AT THE TIME OF EXECUTION OF THE**

CONSTRUCTION CHANGE DIRECTIVE AND IF SUSPECTED OR KNOWN WOULD HAVE BEEN CONSIDERED BY CONTRACTOR TO HAVE BEEN MATERIAL TO CONTRACTOR'S AGREEMENT TO THE CONTRACT ADJUSTMENT SET FORTH IN THE CHANGE ORDER.

7.7.14 Reserved Rights. Intentionally omitted.

7.7.15 No "Total Cost" Calculations. Contractor represents and warrants that it has the ability to generate and maintain complete and accurate cost accounting records that, if required, will reflect the actual costs of the Work incurred or avoided for multiple Compensable Changes and, on an event-by-event basis, the effect of multiple and concurrently occurring or caused Compensable Delays on the progress of the Work. Accordingly, Contractor agrees that all Change Order Requests and Claims shall be itemized in a manner that, with reasonable mathematical certainty and without reliance upon probabilities or inferences, segregates on a discrete, event-by-event basis the direct, actual Allowable Costs associated with each individual Compensable Change or Compensable Delay. Unless otherwise agreed to by County in writing in the exercise of its sole discretion, Change Order Requests and Claims shall not be based, in whole or in part, upon any methodology (such as "total cost" or "modified total cost" methodologies) that purports to establish Contractor's entitlement to additional compensation inferentially based, solely or principally, on the difference between Contractor's total costs for the Work or a portion of the Work and its original Bid.

7.7.16 Multiple Changes. The County reserves the absolute right to make whatever Changes, including, without limitation, Compensable Changes or Deleted Work, that it determines, in its sole discretion, are necessary or otherwise desirable. Under no circumstances shall the individual or cumulative number, value or scope of such Changes, or their individual and cumulative impact on the Work, become a basis for Contractor to assert any claim for breach of contract, abandonment, rescission, termination, cardinal change or reformation of the Construction Contract, nor shall such circumstances be the basis for Contractor, or any of the Subcontractors, of any Tier, to assert a right of recovery of any Loss if such right is not permitted by, or is in excess of that allowed under, the Contract Documents.

7.7.17 Continuous Performance. Subject to Contractor's rights under Section 15.4, below, no dispute or disagreement with respect to any Changes or Delay, including, without limitation, disputes over Contractor's right to or the terms of a Contract Adjustment, shall relieve or excuse Contractor from the obligation to proceed with and maintain continuous, expeditious and uninterrupted performance of the Work, including performance of any disputed Changes.

**ARTICLE 8
CONTRACT TIME**

8.1 COMMENCEMENT AND COMPLETION

8.1.1 Date of Commencement. The Date of Commencement shall not be postponed by the failure of Contractor or of persons or entities for whom Contractor is responsible to perform an obligation. Contractor shall not knowingly, except by agreement or instruction of the County in writing, commence operations on the Site or elsewhere prior to receipt of a Notice to Proceed. Contractor shall not commence any Work at the Site prior to its obtaining the insurance required by Article 11, below, and the Performance Bond and Payment Bond required by Article 12, below, and the Date of Commencement of the Work shall not be changed by the effective date of such insurance or bonds.

8.1.2 Substantial, Final Completion. Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion and Final Completion within the Contract Time, as adjusted for extensions of time duly permitted, authorized and noticed pursuant to Section 8.2, below.

8.1.3 Adjustments to Contract Time. Subject to the limitations set forth in this Article 8 and elsewhere in the Contract Documents, the Contract Time shall be extended for Compensable Delays and Excusable Delays and shall, where appropriate, be shortened for Deleted Work.

8.1.4 Early Completion. Nothing stated in these General Conditions or elsewhere in the Contract Documents shall be interpreted as creating any contractual right, express or implied, on the part of Contractor to finish the Work earlier than the Contract Time. Contractor has included in its Contract Price the costs of all Contractor's and its Subcontractors' direct and indirect overhead, including but not limited to all staff, temporary facilities, temporary utilities and home office overhead for the entire duration of the Contract Time. These costs have been included in the Contract Price notwithstanding Contractor's anticipation of possibly completing the Work in fewer Days than established

by the Contract Time. Under no circumstances (including, without limitation, circumstances in which the County has approved in writing of Contractor completing early) shall the County be liable to Contractor for any Losses, of any kind, due to the inability of Contractor to complete the Work earlier than the Contract Time, regardless of the cause, including, without limitation, Delays due to acts or omissions (intentional or negligent) of the County, Inspectors of Record, County Consultants, Separate Contractors or others. If the Contractor anticipates completing early, it must obtain in advance County's approval in writing of such early completion. Approval by County of such early completion may be granted or withheld in the County's sole and absolute discretion.

8.2 DELAYS AND EXTENSIONS OF TIME

8.2.1 Adjustments to Contract Time

.1 Extensions. Provided that Contractor has complied with the provisions of this Section 8.2 (including, without limitation, the requirements pertaining to timely delivery of a Notice of Delay and Request for Extension), if, as a result of Excusable Delay or Compensable Delay to the actual, as-built critical path of activities leading to achievement of Substantial Completion, Contractor is unable to achieve Substantial Completion within the Contract Time for Substantial Completion, then the Contract Time for Substantial Completion and Final Completion shall be extended, either by Change Order or Unilateral Change Order, for the length of the proven, resulting Delay to Contractor's ability to so complete the Work. The Contract Time shall not be adjusted for Unexcused Delays.

.2 Shortening. Contractor shall within ten (10) Days after receiving notice of Deleted Work prepare and deliver to County a Time Impact Analysis of the impact of the Deleted Work upon the critical path to determine if the Contract Time should be shortened thereby and if so the duration of the shortening. If the County and Contractor are unable to agree upon the duration of the shortening, then County shall make a Good Faith Determination of the reasonable amount of time that the Contract Time shall be shortened on account of such Deleted Work.

.3 Prescribed Calculations.

(1) Work Day Lost Calculations. Contractor may claim an Excusable Delay or a Compensable Delay for a full Day only if all Work on a critical path activity is stopped for more than six (6) hours of a normal eight (8) hour Work Day and for a half-Day only if all Work on a critical path activity is stopped for three (3) to six (6) hours of such a normal Work Day. No Excusable Delay or Compensable Delay may be claimed if all Work on a critical path activity is stopped for less than three (3) hours of such a normal work Day. Similarly, where Deleted Work results in the projected avoidance of the need to perform more than six (6), or between three (3) and six (6) hours of all Work on a critical path activity on such a normal work day, the Contract Time shall be contracted by a full Day or half Day, respectively.

(2) Dry Out Time Calculations. Contract Adjustments to the Contract Time that are based upon unusual precipitation that is an Act of God as defined in Paragraph 1.1.2, above, shall include, in addition to the number of Days of Excusable Delay to which Contractor is entitled due to a cessation of Work that occurs at the Site while the unusual precipitation is occurring, an additional extension for the Delay to the critical path of activities affecting Substantial Completion that is the result of Contractor being unable, after cessation of the unusual precipitation at the Site, to proceed with performance of Work due to wet or muddy conditions at the Site (hereinafter referred to as "dry out" time); provided, however, that the amount of dry out time for which Contractor is entitled to an extension of time in any given calendar month shall not exceed the number of Days that is the product derived by multiplying (a) the number of Days of Excusable Delay to which Contractor is entitled due to a cessation of Work that occurs at the Site while such unusual precipitation is occurring, by (b) a fraction, the (i) numerator of which is the number of Days of Excusable Delay due to measurable unusual precipitation occurring at the Site during such calendar month that constitutes an Act of God as defined in Paragraph 1.1.2, above, and (ii) the denominator of which is the total number of Days of measurable precipitation occurring at the Site during said calendar month (including both the number of Days comprising the normal, 10-year monthly average of measurable precipitation recorded by NOAA and the excess, or unusual precipitation that constitutes an Act of God as defined in Paragraph 1.1.2, above).

8.2.2 Notice of Delay.

.1 Submission. Contractor shall submit written Notice of Delay to County if any instruction, request, drawing, specification, action, condition, omission, default or other circumstance occurs that constitutes an

Excusable Delay or Compensable Delay or other matter that may involve or require a Contract Adjustment extending the Contract Time. Such notice shall be provided prior to performance of the Work affected or involved and no later than seven (7) Days after the Discovery Date of such circumstance.

.2 Form. Notices of Delay shall be provided using forms furnished by County or, if requested by County, using forms furnished by Contractor that are approved by County. Failure by County to request or approve a particular form shall not relieve Contractor of its obligation to provide Notice of Delay in a written form that complies with the requirements of this Paragraph 8.2.2.

.3 Content. Each Notice of Delay in order to be considered complete shall include:

(1) a general statement of the circumstances giving rise to the Notice of Delay (including, without limitation, identification of any related Construction Change Directive);

(2) a Reasonable Order of Magnitude Estimate by Contractor of any related Contract Adjustments extending the Contract Time; and

(3) if such circumstances involve a right to a Contract Adjustment to the Contract Price for Compensable Change that has not been waived by Contractor, Contractor shall include, if not previously provided, a complete and timely Notice of Change.

.4 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO PROVIDE A COMPLETE AND TIMELY NOTICE OF DELAY UNDER CIRCUMSTANCES WHERE A NOTICE OF DELAY INVOLVING A DELAY IS REQUIRED BY THIS PARAGRAPH 8.2.2 SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO A CONTRACT ADJUSTMENT ON ACCOUNT OF SUCH CIRCUMSTANCES AND A WAIVER OF ANY RIGHT TO FURTHER RECOURSE OR RECOVERY BY REASON OF OR RELATED TO SUCH DELAY.

.5 No County Notice. Failure by Contractor to submit a timely or proper Notice of Delay under circumstances in which a Notice of Delay is required shall in no way affect County's right to a Contract Adjustment shortening the Contract Time on account of such circumstances.

8.2.3 Request for Extension.

.1 Submission. With respect to any matter that may involve or require an adjustment extending the Contract Time, Contractor shall, within fourteen (14) Days after receipt by County of a Notice of Delay pursuant to Paragraph 8.2.2, above, submit to County a written Request for Extension.

.2 Form. Requests for Extension shall be provided using forms furnished by County or, if requested by County, using forms furnished by Contractor that are approved by County. Failure by County to request or approve a particular form shall not relieve Contractor of its obligation to provide Requests for Extension in a written form that complies with the requirements of this Paragraph 8.2.3.

.3 Content. Each Request for Extension in order to be considered complete shall include:

(1) a detailed description of the circumstances giving rise to the request for Contract Adjustment to the Contract Time and a Time Impact Analysis (a Request for Extension that seeks an extension for more than one Delay shall be supported by a separate Time Impact Analysis for each separate Delay); and

(2) if such circumstances involve a right to a Contract Adjustment of the Contract Price on account of Compensable Change that has not been waived by Contractor, Contractor shall include, if not previously provided, a complete and timely Change Order Request.

.4 WAIVER BY CONTRACTOR.

FAILURE BY CONTRACTOR TO PROVIDE A COMPLETE AND TIMELY REQUEST FOR EXTENSION UNDER CIRCUMSTANCES WHERE A REQUEST FOR EXTENSION INVOLVING A DELAY IS REQUIRED BY THIS PARAGRAPH 8.2.3 SHALL, IN ACCORDANCE WITH THE PROVISIONS OF SECTION 4.6 OF THE GENERAL CONDITIONS, CONSTITUTE A WAIVER BY CONTRACTOR OF THE RIGHT TO A CONTRACT ADJUSTMENT ON ACCOUNT OF SUCH CIRCUMSTANCES AND A WAIVER OF ANY RIGHT TO FURTHER RECOURSE OR RECOVERY BY REASON OF OR RELATED TO SUCH DELAY.

.5 Adjustments Shortening Time. Failure by Contractor to submit a timely or proper Request for Extension under circumstances in which a Request for Extension is required shall in no way affect County's right to a Contract Adjustment shortening the Contract Time on account of such circumstances.

8.2.4 Response by County. After receipt of a timely and complete Request for Extension, County shall investigate the facts concerning the cause and extent of such Delay and, depending on whether the Request for Extension is justified, will notify Contractor of its approval or disapproval of all or a portion of Contractor's request. Extensions of time approved by County shall apply only to that portion of the Work affected by the Delay, and shall not apply to other portions of Work not so affected.

8.2.5 Formal Notice of Essence. Contractor recognizes and acknowledges that timely submission of a formal Notice of Delay and a formal Request for Extension, whether or not the circumstances of a Delay may be known to County or available to County through other means, are not mere formalities but are of crucial importance to the ability of County to promptly identify, prioritize, evaluate and mitigate the potential effects of Delay. Any forms of informal notice, whether verbal or written (including, without limitation, statements at regular job meetings or entries in monthly reports, daily logs, job meeting minutes, updated Construction Schedules or look-ahead schedules), that do not strictly comply with the formal requirements of Paragraph 8.2.2, above, and Paragraph 8.2.3, above, shall accordingly be deemed insufficient to satisfy the notice requirements of this Article 8.

8.2.6 Compensation for Delay.

.1 Compensable Delay. Contract Adjustments to the Contract Price for a Compensable Delay that involve an extension of the Contract Time shall be based, without duplication to any other Contract Adjustments to the Contract Price, on the terms of Section 4.4 of the Construction Contract. Contractor agrees to accept such right of Contract Adjustment in lieu of any other right that may exist under Applicable Laws for recovery of Losses due to Compensable Delay, whether incurred by Contractor or its Subcontractors, of any Tier.

.2 Deleted Work. The Contract Time and Contract Price shall be reduced by Contract Adjustment for Deleted Work (including, without limitation, Deleted Work associated with a termination by County of a portion of the Construction Contract or a deletion of portion of Work for the convenience of the County or due to an Event of Contractor Default) that results in a shortening of the Contract Time.

(1) Contract Time. The Contract Adjustment shortening the Contract Time for Substantial Completion shall be the number of Days that Contractor at the time of contracting would have reasonably expected to expend in performance of the Deleted Work and that, based on the Contractor's original Construction Schedule prepared on or about the time of contracting, were reasonably expected by Contractor to be critical to Substantial Completion of the Work within the Contract Time for Substantial Completion.

(2) Contract Price. The Contract Adjustment reducing the Contract Price shall be the product of (1) the number of Days that the Contract Time for Substantial Completion is shortened pursuant to preceding Clause (1) of this Subparagraph 8.2.6.2 multiplied times (2) the amount of liquidated damages set forth in Paragraph 4.4 of the Construction Contract, without any additional credit to County for Allowable Markups.

8.2.7 Acceleration of the Work.

.1 Due to Unexcused Delay. If County makes a Good Faith Determination based on County's observations of progress in performance of the Work by Contractor that Contractor will not achieve Substantial Completion of the Work within the Contract Time as adjusted pursuant to Paragraph 8.2.1, above, then Contractor shall, following receipt of a written request by County to accelerate, immediately respond in writing setting forth a detailed plan for accelerating the Work. All measures necessary, including working overtime, additional shifts, Saturdays,

Sundays and holidays, to accelerate performance to ensure that the Work is performed within the Contract Time shall be taken by Contractor and the cost thereof shall be paid for by Contractor at Contractor's Own Expense. County may also take all other necessary measures to ensure no further Delays affect achievement of Substantial Completion and Final Completion of the Work within the Contract Time and the Contractor shall reimburse County, or County may withhold from payment due to Contractor, for Losses incurred by County in taking such measures. If Contractor is not the cause of the impacts or delays necessitating the acceleration measures described in this Section 8.2.7.1, Contractor will be entitled to a Contract Adjustment for all Losses associated with such measures.

.2 Due to Excusable Delay. Contractor shall have the right, exercised in its sole discretion, to accelerate performance of the Work to overcome time lost due to Excusable Delay. Such acceleration, if performed other than at the written direction of County, shall be deemed a voluntary acceleration and the cost of such accelerated performance shall be paid for by Contractor at Contractor's Own Expense. If County directs in writing that the Work be accelerated to overcome an Excusable Delay that is not concurrent with an Unexcused Delay, then Contractor shall be entitled to a Contract Adjustment to the Contract Price for such acceleration on and subject to the same terms as provided for in Subparagraph 8.2.7.3, below, in the case of an acceleration to overcome a Compensable Delay.

.3 Due to Compensable Delay. County shall have the right, exercised in its sole and absolute discretion, in lieu of granting a Contract Adjustment to the Contract Time for Compensable Delay, to direct in writing the acceleration of the Work by Contractor in order to recapture time lost due to such Compensable Delay. County and Contractor shall endeavor prior to commencement of such acceleration to mutually agree upon the amount of compensation to be paid therefor. County shall have the right, in the absence of such an agreement, to direct in writing that Contractor accelerate. Contractor shall comply with such directive. Contractor's right to a Contract Adjustment to the Contract Price on account of such acceleration shall be limited to (1) the premium time portion of any overtime paid for labor provided by Contractor or any Subcontractor, plus (2) additional supervision costs for additional shifts of supervision provided at the Site by Contractor only (not by Subcontractors), plus (3) Allowable Markup thereon as provided in Paragraph 7.7.5, above, and any other costs incurred by Contractor because of County's direction to accelerate. Except as directed by County in the manner stated in this Subparagraph 8.2.7.3, no statements, conduct or actions by County will be construed as creating an obligation on the part of County to agree to a Contract Adjustment to the Contract Price on account of any cost of overtime or other costs associated with an acceleration of the Work to recapture time lost due to Compensable Delay.

8.2.8 Concurrent Delays. For purposes of the calculations provided for in this Paragraph 8.2.8, the words "concurrent delay", "concurrently delay" or "occur concurrently" mean the portion of two or more Delays affecting the critical path to Substantial Completion that are overlapping or co-existent. Contractor's right to a Contract Adjustment of the Contract Time (pursuant to Subparagraphs 8.2.8.1, 8.2.8.2 and 8.2.8.3, below) and Contract Price (pursuant to Subparagraphs 8.2.8.4, 8.2.8.5 and 8.2.8.6, below) shall, in the case of concurrent delays, be calculated in accordance with the following:

.1 If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of Days from the commencement of the first Delay to the cessation of the Delay which ends last.

.2 If an Unexcused Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of Days, if any, by which such Excusable Delay or Compensable Delay exceeds the number of Days of such Unexcused Delay.

.3 If an Unexcused Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum extension of the Contract Time shall be the number of Days, if any, by which such Excusable Delay and Compensable Delay, as determined pursuant to Subparagraph 8.2.8.1, above, exceeds the number of Days of such Unexcused Delay.

.4 If an Unexcused Delay occurs concurrently with a Compensable Delay, the maximum period of time for which Contractor shall be entitled to a Contract Adjustment to the Contract Price in accordance with Section 4.4 of the Construction Contract shall be the number of Days, if any, by which such Compensable Delay exceeds the number of Days of such Unexcused Delay.

.5 If a Compensable Delay occurs concurrently with an Excusable Delay, the maximum period of time for which Contractor shall be entitled to a Contract Adjustment to the Contract Price in accordance with Section 4.4 of the Construction Contract shall be the number of Days, if any, by which such Compensable Delay exceeds the number of Days of such Excusable Delay.

.6 If an Unexcused Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum period of time for which Contractor shall be entitled to a Contract Adjustment to the Contract Price in accordance with Section 4.4 of the Construction Contract shall be the number of Days, if any, by which such Compensable Delay exceeds the number of Days of such Unexcused Delay.

8.2.9 **Delay Claims.** Claims by Contractor relating to disputed Contract Adjustments due to Delay shall be made in accordance with applicable provisions of Section 4.3, above.

8.2.10 **Exercise of County Rights.** Notwithstanding any other provision of the Contract Documents to the contrary, County's exercise in accordance with the Contract Documents of any of its rights or remedies permitted by Applicable Laws or the Contract Documents in response to a failure by Contractor or any Subcontractor to comply with the Contract Documents shall not, under any circumstances, entitle Contractor to a Contract Adjustment.

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 PAYMENT BY COUNTY

9.1.1 **Time for Payment.** County shall make payment of undisputed sums due to the Contractor upon Applications for Payment requesting Progress Payment not later than thirty (30) Days after receipt of an Application for Payment requesting Progress Payment that has been properly and timely prepared and submitted by Contractor, and approved by County, in accordance with the requirements of the Contract Documents.

9.1.2 **Not Acceptance.** No approval, inspection or use of, or payment for, the Work by County or by any person or entity acting on County's behalf shall constitute acceptance of Work that is not in accordance with the Contract Documents or a waiver of any of County's rights under the Contract Documents.

9.1.3 **Interest.** If County fails to make payment of an undisputed sum due as a Progress Payment to the Contractor as required by this Article 9, County shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of California Code of Civil Procedure §685.010. The number of Days available to the County to make payment without incurring such interest shall be reduced by the number of Days by which the County exceeds the seven (7) Day response time applicable to the County set forth in Section 9.5, below. The foregoing is the County's sole obligation with respect to payment of interest earned or accrued on an amount claimed due prior to the commencement by Contractor of legal proceedings for recovery of such amount.

9.1.4 **Disputed Payments.** Subject to Contractor's rights under Section 9.8, below, no good faith dispute or disagreement between County and Contractor with respect to the amount of any payment claimed due by Contractor shall relieve or excuse Contractor from the obligation to proceed with and maintain continuous, expeditious and uninterrupted performance of the Work.

9.2 APPLICATIONS FOR PAYMENTS

9.2.1 **Submission by Contractor.** Applications for Payment requesting Progress Payment shall be properly prepared and submitted by Contractor to County once a month on the twenty-fifth (25th) Day of the month. If the twenty-fifth (25th) Day of the month is a weekend or Holiday, the Application for Payment shall be submitted on the next working day.

9.2.2 **Period of Application.** The period covered by each such Application for Payment requesting Progress Payment shall be not more than thirty (30) Days ending on the twenty-fifth (25th) Day of the month in which such Application for Payment is submitted.

9.2.3 Schedule of Values. Each Application for Payment shall be accompanied by a Schedule of Values prepared and submitted in accordance with the requirements of the Contract Documents, including, without limitation, the provisions of Section 9.3, below.

9.2.4 Changes in Work. Applications for Payment may include requests for payment on account of Compensable Changes in the Work which have been properly authorized by Change Order or Unilateral Change Order.

9.2.5 Progress Payments. Applications for Payment requesting Progress Payments shall be based on amounts calculated in accordance with the provisions of Section 9.4, below.

9.2.6 Percentage Completion. Applications for Payment requesting Progress Payments shall indicate the Contractor's estimate of the percentage of completion of each line item listed in the Schedule of Values as of the end of the period covered by the Application for Payment.

9.2.7 Projected Work. Unless approved by County in writing in advance of an Application for Payment being submitted, which approval may be granted or denied in the sole and absolute discretion of County, Applications for Payment shall only include amounts for Work performed to the twenty-fifth (25th) Day of the month in which the Application for Payment was submitted and shall not include request for payment of amounts for Work projected to be performed, stored or delivered beyond that date.

9.2.8 Disagreements. In the event of a disagreement between County and Contractor over the accuracy or reasonableness of the Contractor's statement of percentage of progress achieved that is contained in the Application for Payment, the County shall make a Good Faith Determination of the percentage, which percentage shall then be inserted by Contractor in the Application for Payment and the Application for Payment submitted, or resubmitted, incorporating such revision.

9.2.9 Substantial Completion. For the sole purpose of the percentage calculation set forth in Paragraph 9.2.6, above, and for no other purpose, the Work shall be deemed one hundred percent complete upon Substantial Completion and the amount released to Contractor shall, subject to County's right to withhold pursuant to Section 9.6, below, be a sum sufficient to increase the total of Progress Payments to Contractor to ninety-five percent (95%) of the Contract Price.

9.2.10 Certification by Contractor. Each Application for Payment that is submitted by Contractor shall be signed by Contractor with a certification by Contractor to County that: (1) the data comprising the Application for Payment is accurate and the Work has progressed to the point indicated; (2) to the best of Contractor's knowledge, information and belief, the Work is in accordance with the Contract Documents; (3) Contractor is entitled to payment in the amount certified; and (4) all sums previously applied for by Contractor on account of the Work performed by the Subcontractors and that have been paid by County have been paid to the Subcontractors performing such Work, without any retention, withholding or back charge by Contractor.

9.2.11 Stored Materials. County may, in the exercise of its sole and absolute discretion, approve or disapprove for inclusion in Contractor's Application for Payment the cost of materials to be incorporated, but not yet incorporated, in the Work and delivered and suitably stored either at the Site or at some other appropriate location acceptable to the County. As part of any request for such approval, Contractor shall furnish evidence satisfactory to County: (1) of the cost of such materials; (2) that such materials are under the exclusive control of Contractor, or if not, that title to the materials is in the County, free of any lien or encumbrance; and (3) with respect to materials stored off-Site, that the materials are safely and suitably stored in a bonded warehouse with appropriate insurance coverage satisfactory to County. No payment or approval by County pursuant to this Paragraph 9.2.11 shall (a) be construed as an inspection or acceptance of the materials; (b) relieve Contractor of its continuing and sole responsibility for the care and protection of, and sole responsibility for any Loss to, such materials, from any cause whatsoever; or (c) operate as a waiver of rights by County.

9.2.12 Title. Contractor warrants that title to all the Work covered by an Application for Payment will pass to County no later than the time of payment. Contractor further warrants that upon submittal of an Application for Payment all Work for which approval for payment has been previously issued by County shall, to the best of Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of

Contractor, the Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials or equipment for the Work.

9.3 SCHEDULE OF VALUES

9.3.1 **Initial Submission.** Within twenty-one (21) Days after issuance by County of the Notice of Intent to Award, Contractor shall submit to County a Schedule of Values, prepared in a form and incorporating a level of detail satisfactory to County, that allocates the Contract Price to various portions of the Work, including, without limitation, each portion of the Work to be performed by a Subcontractor, self-performed Work, discrete categories of direct (i.e., on-Site) overhead costs (sometimes referred to as "general conditions costs"), Contractor home office and indirect overhead and profit and amounts reserved for contingencies.

9.3.2 **Balanced Allocation.** The Schedule of Values shall be balanced, reflecting in each line item Contractor's estimated or actual cost commitments for the category of Work included in the line item and a proportionate share of Contractor's overhead and profit. Techniques, such as "front-end loading", designed to create an imbalanced cash flow are strictly prohibited.

9.3.3 **Line Estimates.** Line item values stated in the Schedule of Values that are based on Contractor's estimates, rather than actual subcontract prices, shall be identified as such and replaced with actual subcontract prices when they become available as the subcontracting process progresses.

9.3.4 **Updating.** The Schedule of Values shall be updated by Contractor each month as necessary to reflect the Contractor's actual progress in subcontracting the Work. An updated Schedule of Values shall be attached to each Application for Payment.

9.3.5 **Substantiation.** Contractor shall provide such data as County may reasonably require to substantiate that the Schedule of Values has been prepared in conformance with the requirements of the Contract Documents. Failure to provide such substantiation shall result in the Schedule of Values being deemed incomplete and unapproved by County for use by Contractor in submitting its Applications for Payment.

9.3.6 **Corrections.** If corrections are required in order to make the Schedule of Values comply with the requirements of the Contract Documents, such corrections shall be made as a condition of the Contractor's Application for Payment being considered properly prepared, submitted and complete.

9.3.7 **Changes to Work.** Costs involved in the performance of Work covered by Change Orders, Unilateral Change Orders or Construction Change Directives shall be, at the option of County, either separately scheduled or incorporated as adjustments to the respective trade lines of Work to which they apply. Except as otherwise expressly required by Article 7, above, the Schedule of Values shall not be utilized by Contractor as a basis for calculating Contract Adjustments.

9.3.8 **Applications for Payment.** The Schedule of Values prepared by Contractor in accordance with the requirements of the Contract Documents shall be used as a basis for County's review and approval or disapproval of Applications for Payment.

9.4 PROGRESS PAYMENT CONDITIONS

9.4.1 **Progress Payment Amount.** Subject to the other provisions of the Contract Documents, the amount of each Progress Payment requested in an Application for Payment shall be computed as follows:

.1 take that portion of the Contract Price properly allocable to Work (other than materials, products or equipment furnished by County) permanently incorporated at the Site as part of the Work, based on the product derived by multiplying (1) the percentage completion of each such portion of the Work times (2) the portion of the total Contract Price allocated to that portion of the Work in the Schedule of Values, less a retention of five percent (5%) thereof;

.2 add that portion of the Contract Price that is allocable to materials and equipment (other than materials, products or equipment furnished by County) approved by County pursuant to Paragraph 9.2.11, above, and suitably stored at the Site or at a location off-Site, less a retention of five percent (5%) thereof;

.3 subtract the aggregate of previous payments made by the County; and

.4 subtract amounts, if any, that County has determined will be withheld pursuant to an exercise of the County's right to withhold pursuant to Section 9.6, below.

9.4.2 Other Conditions and Documentation. Contractor shall submit its Applications for Payment requesting Progress Payments to County using such forms as required by County. Without limitation to any other conditions to payment set forth elsewhere in the Contract Documents, the following shall be conditions precedent to a proper submission, and to County's approval, of each Application for Payment:

.1 submission of a Schedule of Values that complies with Section 9.3, above;

.2 submission of Contractor's certification required by Paragraph 9.2.10, above;

.3 submission of: (1) forms of conditional releases of stop payment notice and bond rights upon progress payment, complying with California Civil Code §8132, for all Work performed during the time period covered by the current Application for Payment, signed by Contractor and the Subcontractors, of every Tier; and (2) forms of unconditional releases of stop payment notice and bond rights upon progress payment, complying with California Civil Code §8134, for all Work performed during the time period covered by the previous Application for Payment, signed by Contractor and the Subcontractors, of every Tier;

.4 compliance by Contractor with its obligation for daily maintenance of Record Drawings and Specifications as required by Paragraph 3.10.1, above;

.5 compliance by Contractor with its obligation for submission of daily reports as required by Paragraph 3.10.2, above;

.6 compliance by Contractor with its obligations for submission of scheduling information and updating of the Construction Schedule as required by Section 3.9, above, and other provisions of the Contract Documents pertaining to preparation or updating of schedules and scheduling information;

.7 proper payment of prevailing wages as defined in California Labor Code §1720, et seq.;

.8 timely submission of adequate and complete certified payroll records for any time period that Work was performed and for which payment is being requested;

.9 submission of certifications by Contractor and the Subcontractors as required by Applicable Laws certifying that all employee benefit contributions due and owing have been paid in full;

.10 submission of sales tax information as required by Paragraph 3.6.3, above; and

.11 compliance by Contractor with all of its other obligations for submission of documentation or performance of conditions which, by the terms of the Contract Documents, constitute conditions to Contractor's right to receive payment for Work performed.

9.5 COUNTY APPROVAL/REJECTION OF APPLICATIONS FOR PAYMENT

9.5.1 Review by County. Subject to County's rights under Paragraph 9.5.4, below, County shall promptly review Applications for Payment submitted by Contractor and provide its approval or disapproval, in whole or part, within (1) seven (7) Days after receipt of an Application for Payment requesting Progress Payment, and (2) within fourteen (14) Days after receipt of an Application for Payment requesting Final Payment.

9.5.2 Disapproval by County. Disapproval by County disapproving of an Application for Payment shall be accompanied by an explanation of the reasons for such disapproval. Failure by County to specify in its disapproval a particular grounds for disapproval of an Application for Payment shall not waive the County's right to assert such grounds as a basis for any future disapproval, or nullification of its prior approval, of that or any other Application for Payment.

9.5.3 Re-submittal by Contractor. An Application for Payment that is disapproved by County shall be corrected and re-submitted by Contractor after receipt by Contractor of the notice of disapproval. A re-submitted Application for Payment shall be reviewed and responded to by County in the same manner as provided in Paragraphs 9.5.1 and 9.5.2, above. If re-submitted, the re-submitted Application for Payment shall be reviewed and responded to by County in the same manner as provided in Paragraph 9.5.1 and Paragraph 9.5.2, above. If not re-submitted, only the amount, if any, that is approved for payment shall be paid until such time as a proper Application for Payment that includes the disapproved amount has been submitted in another Application for Payment and, upon such re-submittal, approved for payment.

9.5.4 Approval Nullification. County reserves the right to nullify any prior approval of an Application for Payment that is later found to not be in compliance with the requirements of the Contract Documents, whether or not such noncompliance was previously actually observed or apparent on the face of the Application for Payment, and based on such nullification County may take either of the following actions, as applicable: (1) if the Application for Payment has not yet been paid by County, disapprove of that portion of the Application for Payment that is not in compliance and withhold payment of that sum until the noncompliance is fully rectified; or (2) if the Application for Payment has been paid by County, nullify the County's prior approval and withhold payment of such disputed amounts in response to future Applications for Payment; provided, however, that in either case the amount of the County's nullification shall be limited to that portion of the amount requested in the Application for Payment that is in dispute and the amount of its withholding from the current or any future Application for Payment shall be limited to the amount nullified plus any additional withholding permitted under Section 9.6, below.

9.5.5 No Waiver by County. Neither approval by County of, nor failure by County to exercise its right of nullification with respect to, nor payment by County upon, an Application for Payment or any portion thereof shall be interpreted as or constitute a waiver or release of any of County's rights to require Contractor's full compliance with the Contract Documents.

9.5.6 No Representation. Neither approval by County of, nor failure by County to exercise its right of nullification with respect to, nor payment by County upon, an Application for Payment or any portion thereof shall be interpreted as a representation that County has: (1) made exhaustive or continuous on-Site inspections to check the quality or quantity of the Work, (2) reviewed Contractor's construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from the Subcontractors and other data requested by County to substantiate Contractor's right to payment, or (4) made examination to ascertain how or for what purpose Contractor has used money previously paid on account of the Contract Price.

9.6 WITHHOLDING OF PAYMENT

9.6.1 Grounds for Withholding. County may decline to approve an Application for Payment and withhold payment requested under any unpaid Application for Payment, in whole or in part, to such extent that County makes a Good Faith Determination that withholding is necessary, in the sole discretion of County, because of any of the following circumstances:

.1 Third-Party Claims. Third-party claims or stop payment notices filed or reasonable evidence (including, without limitation, failure by Contractor to submit conditional releases of stop payment notice and bond rights required by the Contract Documents) indicating the possible filing of such claims or stop payment notices.

.2 Defective Work. Defective Work not remedied.

.3 Nonpayment. Failure of Contractor to make proper payments to a Subcontractor for services, labor, materials or equipment or other Work.

.4 Inability to Complete. Reasonable doubt that the Work can be completed for the then unpaid balance of the Contract Price or within the Contract Time.

.5 Violation of Applicable Laws. Failure of Contractor or a Subcontractor to comply with Applicable Laws.

.6 Penalty. Any penalty asserted against County by virtue of Contractor's failure to comply with Applicable Laws.

.7 Lack of Progress. Failure by Contractor to maintain progress in accordance with the Construction Schedule.

.8 Setoff. Any reason specified elsewhere in the Contract Documents as grounds for a withholding, offset or setoff or that would legally entitle County to a setoff or recoupment.

.9 Consultant Services. Additional professional, consultant or inspection services required due to Contractor's failure to comply with the Contract Documents.

.10 Liquidated Damages. Liquidated damages payable to County pursuant to Section 3.2 of the Construction Contract or that there is a reasonable basis to believe will be payable to County based upon the Contractor's project date for Substantial Completion based on its update Construction Schedule or based upon other evidence available to County of the probable date that the Work will be Substantially Completed.

.11 Damage. Loss caused to County, a Separate Contractor or any other person or entity under contract to County, by Contractor or a Subcontractor.

.12 Cleanup. Cleanup performed by County and chargeable to Contractor pursuant to the terms of the Contract Documents.

.13 Employee Benefits. Failure of Contractor to pay contributions due and owing to employee benefits funds pursuant to any applicable collective bargaining agreement or trust agreement.

.14 Required Documents. Failure of Contractor to submit on a timely basis, proper and complete documentation required by the Contract Documents, including, without limitation, schedule updates, 'look ahead' schedules, pricing information, certifications and other required reports or documentation.

.15 Labor Compliance. Failure of Contractor or any Subcontractor to properly pay prevailing wages as defined in California Labor Code §§1720 et seq.

.16 Nullification. Nullification by County pursuant to Paragraph 9.5.4, above, of its prior approval of an Application for Payment.

.17 Releases. Failure by Contractor to submit any conditional release of stop payment notice and bond rights that is required pursuant to Subparagraph 9.4.2.3, above or Subparagraph 9.10.4.4, below.

.18 Other Breach. A breach by Contractor of any obligation or provision of the Contract Documents.

9.6.2 Application of Withholding. Sums properly withheld pursuant to Paragraph 9.6.1, above, may be used by County without a prior judicial determination of County's actual rights with respect to the grounds on which such withholding is based. County shall submit to Contractor an accounting of such funds disbursed on behalf of Contractor. As an alternative to such payment, County may, in its sole and absolute discretion, elect to exercise its right to adjust the Contract Price as provided in Section 13.4, below.

9.6.3 **Final Payment.** In accordance with California Public Contract Code §7107, the amount to be withheld from Contractor's Final Payment pursuant to a withholding asserted pursuant to Paragraph 9.6.1, above, shall be limited to one hundred fifty percent (150%) of the disputed amount.

9.6.4 **Release of Withholding.** When the reasons for withholding of payment as set forth in Paragraph 9.6.1, above, are removed, approval by County will be promptly issued to Contractor for amounts previously withheld and payment of amounts withheld will be made by County within thirty (30) Days thereafter.

9.6.5 **Additional Rights.** The County's right of withholding set forth in this Section 9.6 is in addition to, and not a limitation upon, any other rights of withhold that County may have under the Contract Documents or Applicable Laws.

9.7 PAYMENTS BY CONTRACTOR

9.7.1 **Payments to Subcontractors.** Contractor shall not include in its Applications for Payment sums on account of any Subcontractor's portion of the Work that it does not intend to pay to such Subcontractor. Upon receipt of payment from County, Contractor shall pay the Subcontractors performing the Work, out of the amount paid to Contractor on account of such Subcontractors' portions of the Work, the amount to which said Subcontractors are entitled in accordance with the terms of their contracts with Contractor and Applicable Laws, including, without limitation, California Public Contract Code §7107. Contractor shall remain responsible, notwithstanding a withholding by County pursuant to the terms of these General Conditions, to promptly satisfy from its own funds sums due to all the Subcontractors who have performed the Work that is included in Contractor's Application for Payment. Contractor shall, by appropriate agreement, require each Subcontractor to make payments to its sub-subcontractors and suppliers in similar manner. County shall have no obligation to pay or be responsible in any way for payment to the Subcontractors, of any Tier.

9.7.2 **Payments in Trust.** Any funds that Contractor receives in payment for services or Work performed by a Subcontractor shall constitute assets of a trust, which trust funds shall be used for the exclusive benefit of the Subcontractor for the purpose of discharging Contractor's financial obligations on account of labor, services, materials or equipment furnished to the Project by the Subcontractor, provided that such labor, services, materials or equipment were performed in accordance with the Contract Documents, were included in an Application for Payment to County, and were paid by the County to Contractor. Contractor shall be the trustee of the trust and shall be required to deal with the trust assets for the benefit of the Subcontractor. Contractor shall not be a beneficiary of the trust. Nothing herein shall be construed as an intent to require that Contractor maintain trust funds in separate bank accounts, specifically designate any third party as a beneficiary of the trust created herein, or otherwise give rise to any cause of action against the County by any third party beneficiary of the trust created herein.

9.7.3 **Payment Information.** County will, on request, furnish to any of the Subcontractors, if practicable, information for such Subcontractor's review regarding percentages of completion or amounts applied for by Contractor and action taken thereon by County on account of portions of the Work done by such Subcontractor.

9.7.4 **Joint Payment.** County shall have the right, if deemed necessary in its sole discretion, to issue joint checks made payable to Contractor and any of the Subcontractors, of any Tier. The joint check payees shall be solely responsible for the allocation and disbursement of funds included as part of any such joint payment. Endorsement on such check by a payee shall be conclusively presumed to constitute receipt of payment by such payee. In no event shall any joint check payment be construed to create: (1) any contract between County and any of the Subcontractors, of any Tier; (2) any obligation from County to any of the Subcontractors; or (3) any third-party rights against County.

9.7.5 **Direct Negotiation of Stop Payment Notices.** County shall have the right to directly discuss, negotiate, settle or pay, without notice to or participation by Contractor, any stop payment notice claims asserted by the Subcontractors, of any Tier, and to deduct such sums paid from sums due to Contractor.

9.7.6 **Release of Stop Payment Notices.** With the exception of that portion, and only that portion, of a stop payment notice or other claim that arises as a result of a failure by the County to make payment to Contractor under circumstances constituting a breach of the Construction Contract by County, if any stop payment notice or other claim, whether invalid or valid, is filed with, served upon or made or asserted against the County or the Site by any Subcontractor, of any Tier, or their agent or employee, for money claimed due, then Contractor shall within five (5) Days

after written notice by the County procure, furnish and record appropriate releases or other instruments which under Applicable Laws will fully release, extinguish and remove such stop payment notice or claim, as well as any notices of pending action or other notices recorded against the Site in connection with the enforcement thereof. All costs of such actions by Contractor shall be paid for by Contractor at Contractor's Own Expense. Unless and until fully released as aforesaid, the County shall have the right to retain from any payment then due, or thereafter to become due, to Contractor an amount equal to one hundred and fifty percent (150%) of the amount necessary to satisfy, discharge and defend against any such stop payment notice or claim and any action or proceeding thereon, including, without limitation, an amount for anticipated attorney's fees and costs. If the amount to be paid, or the amount retained, is insufficient to satisfy, discharge and defend against any such stop payment notice or claim and any action or proceeding thereon, then Contractor shall be liable for the difference and upon demand shall immediately deposit the same with the County. The provisions of this Paragraph 9.7.6 are in addition to such other rights as the County may have against Contractor under the Contract Documents or Applicable Laws.

9.7.7 No County Obligation. County has no obligation to pay or to see to the payment of money to any of the Subcontractors except as may otherwise be required by Applicable Laws.

9.8 FAILURE OF PAYMENT

If, through no fault of Contractor or failure by Contractor to comply with its obligations under the Contract Documents either: (1) approval or disapproval by County of an Application for Payment properly prepared and submitted by Contractor and requesting payment that is otherwise undisputed by County is not issued within the time period required therefor by the terms of this Article 9; or (2) the County does not (a) upon an Application for Payment properly prepared and submitted by Contractor pay to Contractor, within the time period required for payment by County, an undisputed amount approved by County as earned, which approval has not been, and is not thereafter, nullified by County, or (b) pay to Contractor an amount that has been awarded by arbitration or judgment of a court of competent jurisdiction, then Contractor may, following delivery to County of a written "10-day stop work order", stop the Work until, as applicable, an approval or disapproval by County, or payment by County, is received by Contractor. Promptly upon receipt of such approval or disapproval, or payment, as applicable, Contractor shall resume the Work. Any resulting Delay associated with the shut down and start up of the Work as a result of Contractor's proper exercise of its right to stop work under this Section 9.8 shall constitute a Compensable Delay.

9.9 SUBSTITUTION OF SECURITIES FOR RETENTION

9.9.1 Public Contract Code. Pursuant to the requirements of California Public Contract Code §22300, upon the Contractor's request, the County will make payment to the Contractor of any funds withheld from payments to ensure performance under the Contract Documents if the Contractor deposits with the County, or in escrow with a California or federally chartered bank in California acceptable to the County ("Escrow Agent"), securities eligible for the investment of State Funds under Government Code §16430, or bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and the County, upon the following conditions:

.1 The Contractor shall be the beneficial owner of any securities substituted for monies withheld for the purpose of receiving any interest on such securities.

.2 All expenses relating to the substitution of securities under said §22300 and under this Section 9.9, including, but not limited to the County's overhead and administrative expenses and expenses of Escrow Agent, shall be the responsibility of the Contractor.

.3 Securities or certificates of deposit substituted for monies withheld shall be of a value of at least equivalent to the amounts of the retention to be paid to the Contractor pursuant to the Contract Documents.

.4 If the Contractor shall choose to deposit securities in lieu of monies withheld with an Escrow Agent, the Contractor, the County and Escrow Agent shall, as a prerequisite to such deposit, enter into an escrow agreement. Such escrow agreement shall be substantially in the form "Escrow Agreement for Security Deposits in Lieu of Retention" set forth in California Public Contract Code §22300(f).

.5 The Contractor shall obtain the written consent of Surety to such agreement.

.6 Securities, if any, shall be returned to the Contractor only upon satisfactory Final Completion of the Work.

9.9.2 **Substitute Security.** To minimize the expense caused by such substitution of securities, the Contractor shall, prior to or at the time the Contractor requests to substitute security, deposit sufficient security to cover the entire amount to be withheld. Should the current market value of such substituted security at any time fall below the amount for which it was substituted, or any other amount which the County withholds pursuant to the Contract Documents, the Contractor shall immediately and at the Contractor's Own Expense deposit additional security qualifying under said §22300 until the current market value of the total security deposited is no less than the amount subject to withholding under the Contract Documents. Securities shall be valued as often as conditions of the securities market warrant, but in no case less frequently than once per month.

9.9.3 **Deposit of Retentions.** Alternatively, subject to the conditions set forth in Paragraph 9.9.1, above, upon request of the Contractor, the County shall make payment of retentions directly to Escrow Agent at the expense of the Contractor, provided that the Contractor, the County and Escrow Agent shall, as a prerequisite to such payment, enter into an escrow agreement in the same form as prescribed in Subparagraph 9.9.1.4, above. At the Contractor's Own Expense, the Contractor may direct the investment of the payments into securities and interest bearing accounts and the Contractor shall receive the interest earned on the investments. Escrow Agent shall hold such direct payments by the County under the same terms provided herein for securities deposited by the Contractor. Upon satisfactory Final Completion of the Work, the Contractor shall receive from Escrow Agent all securities, interest and payments received by Escrow Agent from the County, less escrow fees and charges of the Escrow Account, according to the terms of said §22300 and the Contract Documents.

9.10 FINAL PAYMENT

9.10.1 **Payment by County.** Subject to the County's right of withholding as set forth in Section 9.6, above, or elsewhere in the Contract Documents, Final Payment shall be made by County not more than sixty (60) Days after completion of the Work as defined in Clauses (1), (2), (3) or (4) of California Public Contract Code § 7107(c), whichever definition is earliest satisfied.

9.10.2 **Application for Final Payment.** Upon issuance by County of the Notice of Final Completion pursuant to Paragraph 9.13.5, below, Contractor shall submit to County its Application for Payment requesting Final Payment.

9.10.3 **Review by County.** County will review and approve or disapprove of the Application for Payment requesting Final Payment as provided in Section 9.5, above.

9.10.4 **Conditions to Final Payment.** Without limitation to any other conditions to payment set forth elsewhere in the Contract Documents, the following shall be conditions to a proper submission, and to County's approval, of Contractor's Application for Payment requesting Final Payment:

- .1 submission of Contractor certification as required by Paragraph 9.2.10, above;
- .2 submission of consent of Surety, if any, to Final Payment;
- .3 submission of a certificate evidencing that the insurance required by the Contract Documents is in force;
- .4 submission of conditional releases and waivers of stop payment notice and bond rights upon final payment in the form required by California Civil Code §8136 executed by Contractor and by all the Subcontractors, of every Tier;
- .5 submission of all Close-Out Documents (including, without limitation, complete, accurate Record Drawings and Specifications certified by Contractor as required by Paragraph 3.10.1, above);

.6 timely submission of adequate and complete certified payroll records for any time period that Work was performed, which have not been submitted by Contractor in connection with its previous Applications for Payment;

.7 proper payment of prevailing wages as defined in California Labor Code §§1720, et seq.;

.8 submission of certifications by Contractor and each Subcontractor, as required by any applicable collective bargaining agreement or trust agreement or Applicable Laws, certifying that all employee benefit contributions due and owing have been paid in full; and

.9 submission of any other documents or information required by the Contract Documents as a condition of Final Payment or Final Completion.

9.10.5 **Disputed Amounts.** Pursuant to California Public Contract Code § 7107, County may deduct and withhold from Final Payment an amount of up to one hundred fifty percent (150%) of any disputed amounts, including, without limitation, amounts to protect County against any Loss caused or threatened as a result of Contractor's failing to fully satisfy the conditions of Final Completion and Final Payment.

9.10.6 **No Waiver by County.** The making of Final Payment by County shall not constitute a waiver by County of any rights or claims, including, without limitation, any right or claim for reimbursement of Allowable Costs or Allowable Markup paid to Contractor that is determined by County, either before or after Final Payment, to have been not due to Contractor.

9.10.7 **WAIVER BY CONTRACTOR.**

ACCEPTANCE OF FINAL PAYMENT BY CONTRACTOR OR A SUBCONTRACTOR SHALL CONSTITUTE A WAIVER OF ALL RIGHTS BY THAT PAYEE AGAINST COUNTY FOR RECOVERY OF ANY LOSS, EXCEPTING ONLY THOSE CLAIMS THAT HAVE BEEN SUBMITTED BY CONTRACTOR IN THE MANNER REQUIRED BY SECTION 4.3, ABOVE, PRIOR TO, OR AT THE TIME OF CONTRACTOR'S SUBMISSION TO COUNTY OF, ITS APPLICATION FOR PAYMENT REQUESTING FINAL PAYMENT.

9.11 **SUBSTANTIAL COMPLETION**

9.11.1 **Contract Time.** Contractor shall achieve Substantial Completion of the Work, or such portion of the Work as may be designated at any time by County for separate delivery, in accordance with the requirements of the Contract Time and other provisions of the Contract Documents.

9.11.2 **Request for Inspection.** Contractor shall notify the County when Contractor believes that the Work, or portion thereof designated by the County in the Contract Documents or otherwise for separate delivery, is Substantially Complete.

9.11.3 **Substantial Completion Inspection.** When Contractor gives notice to County that it has achieved Substantial Completion of the Work, or a County designated portion thereof, unless the County determines that the Work or County designated portion thereof is not sufficiently complete to warrant an inspection to determine Substantial Completion, County, Inspector of Record, and such others as may be designated by County will inspect the Work, or such County designated portion thereof.

9.11.4 **Substantial Completion Punch List.** At the conclusion of such inspection, County shall prepare and give to Contractor (or, Owner may request that Contractor prepare and provide to County) a Substantial Completion Punch List of items, if any, to be completed or corrected for Substantial Completion. If Contractor disputes any of the items included, it shall so note its objection on the Substantial Completion Punch List. Contractor shall proceed within forty-eight (48) hours after preparation of the Substantial Completion Punch List to commence correction or completion of the items on the Substantial Completion Punch List, including, without limitation, any disputed items, and all such items of Work shall be completed promptly by Contractor before the Work will be considered as Substantially Complete. Failure by County, Inspector of Record or Contractor to include an item on the Substantial Completion Punch List does not alter the responsibility of Contractor to perform the Work in accordance with the Contract Documents. Items of Work necessary for Substantial Completion that, for any reason, have been omitted from the Substantial Completion

Punch List shall be added to the Substantial Completion Punch List and Contractor shall, at the request of County, or Inspector of Record made at any time prior to Final Payment commence correction or completion of such items within forty-eight (48) hours and all such items of Work shall be completed by Contractor promptly and before the Work will be considered as Substantially Complete.

9.11.5 Re-Inspection. Contractor shall notify County when the items of Work shown on the Substantial Completion Punch List are completed. County, Inspector of Record, and such others as County deems necessary or appropriate will then make a further inspection to determine whether such Work is Substantially Complete. If such inspection, or any subsequent re-inspection required pursuant hereto, discloses any item, whether or not included on the Substantial Completion Punch List, which must be completed or corrected before Substantial Completion, Contractor shall, as a condition of Substantial Completion, complete or correct such item, which shall then be re-inspected to confirm that such Work is Substantially Complete. Contractor shall reimburse County, or County may at its option withhold from Contractor's payments, amounts incurred by County to the Inspector of Record, County Consultants or others whose services, for reasons within the control or responsibility of Contractor or the Subcontractors, are necessary for more than two (2) such re-inspections to determine Substantial Completion.

9.11.6 Notice of Substantial Completion. When County determines that the Work, or such designated portion thereof, is Substantially Complete, County will prepare a Notice of Substantial Completion on the County's form, which shall state the date of Substantial Completion. If the Notice of Substantial Completion is for the entire Work, then the County will attach to it the Final Completion Punch List prepared in accordance with Paragraph 9.13.2, below. Regardless of the date the Notice of Substantial Completion is issued, Substantial Completion shall be deemed to have occurred on the date stated in the Notice of Substantial Completion.

9.12 PARTIAL OCCUPANCY OR USE

County reserves the right to beneficially occupy all or any portion of the Work at any time before Substantial Completion of the entire Work. Beneficial occupancy means that County has assumed physical occupancy and use of all or such portion of the Work. Commencement of improvements or other work by Separate Contractors in order to ready the Work for use or occupancy by County shall be unconditionally permitted in all cases prior to Substantial Completion and shall not constitute a taking of beneficial occupancy by County. Exercise by County in accordance with the provisions of this Section 9.12 of its right to take beneficial occupancy shall not constitute grounds for a Contract Adjustment. The County's right of beneficial occupancy of all or a portion of the Work prior to Substantial Completion shall be subject to the following conditions:

9.12.1 County and such others as County deems necessary will make an inspection of the portion of the Work to be beneficially occupied and prepare a list of items to be completed or corrected in the same manner as required by and subject to the same conditions as set forth in Section 9.11, above.

9.12.2 Beneficial occupancy by County shall not be construed as Acceptance of that portion of the Work which is to be occupied.

9.12.3 Except as otherwise provided in this Section 9.12, beneficial occupancy by County shall not constitute a waiver of rights of the County against Contractor. Notwithstanding anything stated in this Section 9.12 or elsewhere in the Contract Documents to the contrary, beneficial occupancy by County shall not constitute a waiver of rights of County relating to Defective Work in the area beneficially occupied or in any other portion of the Work.

9.12.4 Prior to the County's taking beneficial occupancy, Contractor shall submit to County an itemized list of each piece of equipment located in or serving the area to be occupied stating the date operation of such piece of equipment commenced, together with operating instructions, manuals and other information required by the Contract Documents. Contractor shall provide, in the areas beneficially occupied, on a continual basis, utility services, elevator service, and heating and cooling systems in operable condition commencing at the time of beneficial occupancy and until Final Completion of the entire Work. County shall be responsible, from and after taking occupancy, for utility consumption, regular operation and regular maintenance of such systems or equipment.

9.12.5 County shall pay all normal operating and maintenance costs resulting from its use of equipment in areas beneficially occupied.

9.12.6 County shall pay all utility costs that arise out of its beneficial occupancy.

9.12.7 Contractor shall not be responsible for providing security in areas beneficially occupied.

9.12.8 County shall use its best efforts to prevent its beneficial occupancy from interfering with the conduct of Contractor's remaining Work.

9.12.9 Contractor shall not be required to repair damage caused solely by County's beneficial occupancy.

9.12.10 Contractor shall continue to maintain all insurance required by the Contract Documents in full force and effect.

9.13 FINAL COMPLETION

9.13.1 **Contract Time.** Contractor shall expeditiously and diligently perform the Work after Substantial Completion, including, without limitation, all items of Work on the Final Completion Punch List that accompanies the Notice of Substantial Completion, so as to achieve Final Completion within the requirements of the Contract Time for Final Completion.

9.13.2 **Final Completion Punch List.** Contractor shall prepare and submit to County at the time that Contractor requests inspection for Substantial Completion of the entire Work pursuant to Paragraph 9.11.2, above, a draft proposed Final Completion Punch List of items of Work that will be required to be completed or corrected for Final Completion. Items identified in the course of any inspection for Substantial Completion that are required to Finally Complete the Work following Substantial Completion shall be added to the proposed Final Completion Punch List and the revised Final Completion Punch List attached to the Notice of Substantial Completion. If Contractor disputes any of the items included, it shall so note its objection on the Final Completion Punch List. When Contractor considers the Final Completion Punch List to be complete, it shall promptly sign and deliver the Final Completion Punch List to the County. Failure by County, Inspector of Record or Contractor to include an item on the Final Completion Punch List does not alter the responsibility of Contractor to perform the Work in accordance with the Contract Documents. Items of Work necessary for Final Completion that, for any reason, have been omitted from the Final Completion Punch List shall be added to the Final Completion Punch List upon request by the County made at any time prior to Final Payment and completion of such items shall be made promptly and before the Work will be considered Finally Complete.

9.13.3 **Performance of Punch List.** Contractor shall proceed promptly and in accordance with the Contract Time to correct and complete the items on the Final Completion Punch List, including, without limitation, any disputed items, and all such items of Work shall be completed by Contractor before the Work will be considered as Finally Complete.

9.13.4 **Request for Final Inspection.** Contractor shall notify County when Contractor believes that the Work is Finally Complete. County, Inspector of Record, and such others as County deems necessary or appropriate will then make a further inspection to determine whether such Work is Finally Complete. If such inspection, or any subsequent re-inspection required pursuant hereto, discloses any item, whether or not included on the Final Completion Punch List, which must be completed or corrected before Final Completion, Contractor shall, as a condition of Final Completion, complete or correct such item, which shall then be re-inspected to confirm that such Work is Finally Completed. Contractor shall reimburse County, or County may at its option withhold from Contractor's payments, amounts incurred by County to the Inspector of Record, County Consultants or others whose services, for reasons within the control or responsibility of Contractor or the Subcontractors, are necessary for more than two (2) inspections to determine Final Completion.

9.13.5 **Notice of Final Completion.** When County determines that the Work is Finally Complete, County will prepare a Notice of Final Completion on the County's form, which shall state the date of Final Completion. Regardless of the date the Notice of Final Completion is issued, Final Completion shall be deemed to have occurred on the date stated in the Notice of Final Completion.

9.13.6 **Acceptance by County.** Acceptance may be exercised by County, in its sole and absolute discretion, either after Final Completion or, without waiving or releasing Contractor from any of its obligations under the Contract Documents, at any time after Substantial Completion and prior to Final Completion.

9.13.7 **Notice of Completion.** In addition to issuance of the Notice of Substantial Completion and Notice of Final Completion, County shall have the right, exercised in its sole and absolute discretion, to record a Notice of Completion pursuant to California Civil Code §9204.

9.13.8 **No Waiver by County.** No inspections conducted pursuant to this Article 9 nor any approvals or certificates issued by County or Inspector of Record shall be deemed to be a waiver or limitation on County's right to insist on Final Completion and full performance of all other conditions to Final Payment under the Contract Documents prior to issuance of Final Payment to Contractor.

ARTICLE 10 INSPECTIONS, SAFETY AND HAZARDOUS SUBSTANCES

10.1 INSPECTIONS

10.1.1 **General.** One or more Inspectors of Record, including special inspectors as required, may be employed by County and assigned to the Work. The fees of Inspectors of Record shall be directly paid for by County. IF INSPECTORS OR RECORD ARE ASSIGNED TO THE WORK, THEN NO WORK SHALL BE CARRIED ON EXCEPT UNDER THE INSPECTION, AND WITH THE KNOWLEDGE, OF THE APPROPRIATE INSPECTOR(S) OF RECORD, and Contractor shall be responsible, at Contractor's Own Expense, to remove and replace any Work performed without such inspection by the appropriate Inspector of Record.

10.1.2 **Coordination.** Contractor shall schedule, arrange, and coordinate its activities with the activities of the County, Inspectors of Record, County Consultants and others designated by County to inspect or observe the Work. When, in order to comply with the intent of the Contract Documents, inspection or observation must be made at the plant or mill of the manufacturer or fabricator of material or equipment, Contractor shall notify the County, as well as any other persons identified by County as assigned by it to inspect or observe the Work, a sufficient length of time in advance to allow for arrangements to be made for such inspection or observation.

10.1.3 **Uncovering of Work.** County or an Inspector of Record shall have the right to request that any portion of the Work be uncovered by Contractor for inspection. Except as otherwise provided in Paragraph 10.1.1, above, if such Work is found to be in accordance with the Contract Documents, then all of the additional costs incurred in uncovering, replacing and re-covering the Work shall constitute grounds for Contractor, upon proper notice and request pursuant to Article 7, above, to receive a Contract Adjustment for Compensable Change and if such uncovering, replacing and re-covering of the Work causes a Delay, such Delay shall constitute grounds for Contractor, upon proper and timely notice and request pursuant to Article 8, above, to receive a Contract Adjustment for Compensable Delay. If such Work is not in accordance with the Contract Documents, then such costs of uncovering, replacing and re-covering shall be paid for by Contractor at Contractor's Own Expense and any resulting Delay shall be consider an Unexcused Delay.

10.1.4 **Off-Hours Inspections.** Contractor shall request approval by County before arranging any inspections either: (1) before 7:00 am or after 3:00 pm on Monday through Friday, or (2) on any Saturday, Sunday, holiday or any other time when Work is not usually in progress. Such request shall be delivered to County at least two (2) working days in advance of the inspection being performed. Approval or disapproval of such request is in the sole and absolute discretion of County. Except where such off-hours inspections are due to a breach by County of an obligation under the Contract Documents, the additional cost (over and above that which would be required for inspections during regular business hours) to County of the inspection shall be paid for by Contractor at Contractor's Own Expense.

10.1.5 **Access to the Work.** Contractor shall make available for use by County, Inspectors of Record, County Consultants and others assigned to inspect or observe the Work, any equipment (wheelbarrow, shovel, ladder, man-lift, etc.) that is available or in use on Site, and is required to assist in such inspections or observations.

10.1.6 **Right to Stop Work.** County shall have the right, but not the obligation, to order Contractor to stop performance of Work. Inspectors of Record shall, only if and to the extent permitted by Applicable Laws or if they are given written authority to do so by County, have the authority, but not the obligation, to stop the Work whenever provisions of Contract Documents are not being complied with, or the conduct of the Work poses a probable risk of harm to persons or property.

10.1.7 **No County Duty.** No authority of the County, Inspectors of Record, County Consultants or others designated by County to inspect the Work that is conferred by the Contract Documents nor any decision made by any of them in good faith either to exercise or not exercise such authority, nor any recommendation by any of them, shall give rise to a duty or responsibility on the part of any of them to Contractor or to the Subcontractors, of any Tier.

10.1.8 **Contractor Responsibility.** Inspections or observations by the County, Inspectors of Record, County Consultants or others shall not in any way relieve Contractor from its sole responsibility for full compliance with all of the terms and conditions of the Contract Documents, nor be construed to lessen, to any degree, Contractor's responsibility for providing efficient and capable superintendence as required herein or for incorporating into the Work only those items of the Work that conform to the Contract Documents.

10.1.9 **Reimbursement to County.** Without limitation to any other provisions of the Contract Documents, Contractor shall reimburse the County at Contractor's Own Expense, or County shall have the right, at its option, to withhold from payments due to Contractor, costs of inspections, observations or testing and other Losses that are incurred for any of the following reasons: (1) Contractor has failed to execute the Work in accordance with the Contract Documents; (2) materials or equipment have been substituted by Contractor, without prior approval by the County; (3) Defective Work; or (4) to conduct load testing of certain portions of the structure that have not fully met the requirements of the Contract Documents.

10.2 SAFETY PRECAUTIONS AND PROGRAMS

10.2.1 **General Safety Obligation.** Contractor shall, notwithstanding the activities of others (such as, but not limited to, the County, Inspectors of Record, County Consultants or others designated by County to prepare safety recommendations or inspect or observe the Work), be solely responsible, on a twenty-four (24) hours a Day, seven (7) Days a week basis, for initiating, maintaining and supervising all safety precautions and programs on the Site in connection with the preparation, performance, observation or inspection of the Work, including all necessary precautions to protect and safeguard all persons and property from loss, injury, death or damage resulting, directly or indirectly, from the activities of Contractor or the Subcontractors, including, without limitation, all of the following:

- .1 persons in and around the Site, as well as their personal property and vehicles;
- .2 the Work, materials and equipment to be incorporated therein under care, custody or control of Contractor or the Subcontractors, of any Tier, whether in storage on or off the Site, including, without limitation, the provision of temperature control, covering and enclosures necessary to prevent Loss due to adverse weather conditions;
- .3 other property at the Site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, curbs, roadways, structures (including, without limitation, protection from settlement or loss of lateral support) and utilities not designated for removal, relocation or replacement in the course of construction; and
- .4 construction and operations by the County and Inspectors of Record.

10.2.2 **Contractor's Safety Program.** Prior to starting the Work, Contractor shall prepare and submit to County a Safety Program, which shall comply with the requirements of the Contract Documents and shall include, at a minimum, guidelines, requirements and procedures for the following: safety management policy; emergency response plan; illness and injury prevention procedures; safety meetings; accident investigation; basic accident causes; safety inspection checklist; fire prevention and control; report forms; and employee safety manual and procedures for achieving compliance with safety requirements of insurers. A copy of the Safety Program shall be maintained on Site at all times and provided to the County upon request. Contractor is solely responsible for monitoring activities at the Site for compliance with the Safety Program and for the enforcement thereof.

10.2.3 **Safety Orders.** Contractor shall comply with all Applicable Laws, including, without limitation, all safety laws, standards, orders, rules, regulations and building codes, to prevent accidents or injury to persons on, about or adjacent to the Site and to provide a safe and healthful place of employment. Contractor shall, at Contractor's Own Expense, correct any violations of Applicable Laws occurring or threatened by conditions on the Site.

10.2.4 **Safety Representative.** Contractor shall designate a responsible member of its organization on the Site, who meets the qualification and competency requirements of Applicable Laws and whose sole duty shall be giving

safety instructions, prevention of accidents and overall job site safety (including, without limitation, posting of information and other notices regarding safety that are required under occupational safety and health laws and compliance with reporting and other occupational safety requirements pertaining to the protection of the life, safety and health of the workers). The name of the person so designated shall be reported to the County by Contractor prior to the commencement of any Work on the Site.

10.2.5 Protection. Contractor shall take reasonable precautions to protect the Work and all building materials, equipment, temporary field offices, storage sheds, and other public and private real and personal property that might be affected, directly or indirectly, by Contractor's activities associated with performance of the Work, and shall make good, at Contractor's Own Expense, all Loss due to failure to provide such reasonable precautions.

10.2.6 Safeguards, Disabled Access. Contractor shall erect and maintain, as required by existing conditions and performance of the Work, all necessary safeguards for safety and protection, including, without limitation, safety devices, belts, nets, barriers, safety rails, canopies, danger signs, fire protection, no smoking prohibitions, warnings against hazards, safety regulations postings and notifications to owners and users of adjacent sites and utilities, and shall, as required by Applicable Laws, make provision for access for, and provide assistive devices to, persons with disabilities, including, without limitation, providing safe pathways of travel around areas where construction is being performed so that occupants, visitors, the public and others on the Site with disabilities are afforded reasonably direct and barrier-free access to areas of the Site and Existing Improvements.

10.2.7 Fire, Explosives, Hazardous Substances. Contractor shall take all necessary precautions to guard against and eliminate possible fire hazards. Explosives may be used or stored only when authorized in writing by the County. Explosives shall be handled, used and stored in accordance with Applicable Laws. When use or storage of explosives or other Hazardous Substances or methods of construction involving use of dangerous materials or equipment are necessary for execution of the Work, Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

10.2.8 First Aid. Contractor shall maintain emergency first aid treatment for all workers and other persons on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C.A. §§651 et seq.) and all other Applicable Laws.

10.2.9 Unsafe Conditions. Contractor shall immediately correct any condition that exists on the Site, or that County, in its reasonable judgment, determines to exist on the Site, that is unsafe or potentially unsafe to persons or property.

10.2.10 Responsibility for Loss. Contractor shall promptly remedy Loss to any property or person caused in whole or in part by the failure of Contractor, the Subcontractors, of any Tier, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable to fully comply with the requirements of this Article 10, except Loss attributable solely to the negligent acts or omissions of the County, Inspectors of Record, County Consultants or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and not attributable, in whole or in part, to the negligence, willful misconduct or violation of Applicable Laws by Contractor or a Subcontractor, of any Tier, or the failure by Contractor to comply with the Contract Documents. The foregoing obligations of Contractor are in addition to and not a limitation upon Contractor's indemnity obligations under Section 3.18, above.

10.2.11 Loading, Storage. Contractor shall be responsible for coordinating the storage and staging of materials and equipment on-Site and off-Site and shall not load or store or permit any part of the Work or the Site to be loaded or stored so as to endanger the safety of persons or risk loss or damage to property.

10.2.12 Emergency.

.1 Contractor Responsibility. In an emergency involving safety or protection of persons or property, Contractor shall act immediately, either at County's direction or as otherwise necessary under the circumstances, to prevent any Loss. In such cases, Contractor shall immediately notify County, which notice may be oral, followed within twenty-four (24) hours after occurrence of the incident by written confirmation of the occurrence of such emergency and Contractor's action in response thereto.

.2 County Action. If, in the sole discretion of County, the condition is immediately threatening life or property, County may, with or without notice to Contractor, take whatever immediate action is necessary to correct the life-threatening condition, and the costs thereof, including, without limitation, any fees or costs of Inspectors of Record, County Consultants or others to whom County may be liable, shall be borne by Contractor at the Contractor's Own Expense.

10.2.13 No County Responsibility. Nothing set forth in this Section 10.2 or elsewhere in the Contract Documents shall be interpreted as an assumption of any responsibility on the part of County or other persons or entities other than the Contractor and the Subcontractors, to report such conditions to Contractor nor as relieving Contractor of any of its responsibilities under the Contract Documents.

10.2.14 Separate Contractors. With respect to work of a Separate Contractor being performed within an area of the Site that is under the responsibility or control of the Contractor, Contractor shall: (1) provide copies of the Safety Program to the Separate Contractors and advise the Separate Contractors of the areas of the Site to which the Safety Program applies and where compliance with the Safety Program is expected; (2) protect the Separate Contractors' work and workers from Loss due to the actions or inactions of Contractor and the Subcontractors; and (3) notify the Separate Contractor and County of any observed violation by the Separate Contractor of the Safety Program or of any violations by the Separate Contractor of Applicable Laws governing safety on the Site. Nothing herein shall be interpreted as relieving the Separate Contractors from their obligations to comply with the Contractor's Safety Program, as excusing any failure by a Separate Contractor from performing its obligations under its contracts with County or Applicable Laws or as obligating Contractor to directly supervise or enforce the obligations of the Separate Contractors to comply with the requirements of the Safety Program or Applicable Laws relating to safety.

10.3 HAZARDOUS SUBSTANCES, MOLD

10.3.1 Hazardous Substances.

.1 On Site Conditions.

(1) Existing Conditions. In the event Contractor or its Subcontractors encounter materials existing or otherwise present at the Site that are reasonably believed to be Hazardous Substances that have not been rendered harmless, Contractor and Subcontractors shall, except in cases where the removal, encapsulation or abatement of such Hazardous Substances is indicated by the Contract Documents to be part of the Work to be performed by Contractor, immediately stop Work in the area affected and report the condition to County in writing. Contractor and Subcontractors shall continue Work in unaffected areas reasonably believed safe. County shall then promptly arrange for the sampling, testing and profiling of such suspected Hazardous Substances to confirm the nature, quantity or concentration thereof. In the event that such suspected Hazardous Substances are determined not to be Hazardous Substances or to be Hazardous Substances but not of sufficient nature, quantity or concentration to trigger handling and manifesting of the same as a hazardous waste upon disturbance and removal, then Contractor and its Subcontractors shall, without any Contract Adjustment, be obligated to resume the portion of the Work that was suspended and shall proceed to handle and dispose of such materials pursuant to the Contract Documents, taking all reasonable precautions that are applicable under the circumstances. If, alternatively, the suspected Hazardous Substances are determined to be Hazardous Substances of sufficient nature, quantity or concentration to trigger handling and manifesting of the same as hazardous waste upon disturbance and removal, the parties shall determine what, if any, action to take with respect to such Hazardous Substances, whether to resume Work with respect to such Hazardous Substances, taking all reasonable precautions that are applicable under the circumstances, and what, if any, Contract Adjustment is appropriate and mutually agreed in order to account for any increased cost of, or Delay in connection with, handling or disposal of Hazardous Substances not already contemplated and provided for in the Contract Documents.

(2) Contractor Release. Contractor and its Subcontractors shall not cause the discharge, release, emission, spill, storage, treatment or disposal of any Hazardous Substance on or adjacent to the Site, except as required and permitted by the Contract Documents and Applicable Laws in connection with Contractor's performance of an obligation to remove Hazardous Substances as part of the Work agreed to be performed under the Contract Documents or as otherwise required under the provisions of this Subparagraph 10.3.1.1. Should Contractor or its Subcontractors discharge, release, emit, spill, treat, store or dispose of any Hazardous Substance on the Site in violation of the foregoing obligation or otherwise in violation of Applicable Laws, Contractor shall at Contractor's Own Expense

and without limitation to County's other rights or remedies for default immediately (a) inform County in writing of such event, (b) advise County with respect to any release reporting or notification requirement that may apply as a result of such event, (c) assist County in complying with any such reporting or notification requirement as determined by County, and (d) perform any investigation, remediation, removal or other response that is necessary or desirable in order to abate or clean up the condition resulting from such event to the full satisfaction of County and any applicable Governmental Authority. Such Hazardous Substances shall be removed and properly disposed of as soon as they can be accepted at an appropriate disposal facility, and in no event later than sixty (60) Days after such waste is generated, unless a longer time is approved by County.

.2 Remediation by Contractor.

(1) Application. The provisions of this Paragraph 10.3.1.2 shall apply only if the Work to be performed by Contractor includes within its scope the removal, abatement, moving, handling, containment, disposal or transport of Hazardous Substances

(2) Advance Submissions to County. Before Contractor or any of its Subcontractors moves, removes, or transports Hazardous Substances to a facility for the receipt, treatment, storage or disposal of the Hazardous Substances ("Hazardous Substances Facility"), Contractor shall cause the person or entity who will be moving, removing or transporting the Hazardous Substances to provide to County the following: (a) verification of the Hazardous Substance Facility's or other transporter's licensed status to haul such materials; (b) verification of the Hazardous Substance Facility's licensed status, including a current permit to receive the specific materials to be transported there; (c) certification that the Hazardous Substance Facility is not under enforcement action by the U.S. Environmental Protection Agency ("EPA") or applicable State Governmental Authority or listed on any applicable EPA or applicable State Government Authority list of violating facilities; (d) verification of the Hazardous Substances Facility's EPA Identification Number (if applicable); and (e) original executed letter(s) of indemnity from the Hazardous Substances Facility bearing the Hazardous Substance Facility's letterhead. Contractor further warrants that the selected Hazardous Substance Facility is appropriately licensed and permitted to store, treat and dispose of Hazardous Substances waste in connection with the Work.

(3) Contractor Responsibility. Contractor warrants that it is aware of and understands the hazards which are presented to persons, property and the environment in performance of the transportation, storage and disposal of the Hazardous Substances described in the Contract Documents. Contractor and its Subcontractors and agents shall be responsible for the following: (a) processing the application for, and receiving on behalf of the County or appropriate entity, an EPA or state-equivalent generator identification number (if required); (b) preparing manifests and other shipping documents; (c) making all necessary arrangements (after consultation with County) for any off-Site transportation, treatment, storage and disposal of such Hazardous Substances in accordance with Applicable Laws; (d) ensuring the proper and lawful transportation and disposal of such Hazardous Substances, even if such services are performed by other entities under contract with Contractor or its Subcontractors; and (e) taking any necessary actions to ensure such proper transport and disposal in the event of any contingency, such as the rejection of the Hazardous Substances as nonconforming by any waste disposal facility. Contractor shall promptly provide to County copies of all manifests and other shipping documents confirming the receipt and proper disposal of all Hazardous Substances at the Hazardous Substances Facility, even if such services are performed by other entities under contract with Contractor or its Subcontractors.

(4) Reporting Requirements. Contractor shall comply with any Hazardous Substances release reporting requirements to Governmental Authorities directly applicable to Contractor. Notice of such reporting must be provided in advance to County or concurrently in the event of an emergency.

(5) Samples. Contractor and its Subcontractors shall retain all media samples for the longer of (a) the longest holding period specified in any federal, state or local laboratory analytical procedures or guidance for the analyses performed; or (b) three months for soil samples and thirty (30) Days for water samples. Further storage or transfer of samples will be made at County's expense upon County's written request of Contractor. Contractor shall require by contract that each and every Subcontractor and agent of Contractor or a Subcontractor who performs testing of samples in connection with the Work properly disposes of such samples in accordance with Applicable Laws after completion of testing and notice to County. Regarding any such samples which may remain on-Site, provided County has approved of such on-Site storage in advance, County agrees to pay all costs associated with the storage, transport, and disposal of such samples.

(6) Verification. Upon Final Completion of the Work, Contractor shall confirm to County in writing that: (a) all Hazardous Substances specified for removal in the Contract Documents have been removed; and (b) all Hazardous Substances wastes removed from the Site as part of the Work have been disposed of in accordance with this Subparagraph 10.3.1.2 and Applicable Laws in a Hazardous Substances Facility.

10.3.2 Mold. Contractor is responsible to immediately notify County in writing if any conditions in the construction materials incorporated or to be incorporated into the Work or present in Existing Improvements are encountered at the Site that Contractor or any Subcontractor knows or, in the exercise of due care of a Contractor and not that of a consultant with special or technical expertise in the subject of Mold, should know indicate the presence of Mold or if untreated are likely to result in the growth of Mold. Contractor shall thereafter take such precautions as are reasonably required to prevent the exposure of persons to such conditions until they have been evaluated. Except as otherwise authorized by the Contract Documents or as are usual and customary according to prevailing standards of the construction industry in the vicinity of the Project, Contractor shall not allow water or moisture to come into contact with materials in Existing Improvements or with materials located at the Site that are incorporated or to be incorporated into the Work and if such contact occurs, the areas affected shall be inspected by Contractor, using appropriate consultants experienced in testing and evaluating Mold, for the presence of Mold and evaluated for the potential of future growth of Mold. All portions thereof that are found to indicate the presence of Mold, or that are found to be in a condition that has the potential for becoming a source of Mold, shall be removed and replaced. Costs incurred by Contractor due to its failure to perform its obligation under this Paragraph 10.3.2 shall be borne by Contractor at Contractor's Own Expense.

10.3.3 Release of County. Contractor assumes the risk that its employees or the employees of its Subcontractors, and other persons that they cause or permit to be present on the Site, may be exposed to known Hazardous Substances or Mold. Under no circumstances shall County be liable for, and Contractor hereby fully and unconditionally releases County and the other Indemnitees from, and agrees to defend and indemnify County and the other Indemnitees on the terms set forth in Section 3.18, above, against, any and all known Losses resulting from or relating to the exposure of any employee of Contractor or its Subcontractors, or other person that they cause or permit to be present on the Site, to: (1) Hazardous Substances or Mold encountered in connection with or as a result of the performance of the Work, or (2) Hazardous Substances or Mold not necessarily encountered in connection with the performance of the Work, but to which any of them may nevertheless be exposed as a result of their being present on the Site.

10.3.4 Communications with Governmental Authorities. Contractor shall provide to County copies of all written communications with Governmental Authorities or others relating to Hazardous Substances or Mold (other than privileged communications); provided, however, that non-disclosure of privileged communications shall not limit Contractor's obligation to otherwise comply with the terms of the Contract Documents, including, without limitation, this Section 10.3.

10.3.5 Subcontractors. Contractor shall include provisions in all contracts it enters into with Subcontractors for the Work requiring them to assume toward Contractor and County the same obligations that Contractor assumes toward County under this Section 10.3. Contractor shall require the Subcontractors to ensure that such provisions are included in all contracts they enter into with all lower-Tier Subcontractors.

ARTICLE 11 INSURANCE

11.1 INSURANCE

11.1.1 Contractor's Insurance Requirements. Without limiting or diminishing any of the Contractor's obligations to defend, indemnify or hold the County harmless as set forth elsewhere in the Contract Documents, Contractor shall procure and maintain or cause to be maintained throughout the performance of the Work and for the duration of any guarantee or warranty provided under the Contract Documents, at Contractor's Own Expense, the following insurance coverages:

.1 Workers' Compensation. If the Contractor has "employees", as defined by the State of California, the Contractor shall provide a policy of statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Such policy shall include Employers' Liability (Coverage B) including

Occupational Disease with limits not less than \$1,000,000 per person per accident. Such policy shall be endorsed to waive subrogation in favor of the County and, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement. Pursuant to §3700 of the California Labor Code, Contractor shall file with the County before commencing the Work the following signed certification:

"I am aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I shall comply with such provisions before commencing the performance of the Work of this Construction Contract."

.2 Commercial General Liability. Contractor shall provide a policy of Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products and completed operations liability, personal and advertising injury, and cross liability coverage, covering claims which may arise from or out of Contractor's performance of its obligations hereunder. Such policy shall name the County, its agencies, districts, special districts and departments, and their respective directors, officers, elected or appointed officials, agents, employees and representatives, including, without limitation, the members of the Board of Supervisors, and all other Indemnitees, as "additional insureds" and contain a waiver of subrogation in favor of the County and all other such additional insureds. Such policy's limit of liability shall not be less than \$1,000,000 per occurrence combined single limit. If such policy contains a general aggregate limit, it shall apply separately to the Construction Contract or be no less than two (2) times the occurrence limit.

.3 Vehicle Liability. If vehicles or mobile equipment are used in the performance of the Work or other obligations under the Contract Documents, then Contractor shall provide a policy of liability insurance coverage for all owned, non-owned or hired vehicles so used in an amount not less than \$1,000,000 per occurrence combined single limit. If such policy contains a general aggregate limit, it shall apply separately to the Construction Contract or be no less than two (2) times the occurrence limit. Such policy shall name the County, its agencies, districts, special districts and departments, and their respective directors, officers, elected or appointed officials, agents, employees and representatives, including, without limitation, the members of the Board of Supervisors, and all other Indemnitees, as "additional insureds" and contain a waiver of subrogation in favor of the County and all other such additional insureds.

.4 Property (Physical Damage). Contractor shall provide a policy of all-risk property insurance coverage for the full replacement value of all Contractor's equipment, improvements/alterations, temporary structures, and systems, including without limitation, items owned by others in the Contractor's care, custody or control, used on the Site or other County-owned property, or used in any way connected with the performance of the Work.

.5 Builder's All Risk (Course of Construction) Insurance. The Bid Form utilized by Contractor to prepare its Bid states whether the Contractor shall include Builder's All Risk (Course of Construction) Insurance for the Project. If the Bid Form states that such insurance shall be included by the Bidder in its Bid, then Contractor shall provide a policy of Builder's All Risk (Course of Construction) insurance coverage including (if the Work is located in an earthquake or flood zone or if required on financed or bond financing arrangements) coverage for earthquake and flood, covering the County, Contractor and every Subcontractor, of every Tier, for the entire Project, including property to be used in the construction of the Work while such property is at off-Site storage locations or while in transit or temporary off-Site storage. Such policy shall include, but not be limited to, coverage for fire, collapse, faulty workmanship, debris removal, expediting expense, fire department service charges, valuable papers and records, trees, grass, shrubbery and plants. If scaffolding, falsework and temporary buildings are insured separately by the Contractor or others, evidence of such separate coverage shall be provided to County prior to the start of the Work. Such policy shall be written on a completed value form. Such policy shall also provide coverage for temporary structures (on-Site offices, etc.), fixtures, machinery and equipment being installed as part of the Work. Contractor shall be responsible for any and all deductibles under such policy. Upon request by County, Contractor shall declare all terms, conditions, coverages and limits of such policy. NOTWITHSTANDING THE FOREGOING, COUNTY RETAINS THE RIGHT EXERCISED AT ANY TIME PRIOR TO AWARD TO ELECT TO USE ITS OWN BUILDER'S ALL RISK (COURSE OF CONSTRUCTION) INSURANCE and in the event County so elects to deduct the price for such insurance that is stated in Contractor's Bid, or if not so stated the amount included by Contractor for such insurance in the preparation of the Contractor's Bid, from the Contract Price by means of a Contract Adjustment pursuant to Change Order or Unilateral Change Order. If the County so provides the All Risk (Course of Construction) insurance for the Project, then Contractor shall assume the

cost of any and all applicable policy deductibles (currently, \$50,000 per occurrence) and shall insure its own machinery, equipment, tools, etc. from any loss of any nature whatsoever.

11.1.2 Other Mandatory Insurance Requirements. The Contractor shall comply with the following requirements, which shall be deemed applicable to all carriers and insurance policies provided pursuant to Paragraph 11.1.1, above:

.1 Insurer Rating. Any and all insurance carrier(s) providing insurance coverage under any and all policy(ies) of insurance provided by Contractor pursuant to Paragraph 11.1.1, above, shall be admitted to the State of California and have an A M BEST rating of not less than A: VIII (A:8) (unless such requirements are waived in writing by the County Risk Manager, and if the County's Risk Manager waives such requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term);

.2 Self Insured Retentions. Contractor shall advise County in writing the dollar amount of any "self insured retention" maintained by the Contractor that exceeds \$500,000 per occurrence. Each such self insured retention must have the prior written consent of the County Risk Manager before the commencement of any Work or operations or activities relating to the Work. If Contractor is notified that a self insured retention is unacceptable to the County, then at the election of the County, exercised in the County's sole and absolute discretion, by means of the written approval of the County's Risk Manager, the insurance carriers affected shall either: (1) reduce or eliminate such self-insured retention as respects the Construction Contract; or (2) procure a bond, satisfactory to County and approved by County in writing, which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

.3 Evidence of Insurance. Contractor shall cause Contractor's insurance carrier(s) to furnish to the County either: (1) properly executed original certificate(s) of insurance and certified original copy(ies) of endorsement(s) effecting the coverage(s) required by this Section 11.1, or (2) if requested to do so orally or in writing by the County Risk Manager, provide original, certified copy(ies) of policy(ies) including all endorsement(s) and all attachment(s) thereto, showing such insurance is in full force and effect. Such certificate(s) and all policies of insurance provided by Contractor pursuant to this Section 11.1 shall contain the covenant of the insurance carrier(s) that thirty (30) Days' written notice shall be given to the County prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. Each certificate of insurance and endorsement shall be signed by an individual expressly authorized by the insurance carrier to do so on the carrier's behalf. Contractor shall, if requested, provide written proof of such authorization. ***Contractor shall not commence any Work or any activities or operations related to the performance of the Work unless and until Contractor has complied with all of the requirements of this Section 11.1.***

.4 Modification, Cancellation, Changes in Limits. A material modification, cancellation, expiration, or reduction in coverage, shall constitute an Event of Contractor Default for which County shall have right, without limitation to its other rights or remedies provided for in the Contract Documents or under Applicable Laws, to terminate this Construction Contract. Such Event of Contractor Default may only be deemed cured if the County receives, prior to the effective date of such material modification, cancellation, expiration or reduction in coverage, properly executed original certificate(s) of insurance and original, certified copy(ies) of policy(ies) and endorsement(s), including all attachment(s) thereto, evidencing that the coverage(s) required by this Section 11.1 is(are) and will continue, without any gap in coverage, in full force and effect in accordance with all of the requirements of this Section 11.1

.5 Primary Coverage. It is understood and agreed to by County and Contractor that the Contractor's insurance coverage(s) provided under this Section 11.1 shall be construed as primary insurance, and the County's insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.

.6 Additional Coverages. County reserves the right to modify, adjust, add to and/or increase the types, amounts and terms of any insurance required under this Section 11.1 if the County Risk Manager determines, in the exercise of his/her sole and absolute discretion, that the type, amount or terms of the insurance required by this Section 11.1 has(have) become inadequate or that additional risk or exposure exists (such as, without limitation, the use of aircraft, watercraft, cranes, etc.) due to: (1) a Change in the Work; (2) the period of time of Contractor's actual

performance of the Work continuing for longer than five (5) years from the Date of Commencement, whether due to Contract Adjustment or for any for any other reason; or (3) other circumstances not reasonably foreseeable to County.

.7 Subcontractors. Contractor shall include provisions in its subcontracts requiring each Subcontractor to assume an obligation toward Contractor to furnish insurance that complies with all of the requirements of this Section 11.1 as apply to Contractor's insurance provided to Owner and requiring such Subcontractors to furthermore include provisions in their contracts with lower-Tier Subcontractors likewise requiring such lower Tier Subcontractors assume the same obligations for providing such insurance and for passing through all such obligations to all lower Tier Subcontractors.

.8 Self-Insurance. If approved by County, in the exercise of its sole and absolute discretion, the insurance requirements contained in this Section 11.1 may be met with a program(s) of self-insurance provided that such program has been submitted to County and approved in writing by County prior to commencement of the Work or of any activity or operation related to the performance of the Work.

.9 Notice of Claim. Contractor agrees to notify County of any claim by a third party or any incident or event that may give rise to a claim arising from the performance of the Work.

ARTICLE 12 BONDS

12.1 PERFORMANCE BOND AND PAYMENT BOND

12.1.1 Performance and Payment Bonds. Within ten (10) Days after the issuance of the Notice of Intent to Award and prior to commencing Work, Contractor shall deliver to County a good and sufficient labor and materials payment bond ("Payment Bond") and a good and sufficient performance bond ("Performance Bond"), each in the amount of one hundred percent (100%) of the Contract Price.

12.1.2 Changes. The penal amounts of the Performance Bond and Payment Bond shall be increased on account of Change Orders and Unilateral Change Orders increasing the Contract Price. If requested by County, Contractor shall deliver to County evidence of such increases.

12.1.3 Replacement. Should any bond required hereunder or any Surety on such bond become or be determined by County to be insufficient, it shall be replaced within ten (10) Days by a bond that fully complies with the requirements of this Section 12.1.

12.1.4 Duration. The Payment Bond shall remain in effect until Acceptance of the Work and all Claims of Contractor and the Subcontractors, of any Tier, have been fully and finally resolved. The Performance Bond shall remain in effect and assure faithful performance of all Contractor's obligations under the Contract Documents, including, without limitation, all warranty obligations.

12.1.5 Condition of Payment. No payments to Contractor for Work performed shall be made or due until there has been full compliance with the requirements of this Section 12.1.

12.1.6 Surety Rating. Any Surety company issuing the Payment Bond or Performance Bond shall be, at all times while such bond is in effect, an Admitted Surety. The Surety company issuing the Performance Bond shall additionally have at all such times a current A.M. Best rating of A VIII (A:8) or better.

12.1.7 Premiums. The premiums for the Performance Bond and Payment Bond are included in the Contract Price and shall be paid by Contractor at Contractor's Own Expense.

12.1.8 Obligee. The Performance Bond shall name County as obligee. All performance bonds, if any, purchased by Subcontractors shall name County as a dual obligee with Contractor.

12.1.9 No Exoneration. The Performance Bond and Payment Bond shall contain provisions to the effect that Changes, Change Orders, Unilateral Change Orders, Construction Change Directives, Modifications, Changes and

Contract Adjustments shall in no way release or exonerate Contractor or its Surety from their obligations and that notice thereof is waived by the Surety.

12.1.10 Communications. County shall have the right to communicate with Surety with respect to matters that are related to performance of the Work. Contractor shall be provided with a copy of all such communications that are in writing. Such communications shall not create or be interpreted as creating any contractual obligation of County to Surety.

12.1.11 No Limitation. The requirements of this Section 12.1 pertaining to the Performance Bond and the Payment Bond shall be without limitation to any other obligations Contractor may have under Applicable Laws to provide bonding for the benefit of, and to assure payment to the Subcontractors performing the Work for, the Project.

12.1.12 Subcontractor Bonds. Each performance bond, if any, furnished by a first-Tier Subcontractor shall include a provision whereby the Surety consents to the contingent assignment of Contractor's rights under such bond to County as provided in Section 5.3, above.

12.1.13 Claims. By incorporation of the Construction Contract into the Performance Bond issued by Surety, Surety shall be deemed, subject to the other terms of the Performance Bond, to be bound by all of the obligations assumed by Contractor under the Contract Documents, including, without limitation, bound by any determination, resolution, award or judgment entered or made upon any Claim by or against Contractor.

ARTICLE 13 UNCOVERING AND CORRECTION OF THE WORK

13.1 UNCOVERING OF THE WORK

If a portion of the Work is covered contrary to the request or direction of County or Inspector of Record, or contrary to the requirements of the Contract Documents, it must, if required by the any of them, be uncovered for observation and be re-covered by Contractor at Contractor's Own Expense.

13.2 CORRECTION OF THE WORK

Contractor shall promptly correct Defective Work, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. All such Defective Work shall be either: (1) replaced and all the Work disturbed thereby made good by Contractor at Contractor's Own Expense; or (2) County may exercise its option pursuant to Section 13.4, below, to accept such Work and adjust the Contract Price.

13.3 GUARANTEE TO REPAIR PERIOD

13.3.1 Guarantee To Repair Period. Besides guarantees and warranties required elsewhere in the Contract Documents, Contractor guarantees the Work as provided hereinbelow. The period of this guarantee, termed the "Guarantee To Repair Period," is for one (1) year commencing as follows:

.1 for any portion of the Work that, upon Substantial Completion of the overall Work, is fully and finally complete and usable in all respects independent of other portions of the Work that are not fully and finally complete, on the date of Substantial Completion of such portion of the Work;

.2 for space beneficially occupied or for separate systems fully utilized prior to Substantial Completion, from the first date of such beneficial occupancy or full utilization, as established by an appropriate written notice by County of intent to take beneficial occupancy; or

.3 for all Work other than that described in Subparagraph 13.3.1.1, above or Subparagraph 13.3.1.2, above, from the date of Final Completion of the Work.

13.3.2 Repair by Contractor. Subject to the provisions of Paragraph 13.3.3, below, Contractor shall do the following: (1) correct, repair, replace, remove and restore, to the County's satisfaction, any Defective Work that becomes

apparent during the progress of the Work or during the Guarantee To Repair Period; (2) correct, repair, replace, remove and restore, to the County's satisfaction, any other parts of the Work and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction of Defective Work; and (3) remove from the Site all the Work identified by the County as Defective Work, whether incorporated or not and whether discovered before or after Substantial or Final Completion. Ordinary wear and tear, abuse, or neglect by County or by County employees, its staff, visitors, public or others (except for those under the control or responsibility of Contractor or its Subcontractors) who are authorized or admitted by County to enter, use or occupy the Work, or who enter, use or occupy the Work after Final Completion, are excepted from the foregoing guarantee. All Losses resulting from Defective Work, including, without limitation, all costs of such correction, repair, replacement, removal and restoration, additional testing, inspection and additional service fees and costs of the Inspector of Record, County Consultants or others whose services may be made necessary thereby as well as any Loss to any other parts of the Work and any other real or personal property which is damaged or destroyed as a result of Defective Work or the correction, repair, replacement, removal or restoration of Defective Work, shall be paid for by Contractor at Contractor's Own Expense. Contractor shall correct, repair, replace, remove and restore Defective Work at such times as are acceptable to the County and in such a manner as to avoid, to the greatest extent practicable, disruption to the activities of the County, its staff, visitors, the public or others. Contractor shall notify the County in writing upon the completion of such correction, repair, replacement, removal and restoration.

13.3.3 Notice by County. Except as otherwise provided in this Paragraph 13.3.3 where immediate corrections are needed due to dangerous conditions or risk of imminent Loss or interruption of County operations, the County will give notice to Contractor of Defective Work observed prior to Final Completion in accordance with the provision of Section 15.1, below, governing the occurrence of an Event of Contractor Default and the Contractor shall proceed to cure such Event of Contractor Default in accordance with the requirements of Section 15.1, below, and Paragraph 13.3.2, above. With respect to Defective Work observed after Final Completion, the County will give notice to Contractor with reasonable promptness and Contractor shall commence the correction, repair, replacement, removal and restoration as required by Paragraph 13.3.2, above, no later than ten (10) Days after mailing of such notice to Contractor and Contractor shall thereupon diligently and continuously prosecute such correction, replacement, repair, or restoration to completion. Notwithstanding the foregoing, if in the County's opinion the presence of Defective Work, whether observed prior to Final Completion or after Final Completion and during the Guarantee To Repair Period, poses a risk or threat: (1) to life, safety or the protection of property; (2) of imminent Loss to the County or to any other person or entity; or (3) of causing an interruption in the operations of the County, then County will have the right, in the exercise of its sole and absolute discretion, to proceed with correction or replacement of the Defective Work without prior notice to Contractor, but in such cases will attempt to notify Contractor as soon as possible of the conditions encountered and the action taken by County. Such action by County without prior notice to Contractor shall not relieve Contractor of its responsibility for the costs of such County action or for any Loss occasioned by the Defective Work or necessitated by the County's action, whether such Loss occurs before or after such County action is implemented or completed.

13.3.4 Correction by County. If Contractor fails to perform any of its obligations under Paragraph 13.3.2, above, to correct, repair, replace, remove or restore then County, or Separate Contractors under the County's direction, may, notwithstanding any other provisions of this Article 13, proceed to do so and all costs associated therewith (including, without limitation, the cost to store any materials removed) shall be the responsibility of and paid by Contractor at Contractor's Own Expense. Such action by County will not relieve Contractor of the guarantees provided in this Article 13 or elsewhere in the Contract Documents. In addition to Contractor's other obligations under Paragraph 13.3.2, above, Contractor shall correct, repair, replace, remove and restore, to the County's satisfaction and at Contractor's Own Expense any other parts of the Work and any other real or personal property that are damaged or destroyed as a result of such actions by County or the Separate Contractors.

13.3.5 Sale. If Contractor does not pay the costs of, or any of the Losses associated with, the correction, repair, replacement, removal or restoration required by the provisions of Paragraph 13.3.2 through Paragraph 13.3.4, above, then within five (5) Days after notice by the County, County may sell any materials or other items of Work removed at auction or at private sale or otherwise dispose of such materials or items and shall account for the net proceeds thereof, after deducting all such costs and Losses, and all costs of sale. If such net proceeds of sale do not cover the Losses for which Contractor is liable to the County, the County may at its option reduce the Contract Price or any payments due to Contractor by such deficiency or recover such deficiency from Contractor.

13.3.6 No Limitation. Contractor's obligations under this Article 13 are in addition to, and not in limitation of, its warranty obligations under Section 3.5, above, and any other obligation, guaranty or warranty of Contractor or

any other third party under the Contract Documents. Nothing contained in this Article 13 shall be construed to shorten any periods of limitation with respect to other obligations of Contractor under the Contract Documents that are for longer specified periods. Establishment of the Guarantee To Repair Period in no way limits either Contractor's liability for Defective Work or the time within which proceedings may be commenced to enforce Contractor's obligations under the Contract Documents.

13.4 ACCEPTANCE OF NONCONFORMING WORK

Notwithstanding any other provisions of the Contract Documents to the contrary, the County shall have the option, exercised in its sole and absolute discretion after notice to Contractor, in lieu of requiring that Defective Work be remedied or corrected, to reduce the Contract Price to reflect the reduced value of the performance received by County. Such option shall be exercised solely by written notice to Contractor and shall not be implied from any act or omission by County. If there are no remaining payments of the Contract Price to be made to Contractor, or if the remaining payments and retention are insufficient to cover the amount of the reduction of the Contract Price, Contractor shall promptly pay to County the amount of any such deficiency.

ARTICLE 14 MISCELLANEOUS PROVISIONS

14.1 GOVERNING LAW

The interpretation and enforcement of the Construction Contract and other Contract Documents and of the performance by the parties thereunder shall, notwithstanding application of the principles of conflicts of laws, be governed by the laws of the State of California. The Superior Court for the County of Riverside shall have exclusive jurisdiction and venue over any legal proceedings arising out of or involving the interpretation or enforcement of, or other matters relating to, the Construction Contract, the other Contract Documents or the performance of the parties thereunder.

14.2 TIME OF ESSENCE

All time limits stated in the Contract Documents relative to Contractor's performance of its obligations under the Contract Documents are of the essence.

14.3 SUCCESSORS AND ASSIGNS

The Construction Contract and other Contract Documents shall be binding on successors, assigns and legal representatives of County and Contractor, respectively. Contractor shall not assign, sublet or transfer an interest in or claim under this Construction Contract without advance written approval of County, which approval may be granted or withheld by County in its sole and absolute discretion, and any assignment, subletting or transfer without written approval by County shall be deemed void from its inception. Any assignment, subletting or transfer, whether or not approved by County, will not release Contractor from any of its obligations under the Contract Documents to County. County shall have the right to assign, sublet or transfer its interest in or any claim under the Construction Contract upon written notice to Contractor.

14.4 WRITTEN NOTICE

Any notice from one party to the other or otherwise under the Contract Documents shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall be deemed to have been duly served if served in the following manner, and in accordance with Civil Code §8100 et seq.:

14.4.1 Notice to County. If notice is given to County: (1) by personal delivery thereof to County; or (2) by depositing same in United States mail, enclosed in a sealed envelope addressed to County at Facilities Management, 3133 Mission Inn Avenue, Riverside CA 92507, and to such other address as set forth in the Bidding Documents as the location for submission of Bids and sent by registered or certified mail with postage prepaid, or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in Code of Civil Procedure §415.20.

14.4.2 Notice to Contractor. If notice is given to Contractor: (1) by personal delivery thereof to Contractor; or (2) by depositing same in United States mails, enclosed in a sealed envelope addressed to Contractor at its address stated in the Construction Contract, or if none is so stated at the address on the records of the Contractor's State License Board and sent by registered or certified mail with postage prepaid or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in Code of Civil Procedure §415.20.

14.4.3 Notice to Claimant. If notice is given to a claimant as defined in Civil Code §8004: (1) by personal delivery thereof to claimant; or (2) by depositing same in United States mail, enclosed in a sealed envelope addressed to claimant at its address stated in: a preliminary notice, stop payment notice, or claim against a payment bond; or on the records of the Contractor's State License Board; and sent by registered or certified mail with postage prepaid or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in code of Civil Procedure §415.20.

14.4.4 Notice to Surety. If notice is given to the Surety: (1) by personal delivery to the Surety; or (2) by depositing same in United States mail, enclosed in a sealed envelope, addressed to the Surety at the address of the Surety shown in the applicable Performance Bond or Payment Bond, or if none is shown, the address on the records of the Department of Insurance, and sent by registered or certified mail with postage prepaid or express mail or overnight delivery by an express mail carrier; or (3) by leaving the notice and mailing a copy in the manner provided in Code of Civil Procedure §415.20.

14.5 RIGHTS AND REMEDIES

14.5.1 County Rights. Rights and remedies available to the County under the Contract Documents are in addition to and not a limitation of County's rights and remedies otherwise available under other provisions of the Contract Documents or Applicable Laws.

14.5.2 Writing Required. Provisions of the Contract Documents may be waived by County only in writing signed by the Director stating expressly that it is intended as a waiver of specified provisions of the Contract Documents.

14.5.3 Subsequent Breach. A waiver by either party of any breach of any term, covenant, or condition contained in the Contract Documents shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained therein whether of the same or a different character.

14.6 NO NUISANCE

Contractor shall not maintain, commit or permit the maintenance or commission of any nuisance in connection with the performance of Work.

14.7 EXTENT OF AGREEMENT

The Contract Documents represent the full and complete understanding of every kind or nature between the parties and all preliminary negotiations and prior representations, proposals and contracts, of whatever kind or nature, are merged herein and superseded hereby. No verbal agreement or implied covenant shall be held to vary the provisions of the Contract Documents. Any modification of this Construction Contract or the other Contract Documents will be effective only by written instrument signed by both County and Contractor and shall, if required by Applicable Laws, be formally approved or ratified by the Board of Supervisors.

14.8 NO THIRD-PARTY RIGHTS

Nothing contained in the Construction Contract or the other Contract Documents is intended to make any person or entity who is not a signatory to this Construction Contract a third-party beneficiary of any right of Contractor (including, without limitation, any right of Contractor to a benefit derived from, or to the enforcement of, an obligation assumed by County) that is expressly or impliedly created by the terms of the Contract Documents or by operation of Applicable Laws.

14.9 SEVERABILITY

Should any part, term, portion or provision of the Construction Contract or the other Contract Documents, or the application thereof to any party or circumstance, be held to be illegal, invalid or in conflict with Applicable Laws, or otherwise be rendered unenforceable or ineffectual, the validity of the remaining parts, terms, portions or provisions, or the application thereof to any other party or circumstances, shall be deemed severable and the same shall remain enforceable and valid to the fullest extent permitted by Applicable Laws.

14.10 PROVISIONS REQUIRED BY APPLICABLE LAWS

Each and every provision of law and clause required by Applicable Laws to be inserted in the Construction Contract or other Contract Documents shall be deemed to be inserted in the Contract Documents shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or if inserted and requires correction, then upon request of either party these General Conditions shall forthwith be amended by the parties to the Construction Contract to make such insertion or correction.

14.11 SURVIVAL

All provisions of the Contract Documents that either expressly, or by their nature, require performance or assumption by Contractor of an obligation that extends beyond termination of the Construction Contract or Final Completion of the Work, including, without limitation, Contractor's obligations of, or relating to, indemnification, insurance, ownership of documents, retention and audit of books and records, warranties and guaranties and resolution of Claims shall be deemed to survive either termination of the Construction Contract or Final Completion of the Work.

14.12 FEDERAL GRANTS

In the event of a federal grant or other federal financing participation in the funding of the Project, Contractor shall, as required in connection with, or as a condition to, such federal grant or other federal financing participation, permit access to and grant the right to examine its books covering its services performed and expenses incurred under the Construction Contract or other Contract Documents by the federal agency and comply with all applicable federal agency requirements including, without limitation, those pertaining to work hours, overtime compensation, non-discrimination, and contingent fees.

14.13 PROHIBITED INTERESTS

Contractor agrees not to accept any employment or representation which will, or is likely to, make Contractor "financially interested" (as provided in California Government Code §§1090 and 87100, hereinafter "financially interested") in any decision made by County on any matter in connection with which Contractor has been retained in connection with the Project. Without limitation to the foregoing, transactions and interests prohibited by this Section 14.13 include the following: (1) no official or employee of County who is authorized in such capacity and on behalf of County to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the Project, shall become directly or indirectly financially interested in the performance of the Construction Contract or in any part thereof; (2) no officer, employee, architect, attorney, engineer or inspector of or for County who is authorized in such capacity and on behalf of County to exercise any executive, supervisory or other similar functions in connection with Construction Contract or in any part thereof; and (3) Contractor shall receive no compensation hereunder, and shall repay County for any compensation received by Contractor hereunder, should Contractor or any of the Subcontractors aid, abet or knowingly participate in violation of this Section 14.13.

14.14 ASSIGNMENT OF ANTI-TRUST ACTIONS

California Public Contract Code §7103.5(b), which is hereby incorporated by this reference, provides:

"In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, contractor or the subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act, (15 U.S.C. Sec. 15) or under the

Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to Contractor, without further acknowledgement by the parties."

Contractor for itself and all the Subcontractors agrees to assign to County all rights, title and interest in and to all such causes of action Contractor and all the Subcontractors may have in connection with purchases related to or under the Contract Documents. This assignment shall become effective at the time County tenders Final Payment to Contractor, and Contractor shall require assignments from all the Subcontractors to comply herewith.

14.15 NO WAIVER

County's approval, acceptance, use or payment for any or part of Contractor's performance of the Work shall not in any way alter Contractor's obligations, or waive any of County's rights, under Contract Documents.

14.16 CONSENT TO PHOTOGRAPHING

Contractor is advised that County intends, from time to time, to take photographs, videotapes and/or motion pictures of the Work, and workers located on the Site and proximate settings. Contractor consents to the use of Contractor's name and likeness in instructional or training uses, news releases, advertising and/or publicity throughout the world in perpetuity, in all media now known or hereafter invented. Contractor shall include in its contracts with its Subcontractors a consent by the Subcontractor to the use of Subcontractor's name and the likenesses of its employees on the same terms as provided for herein applicable to such consent by Contractor.

ARTICLE 15 DEFAULT, TERMINATION AND SUSPENSION

15.1 COUNTY REMEDIES FOR DEFAULT

15.1.1 **Event of Default.** Each and any of the following shall be considered an Event of Contractor Default:

- .1 Contractor files a petition, or has filed against it a petition, for bankruptcy or is adjudged bankrupt;
- .2 Contractor makes a general assignment for the benefit of its creditors;
- .3 a receiver is appointed on account of Contractor's insolvency;
- .4 Contractor defaults, by failing or refusing to perform any material obligation set forth in the Construction Contract, General Conditions or elsewhere in the Contract Documents (including, without limitation, the performance or installation of Defective Work) and thereafter: if the default can be cured within three (3) Days, Contractor fails or refuses after commencing to cure to fully cure such default within three (3) Days after receipt of written notice of default; or (2) if the default cannot be fully cured within three (3) Days, Contractor fails after commencing to cure in to diligently and continuously prosecute and fully cure such default after receipt of such written notice;
- .5 Contractor fails or refuses to perform a material obligation set forth in the Construction Contract, General Conditions or other Contract Documents that cannot be cured;
- .6 a material breach of any other agreement between County and Contractor as provided in Paragraph 15.1.9, below; or
- .7 if Contractor was previously prequalified as a condition for its bidding the Project pursuant to a Prequalification conducted by County, Contractor's prequalification status has been revoked or cancelled due to any of the following: (1) receipt by County of new information indicating that a statement made in Contractor's Prequalification Submittal (as defined in the Prequalification Documents) was false or misleading; (2) ownership of 50% of more of the

stock or assets Contractor has changed; (3) if Contractor is a Project Joint Venture, its Principal Managing Partner (as those terms are defined in the Prequalification Documents) has ceased to function, or fully function, in the capacity of a Principal Managing Partner; or (4) Contractor has failed to comply with the requirements of the Prequalification Documents pertaining to minimum safety Prequalification requirements for Subcontractors.

15.1.2 County's Remedies. Without limitation to the County's other rights or remedies under the Contract Documents or Applicable Laws, if there is an Event of Contractor Default, County shall have the right to exercise any one or more of the following remedies:

.1 Take Over Work. County may, without terminating the Construction Contract and without incurring any additional liability or responsibility to Contractor (including, without limitation, any obligation to agree to a Contract Adjustment for any portion of the taken-over or non-taken-over Work), take over and perform, or engage others to perform, all or a portion of the Work.

.2 Suspend Work. County may, without terminating the Construction Contract and without incurring any additional liability or responsibility to Contractor (including, without limitation, any obligation to agree to a Contract Adjustment for any portion of the suspended or non-suspended Work), suspend Contractor's performance of all or a portion of the Work for as long a period of time as the County determines, in its sole discretion, is appropriate.

.3 Termination. County may, without incurring any additional liability or responsibility to Contractor, terminate the Construction Contract, the Work or any portion thereof.

.4 Surety. If there is an Event of Contractor Default pursuant to any of Subparagraphs 15.1.1.1 through 15.1.1.5, above, County may, with or without terminating the Construction Contract and without incurring any additional liability or responsibility to Contractor or Surety (including, without limitation, any obligation to agree to a Contract Adjustment), exercise its rights under the Performance Bond furnished by Contractor by giving Surety ten (10) Days' written notice of demand to perform; provided, however, that if the Surety fails, within seven (7) Days after receipt by Surety of written demand, to deliver to the County written notice of its unconditional intention to perform or does not commence performance of the Work within ten (10) Days from receipt of such notice of demand, the County may, at Contractor's Own Expense and/or the expense of the Surety, and with or without terminating the Construction Contract, proceed to complete the Work by any other means County deems expedient. By executing its Performance Bond incorporating the terms of the Construction Contract, Surety shall be deemed to have agreed, without limitation, to the provisions of this Paragraph 15.1.2 as constituting a binding obligation of Surety under its Performance Bond that shall control over any conflicting provisions set forth in the Performance Bond. Neither delivery by Surety of such written notice of unconditional intention to perform nor its timely performance of the Work in accordance with the terms of the Contract Documents and Performance Bond shall constitute waiver by Surety of any rights it may have under the Performance Bond and Applicable Laws to limit its liability to the penal amount of the Performance Bond.

15.1.3 Contractor Tools, Equipment. Upon County's exercise of one or more of its remedies following an Event of Contractor Default, County shall have the right, but not the obligation, to perform or complete all or any portion of the Work using any means that County may deem expedient, including, without limitation, taking possession and utilization of any or all of the materials, equipment, appliances, tools, plant and other property not owned by Contractor that are on the Site for County's use in performing the Work.

15.1.4 Contractor Obligations. Upon exercise by County of its remedies following an Event of Contractor Default, Contractor shall, unless County directs in writing otherwise, do the following:

.1 immediately discontinue performance of the Work to the extent specified in writing by County;

.2 remove no materials, equipment or tools (other than those owned by Contractor and not necessary for performance of a portion of the Work not terminated or discontinued) from the Site unless directed to do so by County and take all actions necessary or appropriate, or that the County may direct in writing, for the protection and preservation of the Work, any materials, equipment or tools at the Site and any materials or equipment in transit to the Site;

.3 place no further orders or subcontracts for materials, equipment, services or facilities, except as may be necessary for Contractor to continue performance of such portion, if any, of the Work that is not discontinued or terminated by County in its written notice;

.4 provide to the County, in writing, no later than two (2) Days after request by County, a statement listing or providing: (1) all subcontract agreements, purchase orders and contracts that are outstanding, as well as any change orders, amendments and modifications thereto; (2) the status of invoicing, payments and balance owing under each such subcontract agreement, purchase order and contract; (3) the status of performance and any claims asserted under each such subcontract agreement, purchase order and contract; and (4) providing such other information as the County may determine to be necessary in order to decide whether to accept assignment of any such subcontract agreement, purchase order or contract;

.5 promptly following and in accordance with County's written direction: (1) assign to the County or its designee those subcontract agreements, purchase orders or contracts, or portions thereof, that the County elects in writing to accept by assignment; (2) cancel, on the most favorable terms reasonably possible, any subcontract agreement, purchase order or contract, or portion thereof, that the County does not elect to accept by assignment; and (3) if requested by County, settle, with the prior written approval of County of the terms of settlement, outstanding liabilities to Subcontractors with respect to the Work terminated or discontinued;

6. not terminate any insurance required by the Contract Documents;

7. thereafter continue only such performance as may be directed by County;

8. deliver to the County the documents required to delivered pursuant to Paragraph 1.3.6, above;

and

9. at the written request and option of County, exercised in its sole discretion, deliver to the County, and transfer title to the County of, any completed items, materials, products, equipment or other unincorporated parts of the Work that have not been previously delivered to the Site.

15.1.5 Accounting and Payment

.1 Full Termination or Discontinuance.

(1) **Further Payment.** In the event an exercise by County of any of its remedies following an Event of Contractor Default results in a termination or discontinuance of the entire Work, then no further payment shall be due to Contractor for the Work until an accounting has been conducted in accordance with this Paragraph 15.1.5.

(2) **Time for Accounting.** Within forty-five (45) Days after Final Completion of the Work by Contractor, Surety, County or others at request of County, an accounting shall be made pursuant to this Paragraph 15.1.5 of the amount due to Contractor or County.

(3) **Payment Amount.** If, based on the accounting conducted pursuant to this Paragraph 15.1.5, the Contractor Amount exceeds the County Amount, then the difference shall be paid by County to Contractor within fifteen (15) Days after demand by Contractor following completion of such accounting. If the County Amount exceeds the Contractor Amount, then the difference shall be paid by Contractor to County within fifteen (15) Days after demand by County following completion of such accounting. Payment by Contractor of the amount due to County pursuant to such accounting shall not be construed as a release of Contractor's obligation to County for, or County's right to recover from Contractor, any Losses, of any kind whatsoever, not part of the calculation of the County Amount (including, without limitation, additional Losses related to circumstances that formed the basis for calculation of the County Amount) that may be then or thereafter owing to or recoverable by County under Applicable Laws or the Contract Documents.

(4) **Contractor Amount.** The Contractor Amount used as the basis for payment pursuant to the accounting under this Paragraph 15.1.5 shall be calculated as follows:

(a) take a portion of the Contract Price determined by multiplying (i) the Contract Price, by (ii) the County's Good Faith Determination of the percentage of the Work properly performed by Contractor and (A) in permanent place, (B) previously fabricated and delivered to the Site or (C) fabricated and en route for delivery to the Site and delivered to the Site within a reasonable time after Contractor's receipt of such written notice; and

(b) subtract therefrom all amounts previously paid by County to Contractor or to Subcontractors.

(5) **County Amount.** The County Amount used as the basis for payment pursuant to the accounting under this Paragraph 15.1.5 shall be calculated based on the sum of all past, present and future Losses to County resulting or reasonably certain to result, directly or indirectly, from any or all of the following: (a) any negligence, willful misconduct, or Defective Work on the part of Contractor or any Subcontractor; (b) any Event of Contractor Default, whether or not constituting the basis of the County's termination or discontinuance; (c) the County's exercise of its rights and remedies under and in accordance with the Contract Documents or Applicable Laws following the occurrence of an Event of Contractor Default; and (d) the payment by County of amounts to Contractor or any Subcontractor that were not owing to Contractor or that were in excess of the amount to which Contractor was entitled under the Contract Documents.

.2 Partial Termination or Discontinuance. In the event an exercise by County of its remedies for an Event of Contractor Default results in a discontinuance or termination of only a portion of the Work, then the Contract Price and Contract Time shall be adjusted under the provisions of Article 7 and Article 8, above, applicable to Deleted Work. Contractor shall thereafter continue to be paid for its performance of the other portions of the Work in accordance with the terms of the Contract Documents, less any amounts that County is entitled to withhold under the terms of the Contract Documents.

.3 Exclusive Compensation. Contractor agrees to accept such amounts, if any, as allowed under this Paragraph 15.1.5 as its sole and exclusive compensation in the event of an exercise by County of its remedies permitted by the Contract Documents or Applicable Laws following an Event of Contractor Default.

15.1.6 Surety. Without limitation to any of the County's other rights or remedies under a Performance Bond furnished by Contractor, Contract Documents or Applicable Laws, the County has the right to suspend, take over or terminate the performance of the Work by Surety in the event of any of the following: (1) failure of Surety or its contractors to begin the Work within a reasonable time in such manner as to ensure full compliance with the Contract Documents within the Contract Time; (2) abandonment of the Work by Surety or its contractors; (3) if at any time the County makes a Good Faith Determination that the Work is unnecessarily or unreasonably delayed by Surety or its contractors; (4) violation by Surety or its contractors of any terms of the Contract Documents, Performance Bond or Applicable Laws; or (5) failure by Surety or its contractors to follow instructions of the County for performance of the Work or for performance of the Work within the Contract Time. By executing its Performance Bond incorporating the terms of the Construction Contract, Surety shall be deemed to have agreed, without limitation, to the provisions of this Paragraph 15.1.6 as constituting a binding obligation of Surety under its Performance Bond that shall control over any conflicting provisions set forth in the Performance Bond.

15.1.7 Conversion. In the event a termination for cause by the County is adjudged by a court or by binding arbitration conducted in accordance with the Contract Documents to have been wrongful, such termination shall be deemed converted to a termination for convenience pursuant to Section 15.3, below, in which case Contractor agrees to accept such amount, if any, as permitted by Paragraph 15.3.3, below, as its sole and exclusive compensation and agrees to waive any right to recovery of any other compensation or Loss, including, but not limited to, loss of anticipated profits, loss of revenue, lost opportunity or other consequential, direct, indirect or incidental damages, of any kind.

15.1.8 Substantial Performance Waived. Intentionally omitted.

15.1.9 Cross Default. Contractor agrees that a breach of any other agreement between Contractor and County, whether related or unrelated to the Project, that is not cured in accordance with the terms of such other agreement constitutes an Event of Contractor Default under the Construction Contract, thereby entitling County to assert all its rights and remedies hereunder including, but not limited to, a specific right of off set by County against any amounts otherwise payable to Contractor under the Construction Contract or any other agreement between Contractor and County.

15.1.10 Rights Cumulative. All of County's rights and remedies under the Contract Documents are cumulative, and shall be in addition to and not a limitation upon those rights and remedies available under Applicable Laws.

15.1.11 Materiality. Intentionally omitted.

15.1.12 County Action. No termination or action taken by County after termination shall prejudice any rights or remedies of County provided by Applicable Laws or by the Contract Documents, including, without limitation, the right of County to proceed against Contractor to recover all Losses suffered by reason of Contractor's default.

15.2 SUSPENSION BY COUNTY FOR CONVENIENCE

15.2.1 Suspension Order. Without limitation to the County's rights under Section 15.1, above, County may, at any time, for its convenience and without the occurrence of any Event of Contractor Default, order Contractor, in writing, to suspend, delay or interrupt performance of the Work, in whole or in part. Upon receipt of such an order, Contractor shall comply with its terms and take all reasonable steps to minimize additional costs that are incurred applicable to the portion of the Work suspended, delayed or interrupted by County.

15.2.2 Resumption. If an order issued by the County pursuant to this Section 15.2 is canceled or expires, Contractor shall resume and continue with the previously affected portion of the Work. In such event, Contractor shall be entitled to a Contract Adjustment for additional Allowable Costs necessarily caused by such order and compensation allowed under Section 4.4 of the Construction Contract for Compensable Delay; provided, however, that no such Contract Adjustment shall be made: (1) to the extent that performance either is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor or any of the Subcontractors is responsible or for which Contractor would not be entitled to a Contract Adjustment; or (2) to the extent that a Contract Adjustment on account thereof is made or denied under another provision of the Contract Documents.

15.2.3 Limitation. The provisions of this Section 15.2 shall not apply unless a written order is issued by County pursuant to this Section 15.2.

15.3 TERMINATION BY COUNTY FOR CONVENIENCE

15.3.1 Right to Terminate for Convenience. Without limitation upon any of County's other rights or remedies under the Contract Documents or Applicable Laws, County shall have the option, at its sole discretion and without the occurrence of any Event of Contractor Default or any other cause, to terminate the Construction Contract or Work, in whole or in part, for its convenience by giving five (5) Days written notice to Contractor.

15.3.2 Contractor Obligations. Upon receipt of notice of termination for convenience pursuant to this Section 15.3, Contractor shall, unless such notice directs otherwise, comply with all of the provisions of Paragraph 15.1.4, above.

15.3.3 Contractor Compensation. Following a termination for convenience pursuant to this Section 15.3 and within sixty (60) Days after receipt of a complete and timely Application for Payment from Contractor, an accounting shall be conducted in accordance with the process set forth in Paragraph 15.1.5, above. In such event, the amount due to Contractor shall be the Contractor Amount as calculated in the same manner provided for in Paragraph 15.1.5, above, except that there shall be added to the calculation of the Contractor Amount an amount for: (1) the reasonable, actual and direct Allowable Costs incurred and paid by Contractor (and not by Subcontractors) for (a) demobilizing Contractor's facilities from the Site, and (b) Contractor's administering the close out of its participation in the Project for a period of no longer than fifteen (15) Days; plus (2) a markup to Contractor on the Contractor's Allowable Costs incurred under Clause (1) of this Paragraph 15.3.4 that is based on the percentage for Allowable Markup that Contractor is permitted to charge pursuant to Article 7, above, for Compensable Changes involving Extra Work that is Self-Performed Work.

15.3.4 Exclusive Compensation. Contractor agrees to accept the compensation allowed under Paragraph 15.3.3, above, as its sole and exclusive compensation in the event of a termination by County for convenience and waives any claim for Loss related to County's termination for convenience, including, but not limited to, loss of anticipated profits, loss of revenue, lost opportunity, or other consequential, direct, indirect, or incidental damages, of any kind.

15.3.5 **Subcontractors.** Contractor shall include provisions in all of its subcontracts, purchase orders and other contracts with the Subcontractors permitting termination for convenience by Contractor on terms that are consistent with, and that afford no greater rights of recovery against Contractor for termination than are afforded to Contractor under, this Section 15.3.

15.4 **TERMINATION BY CONTRACTOR**

15.4.1 **Contractor's Remedies.** Subject to the provisions of Paragraph 15.4.2, below and Paragraph 15.4.3, below, Contractor's sole right to terminate the Construction Contract shall be its right to terminate, for cause only, upon the occurrence of either of the following:

.1 the entire Work is stopped for one hundred sixty (160) consecutive Days, through no act or fault of Contractor or any of the Subcontractors, of any Tier, or any employee or agent of any of them, due to issuance of an order of a court or other Governmental Authority or due to a declaration of a national emergency making material unavailable; or

.2 the entire Work is suspended by Contractor, in accordance with a proper exercise by Contractor of its rights under Section 9.8, above, for a continuous period of thirty (30) Days.

15.4.2 **Notice of Intention to Terminate.** If one of the reasons to terminate as described in Paragraph 15.4.1, above, exists, Contractor may, upon thirty (30) Days written notice to County, terminate the Construction Contract and recover from County as its sole and exclusive compensation such sums as are permitted under Paragraph 15.3.3, above.

15.4.3 **Continuous Performance.** Provided that Contractor is paid undisputed sums due in accordance with the requirements of the Construction Contract, Contractor shall not stop, delay or interrupt continuous performance of the Work by reason of any dispute or disagreement with County, including, without limitation, any disputes or disagreements over payments of money claimed due under the Contract Documents.

15.5 **WARRANTIES**

All obligations of Contractor and the Subcontractors under the Contract Documents with respect to warranties and guarantees of the Work will continue in force and shall apply, notwithstanding a termination or other discontinuance of the Work by County or Contractor pursuant to an exercise of rights by either under this Article 15, to any portion of the Work that at the time of such termination or discontinuance has been completed or partially completed by Contractor to the point that it is substantially ready (exclusive of any incidental work that may be needed to connect such portion to other Work to other Work or Existing Improvements or to energize such portion of the Work for operation) for use or occupancy by County.

ARTICLE 16 NON-DISCRIMINATION

16.1 **NON-DISCRIMINATION IN SERVICES**

16.1.1 Contractor must, in accordance with Applicable Laws, not discriminate in the provision of services hereunder because of race, color, religion, national origin, ancestry, sex, age, sexual orientation, marital status, AIDS or disability. For the purpose of this Section 16.1, discrimination in the provision of services may include, but is not limited to the following:

- .1 denying any person any service or benefit or the availability of a facility;
- .2 providing any service or benefit to any person which is not equivalent to, or is in a non-equivalent manner or at a non-equivalent time from, that provided to others;
- .3 subjecting any person to segregation or separate treatment in any manner related to the receipt of any service;

.4 restricting any person in any way in the enjoyment of any advantage or privilege enjoyed by others receiving any service or benefit; or

.5 treating any person differently from others in determining admission, enrollment, eligibility, membership, or any other requirement or condition which persons must meet in order to be provided any service or benefit.

16.1.2 Contractor shall ensure that services are provided without regard to race, color, religion, national origin, ancestry, sex, age, sexual orientation, marital status, AIDS or disability.

16.1.3 Contractor shall establish and maintain written procedures under which any person applying for, performing or receiving services hereunder, may seek resolution from Contractor of a complaint with respect to any alleged discrimination. Such persons shall be advised by Contractor of these procedures. A copy of such procedures shall be posted by Contractor in a conspicuous place, available and open to the public, in each of Contractor's facilities where services are provided hereunder.

16.2 NON-DISCRIMINATION IN EMPLOYMENT

Contractor must, in accordance with Applicable Laws, not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, sex, age, sexual orientation, marital status, AIDS or disability. Without limitation to any other provisions of this Section 16.2, in the performance of the obligations under the Contract Documents, Contractor and the Subcontractors shall comply with all applicable provisions of the California Fair Employment Practices Act (California Government Code §§12940-48) and the applicable equal employment provisions of the Civil Rights Act of 1964 (42 U.S.C. §§200e - 217), whichever is more restrictive. Contractor and the Subcontractors shall ensure that qualified applicants are employed and that employees are treated during employment without regard to race, color, religion, national origin, ancestry, sex, age, sexual orientation, marital status, AIDS or disability, in accordance with requirements of Applicable Laws. Such shall include, but not be limited to, the following:

.1 employment, promotion, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; or

.2 selection for training, including apprenticeship.

16.2.1 Contractor agrees to post in conspicuous places in each of Contractor's facilities providing services hereunder, available and open to employees and applicants for employment, notices setting forth the provisions of this Section 16.2.

16.2.2 Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, ancestry, sex, age, sexual orientation, marital status, AIDS or disability, in accordance with requirements of Applicable Laws.

16.2.3 Contractor shall send to each labor union, or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or the workers' representative of Contractor's commitments under this Section 16.2.

16.2.4 Contractor certifies and agrees that it will deal with the Subcontractors, bidders and vendors without regard to race, color, religion, national origin, ancestry, sex, age, sexual orientation, marital status, AIDS or disability, in accordance with the requirements of Applicable Laws.

16.2.5 In accordance with Applicable Laws, Contractor shall allow duly authorized representatives of the County, State, and Federal government access to its employment records during regular business hours in order to verify compliance with the provisions of this Section 16.2. Contractor shall provide such other information and records as such representatives may require in order to verify compliance with the provisions of this Section 16.2.

16.2.6 If County finds that any of the provisions of this Section 16.2 have been violated by Contractor or any of the Subcontractors, such violation shall constitute a material breach of the Construction Contract for which County may cancel, terminate or suspend the Construction Contract. While County reserves the right to determine independently that the anti-discrimination provisions of the Construction Contract have been violated, a determination by the California Fair Employment and Housing Commission or the Federal Equal Employment Opportunity Commission that Contractor or the Subcontractor has violated State or Federal anti-discrimination laws shall constitute a finding by County that Contractor or the Subcontractor has violated the provisions of this Section 16.2.

16.2.7 Contractor hereby agrees that it will comply with §504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794) and similar Applicable Laws relating to employment of or access to persons with disabilities, all requirements imposed by applicable Federal Regulations, and all guidelines and interpretations issued pursuant thereto, to the end that no qualified disabled person shall, on the basis of disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity of Contractor receiving Federal Financial Assistance.

END OF GENERAL CONDITIONS

Exhibit C-1 PERFORMANCE BOND
(100% of Contract Price)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") for the County of Riverside, ("County") and Tilden-Coil Constructors, Inc., ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**RIVERSIDE COUNTY FIRE STATION 41 NORTH SHORE AND FIRE STATION 49 LAKE
TAMARISK (FM08270011226)**

("Contract") which Contract dated as of the date of the last signature on the signature page and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Contract and by California Public Contract Code section 20129(b) to furnish a bond for the faithful performance of the Contract.

NOW, THEREFORE, we, the Principal, and Great American Insurance Company ("Surety"), an admitted surety insurer pursuant to code of Civil Procedure, Section 995.120, are held and firmly bound unto the County in the penal sum of Eight Million One Hundred Forty Thousand DOLLARS (\$8,140,000), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the County all damages the County incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the County, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the County from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the County's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Principal shall be, and is declared by County to be, in default under the Contract, the Surety shall promptly either remedy the default, or, if the Contract is terminated by County or the Principal's performance of the Work is discontinued, Surety shall promptly complete the Contract

through its agents or independent contractors, subject to acceptance of such agents or independent contractors by County as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract (including, without limitation, all obligations with respect to payment of liquidated damages) subject to the penal amount of this bond as set forth above.

If County determines that completion of the Contract by Surety or its agents or independent contractors must be performed by a lowest responsible bidder selected pursuant to a competitive bidding process, then Surety shall comply with such processes in accordance with the requirements of County and applicable laws. Unless otherwise approved by County, in the exercise of its sole and absolute discretion, Surety shall not utilize Principal in completing performance of the Work.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, joint and severally, or against any one or more of them or against less than all of them, without impairing County's rights against the others.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 27th day of September, 2021.

(Affix Corporate Seal)

Tilden-Coil Constructors, Inc.
Principal

By

Great American Insurance Company
Surety

By Spencer Flake / Attorney-in-Fact

Culbertson Insurance Services, Inc.
Name of California Agent of Surety
5500 E. Santa Ana Canyon Road Suite 201
Anaheim, CA 92807

Address of California Agent of Surety

(714) 921-0530

Telephone Number of California Agent of Surety

Bidder must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

County of Orange }

On 9/27/21 before me, Lexie Sherwood, Notary Public,
Date Insert Name of Notary exactly as it appears on the official seal

personally appeared Spencer Flake

Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature

Lexie Sherwood
Signature of Notary Public Lexie Sherwood



Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of the form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

**RIGHT THUMBPRINT
OF SIGNER**

Top of thumb here

Signer is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

**RIGHT THUMBPRINT
OF SIGNER**

Top of thumb here

Signer is Representing: _____

GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than **FIVE**

No. 0 20942

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
DAVID L. CULBERTSON	HEATHER WILLIS	ALL
CHARLES L. FLAKE	LEXIE SHERWOOD	\$100,000,000.00
SPENCER FLAKE	ANAHEIM, CALIFORNIA	

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 8TH day of SEPTEMBER 2020

Attest

GREAT AMERICAN INSURANCE COMPANY



Handwritten signature of Heather Willis

Assistant Secretary

Handwritten signature of Mark Vicario

Divisional Senior Vice President

MARK VICARIO (877-377-2405)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this 8TH day of SEPTEMBER, 2020, before me personally appeared MARK VICARIO, to me known,

being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

Handwritten signature of Susan A Kohorst

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 27th day of September, 2021



Handwritten signature of Stephen C. Beraha

Assistant Secretary

Nº 3597

STATE OF CALIFORNIA
DEPARTMENT OF INSURANCE
SAN FRANCISCO

AMENDED

Certificate of Authority

THIS IS TO CERTIFY, That, pursuant to the Insurance Code of the State of California,

GREAT AMERICAN INSURANCE COMPANY

of CINCINNATI, OHIO, organized under the laws of OHIO, subject to its Articles of Incorporation or other fundamental organizational documents, is hereby authorized to transact within this State, subject to all provisions of this Certificate, the following classes of insurance: FIRE, MARINE, SURETY, DISABILITY, PLATE GLASS, LIABILITY, WORKERS' COMPENSATION, COMMON CARRIER LIABILITY, BOILER AND MACHINERY, BURGLARY, CREDIT, SPRINKLER, TEAM AND VEHICLE, AUTOMOBILE, AIRCRAFT and MISCELLANEOUS as such classes are now or may hereafter be defined in the Insurance Laws of the State of California.

THIS CERTIFICATE is expressly conditioned upon the holder hereof now and hereafter being in full compliance with all, and not in violation of any, of the applicable laws and lawful requirements made under authority of the laws of the State of California as long as such laws or requirements are in effect and applicable, and as such laws and requirements now are, or may hereafter be changed or amended.

IN WITNESS WHEREOF, effective as of the 6th day of December, 1976, I have hereunto set my hand and caused my official seal to be affixed this 6th day of December, 1976.



WESLEY J. KINDER
Insurance Commissioner

John J. Faber
JOHN J. FABER
Deputy

By

NOTICE: Qualification with the Secretary of State must be accomplished as required by the California Corporations Code promptly after issuance of this Certificate of Authority. Failure to do so will be a violation of Ins. Code Sec. 701 and will be grounds for revoking this Certificate of Authority pursuant to the covenants made in the application therefor and the conditions contained herein.

**Exhibit C-2 PAYMENT BOND
Contractor's Labor & Material Bond
(100% of Contract Price)**

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the County of Riverside, ("County") and Tilden-Coil Constructors, Inc., ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

**RIVERSIDE COUNTY FIRE STATION 41 NORTH SHORE AND FIRE STATION 49 LAKE
TAMARISK (FM08270011226)**

("Contract") which Contract dated as of the date of the last signature on the signature page and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and Great American Insurance Company, ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of Eight Million One Hundred Forty Thousand DOLLARS (\$8,140,000), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Contract or the specifications accompanying the

same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the 27th day of September, 2021.

(Affix Corporate Seal)

Tilden-Coil Constructors, Inc.
Principal

By 

Great American Insurance Company
Surety


By Spencer Flake / Attorney-in-Fact

Culbertson Insurance Services, Inc.
Name of California Agent of Surety
5500 E. Santa Ana Canyon Road Suite 201
Anaheim, CA 92807
Address of California Agent of Surety

(714) 921-0530
Telephone Number of California Agent of Surety

Bidder must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

County of Orange }

On 9/27/21 before me, Lexie Sherwood, Notary Public,
Date Insert Name of Notary exactly as it appears on the official seal

personally appeared Spencer Flake
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Lexie Sherwood
Signature of Notary Public Lexie Sherwood



Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of the form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

**RIGHT THUMBPRINT
OF SIGNER**

Top of thumb here

Signer is Representing:

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

**RIGHT THUMBPRINT
OF SIGNER**

Top of thumb here

Signer is Representing:

LAKE SHIRAZ
LAKE SHIRAZ
LAKE SHIRAZ
LAKE SHIRAZ
LAKE SHIRAZ



GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than **FIVE**

No. 0 20942

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
DAVID L. CULBERTSON HEATHER WILLIS	ALL OF	ALL
CHARLES L. FLAKE LEXIE SHERWOOD	ANAHEIM,	\$100,000,000.00
SPENCER FLAKE	CALIFORNIA	

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this **8TH** day of **SEPTEMBER**, 2020

Attest

GREAT AMERICAN INSURANCE COMPANY



Atty L C. B.

Assistant Secretary

Mark V Vicario

Divisional Senior Vice President

MARK VICARIO (877-377-2405)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this **8TH** day of **SEPTEMBER**

, 2020, before me personally appeared MARK VICARIO, to me known,

being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

Susan A Kohorst

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this **27th** day of **September**, 2021



Atty L C. B.

Assistant Secretary

Nº 3597

STATE OF CALIFORNIA
DEPARTMENT OF INSURANCE
SAN FRANCISCO

AMENDED

Certificate of Authority

THIS IS TO CERTIFY, That, pursuant to the Insurance Code of the State of California,

GREAT AMERICAN INSURANCE COMPANY

of CINCINNATI, OHIO, organized under the laws of OHIO, subject to its Articles of Incorporation or other fundamental organizational documents, is hereby authorized to transact within this State, subject to all provisions of this Certificate, the following classes of insurance: FIRE, MARINE, SURETY, DISABILITY, PLATE GLASS, LIABILITY, WORKERS' COMPENSATION, COMMON CARRIER LIABILITY, BOILER AND MACHINERY, BURGLARY, CREDIT, SPRINKLER, TEAM AND VEHICLE, AUTOMOBILE, AIRCRAFT and MISCELLANEOUS as such classes are now or may hereafter be defined in the Insurance Laws of the State of California.

THIS CERTIFICATE is expressly conditioned upon the holder hereof now and hereafter being in full compliance with all, and not in violation of any, of the applicable laws and lawful requirements made under authority of the laws of the State of California as long as such laws or requirements are in effect and applicable, and as such laws and requirements now are, or may hereafter be changed or amended.

IN WITNESS WHEREOF, effective as of the 5th day of December, 1976, I have hereunto set my hand and caused my official seal to be affixed this 5th day of December, 1976.



WESLEY J. KINDER
Insurance Commissioner
John J. Faber
JOHN J. FABER
Deputy

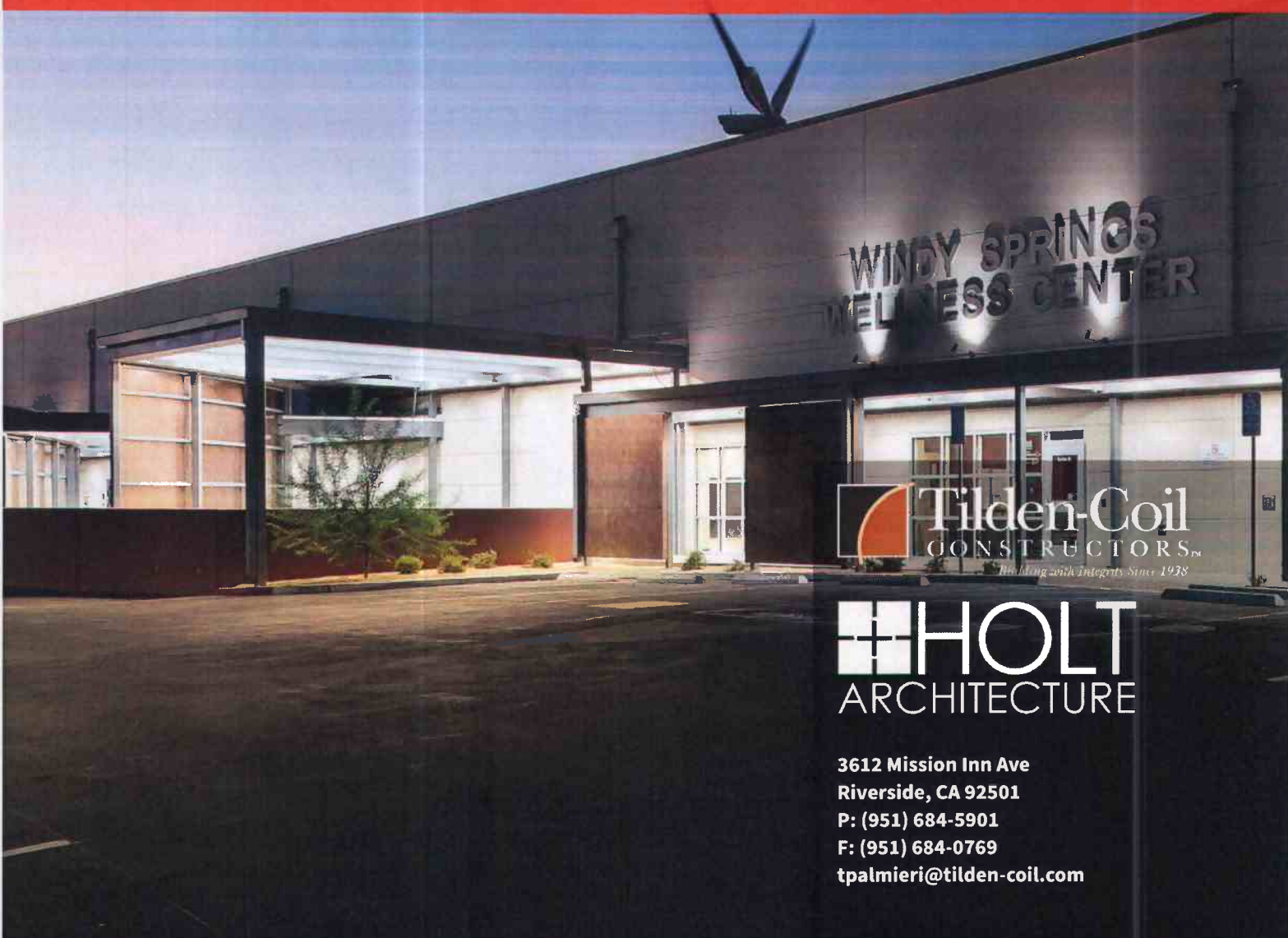
By

NOTICE
Qualification with the Secretary of State must be accomplished as required by the California Corporations Code promptly after issuance of this Certificate of Authority. Failure to do so will be a violation of Ins. Code Sec. 701 and will be grounds for revoking this Certificate of Authority pursuant to the covenants made in the application therefor and the conditions contained herein.

EXHIBIT D-1

RIVERSIDE COUNTY MODULAR FIRE STATION 41 NORTH SHORE & FIRE STATION 49 LAKE TAMARISK

Tilden-Coil Constructors / Holt Architecture
Pre-Requisite Information & Team Qualifications



 **Tilden-Coil**
CONSTRUCTORS™
Building with Integrity Since 1938

 **HOLT**
ARCHITECTURE

3612 Mission Inn Ave
Riverside, CA 92501
P: (951) 684-5901
F: (951) 684-0769
tpalmieri@tilden-coil.com

Tilden-Coil Constructors, Inc. / Holt Architecture

PRE-REQUISITE INFORMATION, TEAM QUALIFICATIONS, & PROJECT PROPOSAL

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Fee Proposal included in a separate PDF.



June 15, 2021

Dominick Lombardi, Project Manager
County of Riverside
Facilities Management Department
3133 Mission Inn Avenue
Riverside, CA 92507

Re: Design-Build Proposal for Riverside County Fire Station 41 North Shore and Fire Station 49 Lake Tamarisk

Dear Mr. Lombardi,

We are excited about the opportunity to serve the County of Riverside and the Riverside County Fire Department on these two upcoming fire stations. We understand the importance of these new facilities and the impact they will have on Fire Department and the community that they serve.

We have assembled a team of experts in the planning, design and construction of fire stations and public safety type projects. Tilden-Coil and Holt Architecture have partnered on 12 projects over the last 15 years including the City of Indio Public Safety Campus, which includes a new fire station and police station serving the residents of Indio. Together, our team has completed over 160 projects for the County of Riverside, all successful and with a high degree of quality that is expected by the County.

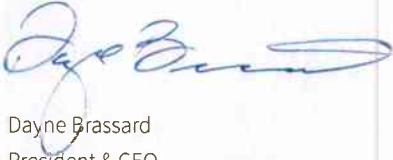
In addition to our experience working with the County and working successfully together, our team offers the following unique advantages on this project:

- **Head Start.** Holt Architecture has previously designed and received County approval, for a similar fire station in North Shore. Holt Architecture has collaborated with the County Fire Department and thoroughly understands Fire Department needs and expectations, which allows our design team to develop the most value-driven design. This knowledge will be used to expedite the design phase by eliminating the learning curve associated with a new design team learning end user needs. In addition, if the previous design by Holt Architecture is selected as the design for one or both upcoming projects our team can offer a reduced design phase services fee and reduce the overall delivery time of the project by at least 1-2 months.
- **Flexibility.** Our team is prepared to serve the County with the method of construction determined to be the best fit. We have an exclusive partnership with Silver Creek Industries, the local leader in providing public modular buildings, should this method be selected by the County. Alternatively, our team is prepared to deliver the project through a traditional construction approach or even a combination approach where one site is modular while the other is traditional. Our goal is to provide flexibility so the County receives the best value solution.
- **Local Advantage.** Our core design-build team comprised of Tilden Coil, Holt Architecture and Silver Creek Industries are entirely local with offices in Riverside, Palm Desert and Perris. Our team has experience working within the desert region of the County and we have a local subcontractor base that will enable for a more competitive price on bid day. The local advantage equates to better bid results, more accountability and a higher level of service.

You will find that our Design-Build team has the right mix of experience, longevity, local reputation and capable staff to successfully serve your team on these upcoming projects. I encourage you to contact our references to learn more about our performance, and more importantly, what makes our team different.

We look forward to continuing a relationship with the County of Riverside through earned confidence, trust and delivering on all dimensions of success that your projects demand.

Sincerely,



Dayne Brassard
President & CEO

Tilden-Coil Constructors, Inc.
Building with Integrity Since 1938

County of Riverside
Roy's Desert Resource Center Remodel
Tilden-Coil Constructors / Holt Architecture





Respondent Information

Entity Name:

Tilden-Coil Constructors, Inc.

Main Point of Contact:

Dayne Brassard, President & CEO

Business Address:

3612 Mission Inn Avenue, Riverside, CA 92501

Contact:

P: (951) 684-5901

C: (951) 712-3410

dbrassard@tilden-coil.com

Type of Entity:

Corporation

*A copy of our corporate documentation is provided in the Appendix.

List of Shareholders:

- Dayne Brassard, President & CEO
- Brian Jaramillo, COO
- Greg Lackey, CFO
- Jason Howarth, Project Executive
- Steve Worley, Project Executive
- Robert Krzyszkowski, Production Director

Team Identification

Quality performance to the highest professional standards.

Our design-build team is lead by Tilden-Coil Constructors, Inc. as the lead contractor and design-builder and Holt Architecture as the lead design firm. We have an exclusive partnership with Silver Creek Industries for modular design and construction should a modular solution be selected by the County.

Tilden-Coil is a Riverside headquartered company for over 83 years and has served Riverside County for the last 26 years constructing nearly \$113 million of county facilities. In addition to our Riverside Headquarters, we have an office in Palm Desert and have served the Coachella Valley for over 30 years. We have a proven ability to work together with all departments of the County and our familiarity will allow us to move quicker than any other team.

Holt Architecture is the leading architect in the Coachella Valley and has served the County of Riverside on over 150 projects. This includes fire stations such as the North Shore fire station in 2010. By partnering with our design-build team the County gets the advantage of starting off on day one with momentum!

Discipline	Company	License
Design-Builder	Tilden-Coil Constructors, Inc.	#208556, A, B
Architect	Holt Architecture	#31626 (T. Howell)
Modular Company	Silver Creek Industries	#855259
Civil Engineer	VCA Engineering, Inc.	#56574
MEP Engineer	Design West Engineering	#E19480 (L.Maya) CA #6079 (S.Johnson)
Structural Engineer	Wiseman + Rohy Structural Engineering	#C0849685
Landscape Architect	Community Works Design Group	#5111
LEED Consultant	Ecotype	#C29013

Our team has had no instances of the following:

- Revocation or suspension of any license, credential, or registration;
- Being the subject of a default or termination by owner;
- Ineligibility to bid pursuant to enforcement of the Labor Code, debarment, disqualification, or for any other reason;
- Conviction of a crime related to construction;
- Conviction of crime related to fraud, theft, or any other act of dishonesty;
- Found liable in a civil suit or found guilty in a criminal action for making any false claim;
- Current involvement in a bankruptcy case;
- Operated under another name.

One instance of the following:

- Any claim in excess of \$50,000 against a project owner (backup included in the appendix)

Notarized Bonding Capacity

CULBERTSON INSURANCE SERVICES, INC.

5500 E. SANTA ANA CANYON ROAD, SUITE 201 ANAHEIM, CA 92807-3103 PHONE 714/921-0530 FAX 714/921-2096
EMAIL: bonds@culbertsonbonding.com

June 7, 2021

County of Riverside
Attn: Dominick Lombardi, Project Manager
Facilities Management Department
3133 Mission Inn Avenue
Riverside, CA 92507

**RE: Tilden-Coil Constructors, Inc.
Prequalification to Bid: Riverside County Fire Department Modular Station
41 North Shore and Fire Station 49 Lake Tamarisk**

Mr. Lombardi:

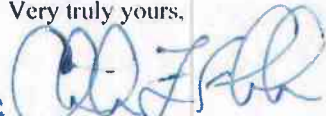
We are the bonding agent for Tilden-Coil Constructors, Inc. Their bonds have been written through Great American Insurance Company since August 1986. Great American Insurance Company is currently listed with the Federal Register/The Department of the Treasury's Listing of Approved Sureties and maintains a Best Guide rating of A+ XV and is licensed to do business in all fifty states.

Great American Insurance Company currently extends a credit line of \$150,000,000 single and \$200,000,000 aggregate with a current available bonding capacity of \$110,000,000 for this account. This line does not preclude Tilden-Coil Constructors, Inc. from consideration of projects in excess of these limits. Please be advised that before we can make a final decision on providing any bond, we reserve the right to review other bids, the contract proposal and any other specific underwriting factors that may be present at the time of the bond request.

Any arrangement for bonds is a matter between Tilden-Coil Constructors, Inc. and Great American Insurance Company, and we assume no liability to third parties or to you, if for any reason bonds are not executed.

We consider Tilden-Coil Constructors, Inc. to be one of our finest contractor accounts.

Very truly yours,



Charles L. Flake
Attorney-In-Fact
Great American Insurance Company



CONTRACTOR BOND SPECIALISTS

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

County of Orange }

On 6-07-21 before me, Lexie Sherwood, Notary Public,
Date Insert Name of Notary exactly as it appears on the official seal

personally appeared Charles L. Flake
Name(s) of Signer(s)



Place Notary Seal Above

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Lexie Sherwood
Signature of Notary Public Lexie Sherwood

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of the form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer is Representing:

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer is Representing:

GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than FIVE

No. 0 20942

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
DAVID L. CULBERTSON	HEATHER WILLIS	ALL
CHARLES L. FLAKE	LEXIE SHERWOOD	\$100,000,000.00
SPENCER FLAKE	ANAHEIM, CALIFORNIA	

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 8TH day of SEPTEMBER 2020



Steph C. B.
Assistant Secretary

Mark V. Vicario
Divisional Senior Vice President

MARK VICARIO (877-377-2405)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this 8TH day of SEPTEMBER, 2020, before me personally appeared MARK VICARIO, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal, that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

Susan A Kohorst

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHIA, Assistant Secretary of Great American Insurance Company, do hereby certify that the Corporate Seal of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 7th day of June 2021



Steph C. Berahia
Assistant Secretary



Proof of Insurance



TILDCON-01

DPAGE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/31/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0757776 Riverside, CA - HUB International Insurance Services Inc. PO Box 5345 Riverside, CA 92517	CONTACT NAME: Velma Pue
	PHONE (AC, No, Ext): (951) 779-8567 FAX (AC, No): (951) 742-4066 E-MAIL ADDRESS: velma.pue@hubinternational.com
INSURED Tilden-Coll Constructors, Inc. 3612 Mission Inn Ave. Riverside, CA 92501	INSURER(S) AFFORDING COVERAGE NAIC #
	INSURER A : Travelers Property Casualty Company of America 25674
	INSURER B : Indian Harbor Insurance Company 36940
	INSURER C :
	INSURER D :
	INSURER E :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL/SUBR INSD. WYD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJCT <input type="checkbox"/> LOC OTHER:		DTE-CO-1166C567-TIL-20	12/31/2020	12/31/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP. (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000 EBL AGGREGATE \$ 2,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		810-8N638483-20-26G	12/31/2020	12/31/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		CUP-4P792767-20-26	12/31/2020	12/31/2021	EACH OCCURRENCE \$ 20,000,000 AGGREGATE \$ 20,000,000
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in HI) Y/N If yes, describe under DESCRIPTION OF OPERATIONS below N/A		UB-9J589636-21-26-G	1/1/2021	1/1/2022	<input checked="" type="checkbox"/> PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Professional/Poli.		CEO744688204	4/15/2020	4/15/2021	Each Claim: 2,000,000
B	Liability		CEO744688204	4/15/2020	4/15/2021	Aggregate: 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 RE: Evidence of Insurance.

CERTIFICATE HOLDER

Tilden Coll
 Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03)

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
8/26/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Dealey, Renton & Associates 790 E Colorado Blvd., # 460 Pasadena CA 91101 License#: 0020739 HOLTARC-01	CONTACT NAME: Marie Swaney PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS: mswaney@dealeyrenton.com <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">INSURER(S) AFFORDING COVERAGE</th> <th style="text-align: left;">NAIC #</th> </tr> <tr> <td>INSURER A : HARTFORD INSURANCE COMPANY</td> <td>38288</td> </tr> <tr> <td>INSURER B : Travelers Property Casualty Company of America</td> <td>25674</td> </tr> <tr> <td>INSURER C : Aspen American Insurance Company</td> <td>43460</td> </tr> <tr> <td>INSURER D :</td> <td></td> </tr> <tr> <td>INSURER E :</td> <td></td> </tr> <tr> <td>INSURER F :</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A : HARTFORD INSURANCE COMPANY	38288	INSURER B : Travelers Property Casualty Company of America	25674	INSURER C : Aspen American Insurance Company	43460	INSURER D :		INSURER E :		INSURER F :	
INSURER(S) AFFORDING COVERAGE	NAIC #														
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INSURER C : Aspen American Insurance Company	43460														
INSURER D :															
INSURER E :															
INSURER F :															

COVERAGES CERTIFICATE NUMBER: 29219961 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR Contractual Liab <input checked="" type="checkbox"/> XCU Included GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER	Y	Y	6809M52505A	7/9/2020	7/9/2021	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000 \$
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NoOwned Auto <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	Y		6809M52505A	7/9/2020	7/9/2021	COMBINED SINGLE LIMIT (Ea accident) \$ included in GL BODILY INJURY (Per person) \$ Limit BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	Y	Y	CUP9M525165	7/9/2020	7/9/2021	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	72WEGGA4610	9/1/2019	9/1/2020	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Professional Liability Retro: 10/01/1993			AAA10026502	7/9/2020	7/9/2021	Per Claim \$ 2,000,000 Annual Aggregate \$ 2,000,000

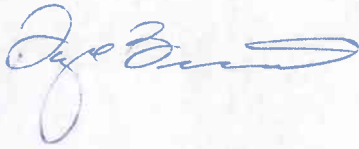
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Auto Limit is included in General Liability limit and is follow-form the GL Endorsements. Insured owns no company vehicles; therefore, hired/non-owned auto is the maximum coverage that applies. Umbrella Policy is follow form to the underlying Policies: GL/Auto Liability/Employers Liability. AM Best's Rating on all policies above: A/XII or greater.
 Proof of coverage(s)

CERTIFICATE HOLDER For Proposal Purposes ONLY ...	CANCELLATION 30 Day Notice will be sent to holder SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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Certification

I Certify that the information provided is true and correct to the best of my knowledge



Dayne Brassard

President & CEO

Tilden-Coil Constructors, Inc.

Building with Integrity Since 1938

dbrassard@tilden-coil.com

Appendix

Backup Claim Information

Case: On 1/7/15 Tilden-Coil Constructors, Inc. filed a lawsuit in Los Angeles County against the Los Angeles Unified School District for multiple allegations relating to the East Los Angeles Star Adult Education Facility East Los Angeles Star High School Academy and Gym project. The lawsuit alleges, among other things, that LAUSD failed to fully pay for owner approved change orders, failed to provide adequate extensions of time for owner caused delays, failed to issue timely payment, and withheld excessive and unwarranted funds from Tilden-Coil and its subcontractors.

Background: The background of the project lends some clarity to the lawsuit filed. The original contract was \$26 million and the project experienced changes, under the owners responsibility (e.g. owner changes, unforeseen conditions) in excess of \$25 million dollars. Primary issues which drove changes were due to the existing undocumented conditions of the facility, which was a vacant 3-story hospital built in 1929.

Status: The case was settled in 2016.

Corporate Information

Tilden-Coil Constructors, Inc. incorporated in January 1962. Attached on the following page is the latest Statement of Information filed on January 20, 2021.



California Secretary of State
Electronic Filing



Corporation - Statement of Information

Entity Name: TILDEN-COIL CONSTRUCTORS, INC.

Entity (File) Number: C0427243

File Date: 01/20/2021

Entity Type: Corporation

Jurisdiction: CALIFORNIA

Document ID: GN83408

Detailed Filing Information

1. Entity Name: TILDEN-COIL CONSTRUCTORS, INC.

2. Business Addresses:

a. Street Address of Principal Office in California:

3612 Mission Inn Avenue
Riverside, California 92501
United States of America

b. Mailing Address:

3612 Mission Inn Avenue
Riverside, California 92501
United States of America

c. Street Address of Principal Executive Office:

3612 Mission Inn Avenue
Riverside, California 92501
United States of America

3. Officers:

a. Chief Executive Officer:

Dayne Brassard
3612 Mission Inn Avenue
Riverside, California 92501
United States of America

b. Secretary:

Gregory Lackey
3612 Mission Inn Avenue
Riverside, California 92501
United States of America

Document ID: GN83408

Use bizfile.sos.ca.gov for online filings, searches, business records, and resources.



California Secretary of State Electronic Filing

Officers (cont'd):

- c. Chief Financial Officer: Gregory Lackey
3612 Mission Inn Avenue
Riverside, California 92501
United States of America
4. Director: Dayne Brassard
3612 Mission Inn Avenue
Riverside, California 92501
United States of America
- Number of Vacancies on the Board of Directors: 0
5. Agent for Service of Process: Gregory Lackey
3612 Mission Inn Avenue
Riverside, California 92501
United States of America
6. Type of Business: Construction Management

By signing this document, I certify that the information is true and correct and that I am authorized by California law to sign.

Electronic Signature: Gregory Lackey

Use bizfile.sos.ca.gov for online filings, searches, business records, and resources.

Document ID: GN83408



California Secretary of State Electronic Filing

Corporation - Attachment to Statement of Information

List of Additional Directors:

1. Brian Jaramillo
3612 Mission Inn Avenue
Riverside, California 92501
United States of America
2. Gregory Lackey
3612 Mission Inn Avenue
Riverside, California 92501
United States of America
- 3.
- 4.
- 5.
- 6.
- 7.

Document ID: GN83408

Use bizfile.sos.ca.gov for online filings, searches, business records, and resources.

TEAM QUALIFICATIONS

Riverside County Modular Fire Station 41
North Shore & Fire Station 49 Lake Tamarisk

STA. 7
IMPERIAL COUNTY FIRE DEPARTMENT

 Tilden-Coil
CONSTRUCTORSSM
Building with Integrity Since 1938

 HOLT
ARCHITECTURE

A Winning Team

You will find that our Design-Build team has the right mix of experience, longevity, local reputation and capable staff to successfully serve your team on these upcoming projects.



License | #208556, A, B
 Corporation, 1962
 145 Employees

Tilden-Coil is a Riverside headquartered company for over 83 years and has served Riverside County for the last 26 years constructing nearly \$113 million of county facilities. In addition to our Riverside Headquarters, we have an office in Palm Desert and have served the Coachella Valley for over 30 years. We have a proven ability to work together with all departments of the County and our familiarity will allow us to move quicker than any other team. Tilden-Coil Constructors exists to serve by shaping futures. This is the core of who we are, and the defined purpose of our organization.



License | #31626
 (Tom Howell)
 Corporation, 1998
 9 Employees

Why Holt? We offer two distinct advantages over our competition. We offer each client and project a Principal that will be the day-to-day point of contact on your project from start to finish providing your project with the highest levels of experience and value. Second, our firm is built to be a service-based company that provides architectural services. By that we mean that we offer a higher level of client service first coupled with our experience and expertise as architects. We will tailor our service-model and project development processes to fit the form, needs, and requirements of you as our client, not the other way around. Holt Architecture is the leading architect in the Coachella Valley and has served the County of Riverside on over 150 projects. This includes fire stations such as the North Shore fire station in 2010.



License | #855259
 LLC
 (incorporated 2005 - 2020)
 325 Employees

Silver Creek Industries specializes in the design and construction of high quality, energy efficient, and cost-effective modular buildings. With decades of experience and thousands of projects completed, our modular buildings and construction services provide exceptional quality, adherence to all codes, and economic value that is unparalleled in the industry.

Additional Consultants

Discipline	Company	License	Type of Co. Date Incorporated	No. of Employees
Civil Engineer	VCA Engineering Inc.	#56574	Corporation 2003	32
MEP Engineer	Design West Engineering	#E19480 (L.Maya) CA #6079 (S.Johnson)	Corporation 2000	55
Structural Engineer	Wiseman + Rohy Structural Engineers	#C0849685	Corporation 1978	13
Landscape Architect	Community Works Design Group (CWDG)	#5111	Corporation 1985	8
LEED Consultant	Ecotype	#C29013	Corporation 2008	3

Tilden-Coil and Holt Architecture Shared Experience

Tilden-Coil and Holt Architecture have extensive experience together including 12 projects in the last 15 years. The Tilden-Coil and Holt Architecture teams work seamlessly together, and this experience and our comfort level working as a team allows us to serve our clients successfully. Below are a list of our projects we have worked on or are currently working on together:

1. City of Indio Public Safety Campus, City of Indio
2. Nuview Library Replacement, County of Riverside
3. Roy's Desert Resource Center Remodel, County of Riverside
4. Ben Clark Sheriff Training Center Platform, RCCD
5. Olivewood Mausoleum, Olivewood Cemetery
6. Project Phoenix Community Center, City of Twentynine Palms
7. Riverside County Law Library Renovation
8. Promontory Development Palm Desert*
9. 851 E. Cooley Drive, County of San Bernardino*
10. Law Offices for Public Defender, County of Riverside*
11. Probation Administration, County of Riverside*
12. Ontario Police Department, City of Ontario*

*Tilden-Coil provided design support/preconstruction services (no construction)

County of Riverside
Nuview Library Replacement
**Tilden-Coil Constructors /
Holt Architecture**



PUBLIC SAFETY CAMPUS PH. 1

City of Indio



Project Description

The campus expansion includes a new 22,596 sf Public Safety Service building, a 7,336 sf single-story Communication Dispatch Center, and a 13,445 sf, single-story, 4-apparatus bay, 15 bed fire station.

Team

Marty Greenwood, Project Executive | Tilden-Coil
 Bryant Ismerio, Senior Project Manager | Tilden-Coil
 Civil | VCA
 Landscape | CWDG
 Structural | Wiseman + Rohy
 MEP | P2S, Inc.

Location | Indio, CA

Size | 43,400 sf

Architect | Holt Architecture

Delivery Method | CM Multi-Prime

Value | \$43 Million

Duration | 29 months (estimated)

Completed | In Progress

Reference

Robert Fish, Division Chief
 (951) 377-5031

ROY'S DESERT RESOURCE CENTER REMODEL

County of Riverside



Project Description

The mental health facility offers in-patient care including forensic, augmented and clinic spaces for the County of Riverside. The Project consists of construction of approximately 49,700 sf tenant improvement of an existing Concrete Tilt-Up Building in Palm Springs, CA.

Team

Steve Worley, Project Executive | Tilden-Coil
Marty Greenwood, Project Manager | Tilden-Coil
Civil | Southwest Consulting
Landscape | CWDG
Structural | Buehler
MEP | Design-West Engineering

Location | Palm Springs, CA

Size | 49,693 sf

Architect | Holt Architecture

Delivery Method | CM Multi-Prime

Value | \$20 Million

Duration | 428 days

Completed | August 2020

Reference

Anna Rodriguez, Development Manager
(760) 808-0571

WMWD OPERATIONS CENTER

Western Municipal Water District



Location | Riverside, CA

Size | 31,800 sf

Architect | Ruhnu Clarke Architects

Delivery Method | CM Multi-Prime

Value | \$10 Million

Duration | 329 days

Completed | June 2010

Description

The new Operations and Maintenance facility provided a much needed expansion to an existing facility where the most recent building construction took place more than 20 years ago. The Operations building is a 20,400 sf single story structure constructed out of masonry and steel. To accommodate training for WMWD's operations employees, the building contains a training room with a complete AV system to handle training for 30 employees, which can also be divided up into 5 separate rooms.

The training room was also constructed to be used as WMWD's **Emergency Operations Center in the event of a local disaster**, including emergency power generation from a new 500 KW generator installed on site. Other features included in the building were an employee kitchen and dining room, locker rooms with showers, a uniform receiving room, supervisor offices, a public conference room, and a room to house WMWD's infrastructure monitoring system.

The Maintenance building is a 15,000 sf, 38' tall masonry building that houses WMWD's vehicle maintenance and sewer and water equipment maintenance. Included in the building are 16 roll up doors, 3 vehicle lifts, tire changing and brake maintenance equipment, oil storage tanks, compressed air system, and a 6-ton bridge crane that runs the entire length of the building. Additionally, 7 interior workshops, an office, break room, shower room, and auto part storage were also constructed.

Team

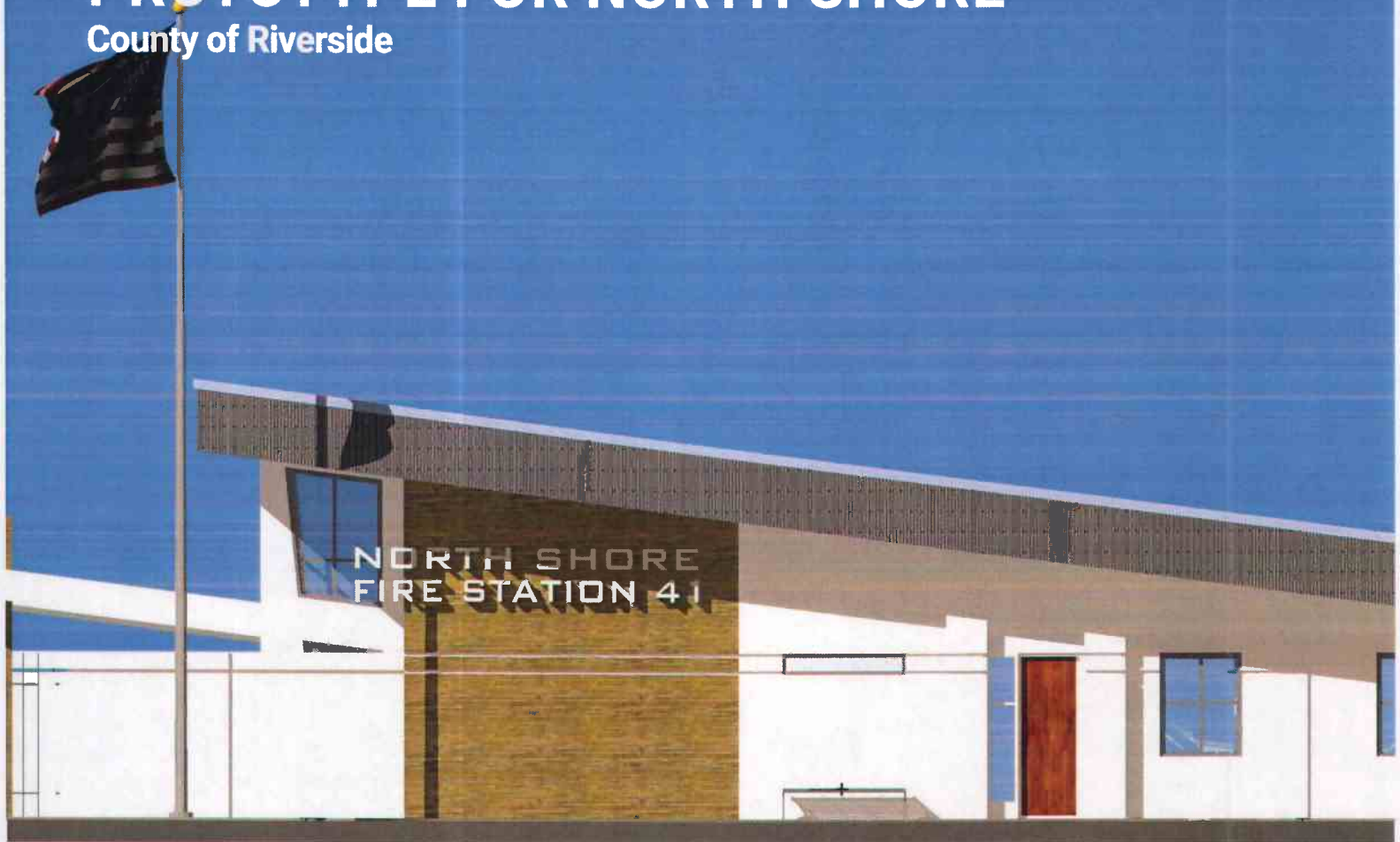
Steve Worley, Project Executive
Jimmy Riordan, Project Manager

Reference

Jeff Sims, Asst. General Manager
(951) 571-7100

RIVERSIDE COUNTY FIRE STATION PROTOTYPE FOR NORTH SHORE

County of Riverside



Project Description

2-Apparatus Bay, 6-Bed initial Facility expandable to 3-Apparatus Bays and 10-Beds. Both this and a similar Station for Oasis were stopped in Plan Check due to retraction of Redevelopment Funding by the State.

Team

Civil | Southwest Consulting
Landscape | CWDG
Structural | Buehler
MEP | Design-West Engineering

Location | North Shore, CA

Size | 7,319 sf

Delivery Method | Design-Bid-Build

Value | \$2.6 Million

Duration | 6 months (design and plan check)

Completed | Not completed due to dissolution of RDA Funding

Reference

Joaquin Tijerina, Director, Riverside County Small Business Development Center
(760) 408 - 8953

NILAND PUBLIC SAFETY FACILITY (FIRE AND POLICE)

County of Imperial



Project Description

A multi-Use CDBG funded project that includes 3-Appartus Bay, 6-Bed Replacement Fire Station; 1,500 SF Imperial County Sheriff Station; 1,500 SF Multi-Purpose Community Room/Emergency Shelter. The fire station building includes a living area for the Fire Department, offices, restrooms and a community area for the public. Fire Alarm and Fire Safety designs were added for local Authority Having Jurisdiction approval.

Team

Contractor | A&N Quality Builders
 Civil | The Holt Group
 Structural | Buehler
 MEP | Design-West Engineering

Location | Niland, CA

Size | 7,555 sf

Delivery Method | Design-Bid-Build

Value | \$4.9 Million

Duration | 730 days

Completed | March 2021

Reference

Jeff King, Nicklaus Engineering (Owner's Project Inspector/Manager)
 (928) 550 - 8004

Modular Company



Silver Creek Industries is a leader in offsite modular building construction. With decades of experience and thousands of projects completed, our team delivers innovative and cost effective building solutions. Our modular buildings and construction services provide exceptional quality, adherence to all codes, and economic value that is unparalleled in the industry. Additionally, we manufacture our structures in over 250,000 sf of protected, lighted factory space where the modular buildings are shielded from the elements. We use this highly controlled environment to run multiple shifts per day and ensure impeccable workmanship in every building detail.

KIPP ACADEMY OF OPPORTUNITY | KIPP LA SCHOOLS

Los Angeles, CA | \$4,700,000 | 28,000 sf | Duration: 220 Days | Completed: August 2016



Due to the design-build project delivery approach utilized on this project, Silver Creek was able to collaborate directly with the client on design considerations during the conceptual phase of the project to ensure the modular construction systems selected would support the design intent. The project consisted of a three-story structure, which houses an entire charter school campus and the related functional spaces. The building contains 18 classrooms, a kitchen, multipurpose space, administrative spaces, interior corridors, an interior elevator, and interior stairs. The building exterior features plaster with a bright color palette and aluminum glazing systems.

JOHNSON ELEMENTARY SCHOOL | CAJON VALLEY USD

El Cajon, CA | \$4,700,000 | 10,880 sf | Duration: 230 Days | Completed October 2020



Pre-Approved-PC based two story building containing classrooms, student restrooms, staff restrooms, and prep/tutoring spaces

JOHN MUIR FUNDAMENTAL SCHOOL | SANTA ANA USD

Santa Ana, CA | \$11,400,000 | 33,792 sf | Duration: 173 Days | Completed September 2020



Construction of a custom two-story building containing classrooms, restrooms, staff lounge, and support spaces.

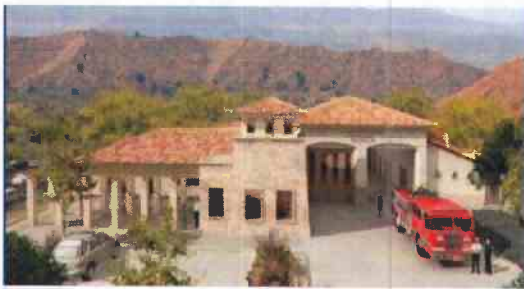
Civil Engineer



VCA Engineers, Inc. provided civil engineering services such as finished floor elevations of the new structures that are relative to the site for drainage and ADA compliance. VCA also prepared construction documents to include civil drawings depicting: Site Horizontal and Vertical Control, Site Paving, Grading and Drainage with local Storm Water Management Design (SUSMP), Hydrology and Hydraulics Study, Cut and Fill, Utility Plans, Utility Profiles, Site Sections and Miscellaneous Sections and Details, including details of critical conditions and connections. VCA also designed the storm drain lines and wet utilities such as fire water, potable water, and sanitary sewer.

SANTA CLARITA FIRE STATION 104 | COUNTY OF LOS ANGELES

Santa Clarita, CA | Design-Bid-Build | Team: Martinez Architects | \$12,000,000 | 11,000 sf | Duration: On-Going



Fire Station #104 project includes construction and associated work for a new facility. The site covers approximately 1.93 acres and the footprint of the station is approximately 11,000 sf. The structures to be built on the site consist of a 2-bay apparatus room, 7 dorm rooms with Administrative Offices, 1,200 sf of support spaces and separate fueling station at rear of site. This project was designed for LEED Silver Certification.

Norberto Martinez, Martinez Architects, Inc. | (323) 306-4708

NEW CANYON COUNTRY FIRE STATION 128 | COUNTY OF LOS ANGELES

Canyon Country, CA | Design-Bid-Build | Team: Martinez Architects | \$10,200,000 | 9,976 sf | Duration: 730 Days | Completed 2012



The Fire Station #128 site is comprised of approximately 1.34 acres of vacant land with existing improvements. The structures to be built on the site consist of a 9,976 sf one story LEED Silver Certified Fire Station containing a 2-bay apparatus room, 7 dorm rooms with 2,600 sf of Administrative Offices and 1,200 sf of support spaces. Separate fueling station project received LEED Silver Certification.

Tony Morera, AIA, Martinez Architects, Inc. | (310) 306-4708

SANTA CLARITA FIRE STATION 150 | COUNTY OF LOS ANGELES

Canyon Country, CA | Design-Bid-Build | Team: CannonDesign | \$12,500,000 | 9,976 sf | Duration: 2,190 Days | Completed 2013



The Los Angeles County conducted a feasibility study of constructing the new Fire Station 150 on a 2-acre site. This new Fire Station provides improved fire protection, emergency medical and life safety services to Santa Clarita and nearby unincorporated areas of northern Los Angeles County. The new 20,000 sf facility includes a three-bay apparatus room, training room, exercise room, kitchen, day room and dormitories. In addition, the new Fire Station 150 will meet the LEED's Silver Certification requirements of the County wide Energy and Environmental Policy.

Mark Gajda | (626) 666-6906

MEP Engineer



Working for government agencies requires an understanding of many diverse project types. This can include essential services, critical facilities, community buildings, public administration, justice, corrections and detention, civic infrastructure, and other facility types. Design West's team brings you expertise in all these project types, having a long history of experience with countless city and county clients as well as various state and federal agencies. Beyond just designing to the project type, this experience includes successful support of public works bidding and construction administration services. It includes effective communication and collaboration with various regulatory agencies, utility companies, governmental departments, and multiple stakeholders.

FIRE STATION 163 | CITY OF UPLAND

Upland, CA | Design-Bid-Build | Duration: 45 Days | Completed May 2017

Electrical plans and specifications for the design of a new 400A 208V 3ph electrical service at the existing Fire Station #163 located at 1350 N Benson Ave, Upland, CA 91786. The fire station is currently served from the City Yard electrical service and is connected to the solar photovoltaic system. The county will be taking over the building and the intent is to provide a separate electrical service for the fire station building to remove it from the city yard service and PV system. The existing electrical panels within the building will be rerouted to the new electrical service. Additionally, a new automatic transfer switch will be provided and connected to the existing city yard generator.

Harrison Nguyen, Civil Engineer, City of Upland | (909) 496-8273

CHINO POLICE STATION REAL TIME CRIME UNIT | CITY OF CHINO

Chino, CA | Design-Bid-Build | Duration: 60 Days | Completed March 2019

Mechanical and Plumbing plans with specifications for Chino Police Station Real Time Crime Unit. The scope of the project will include performing loads to determine the size of required fan coil unit based on equipment and staff located within the remodel space. The new dedicated fan coil unit to serve the space will either be served by a new roof mounted DX outdoor unit or connected to the existing chilled water piping system. Demolition plans showing the existing ductwork serving the space being capped and rebalanced to the remaining rooms on the zone. The plumbing scope will include routing the condensate piping from the fan coil unit to an approved location.

Carolyn Baltzer, Project Manager, City of Chino | (909) 334-3401

PROJECT PROFILE #3

Found on Page 22.



Landscape Architect

Community Works Design Group was established in 1985 and provides municipal planning services throughout the State of California. The firm focuses on Park, Recreation, Streetscape and Trails Planning projects. CWDG has a ready and available staff of nine highly professional individuals. We draw on four Licensed Landscape Architects, two LEED/ SITES Accredited Professionals, as well as an ISA Certified Arborist, Certified Irrigation Designer/ Certified Landscape Irrigation Auditor, and a Certified Access Specialist (CASP). Community Works Design Group does what its name implies - it assists communities with the design of projects that work. Our focus is on municipal projects and has been since day one in 1985.

FIRE STATION TURF REMOVAL/LANDSCAPE RENOVATION | CITY OF HIGHLAND

Highland, CA | Design-Bid-Build | Duration: 2016 - 2018 | Completed 2018

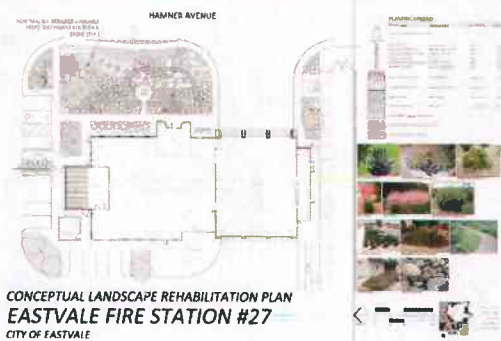


In the contract capacity of City Landscape Architect, the CWDG team guided the design and approval process for the City's flagship Police Station. Additionally, our team has led City-wide water conservation efforts by identifying non-essential turfgrass and designing the replacement of water-conscious plantings and hardscape in place of the removed grass at various City-owned facilities, including all 3 Fire Stations, City Hall, and City Yard.

Kim Stater, Asst. Community Development Director | (909) 864-8732

FIRE STATION #27 LANDSCAPE RENOVATION | CITY OF EASTVALE

Eastvale, CA | Design-Bid-Build | Duration: 2020-2021 | Completed 2021



CWDG worked directly with the City and Fire Department staff to provide conceptual plans and construction drawings for renovating the landscape at the City's flagship fire station.

Bill Hemsley, Contract City Engineer | (951) 703-4472

SBMWD HEADQUARTERS | CITY OF SAN BERNARDINO MUNICIPAL WATER DISTRICT

Canyon Country, CA | Design-Bid-Build | Duration: 2016-2018 | Completed 2018



CWDG prepared drought-tolerant, low maintenance landscape plans for the City's new Water District headquarters, including a dedicated outdoor employee break area. Rock materials and synthetic turf supplemented the California-friendly demonstration plantings.

Devin Arciniega, Water Conservation/Public Affairs Coordinator | (909) 453-6052

Structural Engineer



Wiseman + Rohy Structural Engineers has been involved with the design of office and educational buildings for nearly four decades. We embrace these projects, as they allow us to focus on efficiency of the structure and usefulness to the occupant.

PROJECT PROFILE #1 Found on Page 18.

ENCINITAS FIRE STATION #5

Encinitas, CA



The 6,000 sf building consists of living quarters, fire training and maintenance, an apparatus bay for the fire trucks, and an equipment tower. The construction consists of concrete block, steel, and wood framing.

CENTRAL AREA POLICE STATION

San Diego, CA



The two-story 42,000 sf building houses training, offices, and secure spaces. The structural materials were carefully chosen and designed to meet the security needs of the agency. The exterior walls are concrete block and the second floor and roof are steel and concrete. The adjacent 78,000 sf three-level parking structure was also apart of this project.

LEED Consultant



Ecotype Consulting was established with the fundamental belief that ecology, economy, and society are the three legs that support sustainability. For that reason, we take a holistic and pragmatic approach to the practice. Sustainable design must be practical, affordable, accessible, educational, and human-centered. It is a multi-disciplinary effort, which requires open, direct, and focused communication.

SANTA CLARITA VALLEY SHERIFF'S STATION

Santa Clarita, CA | Duration: 2018 - 2021 |
Completed 2021

The project is a new police station for the Los Angeles County Sheriff's Office, which provides police services to the City of Santa Clarita. It is a new 46,552 sf facility with a 4,165 sf vehicle maintenance building. The project will be a 24/7 emergency services facility, which includes emergency power generation, radio communications, equipment storage (motorized and non-motorized), detention cells, and a helipad. Ecotype Consulting is providing LEED consulting and commissioning for the project.

LOS ANGELES COUNTY FIRE STATION 97

Azusa, CA | Team: Rosedale Land Partners |
Duration: 2015 - 2016 | Completed 2016

The project is a new fire station built and owned by a private developer. It is occupied and operated by the Los Angeles County Fire Department. Ecotype Consulting provided commissioning services.

UC SAN DIEGO HEALTH - JACOBS MEDICAL CENTER

La Jolla, CA | Team: CannonDesign |
Duration: 2008 - 2019 | Completed 2019

The project consisted of a new Central Utilities Plant for the UCSD East Campus, and a new 10-story bed tower adjacent to the existing Thornton Hospital. Ecotype Consulting provided LEED consulting starting in design phase in 2008 through completion of LEED certification in 2019. Each building earned LEED Gold certification.

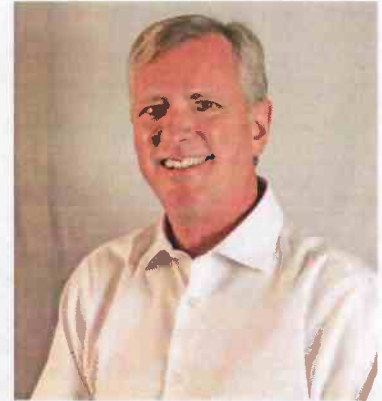
Marty Greenwood

Project Executive | Tilden-Coil Constructors, Inc.



About

Marty Greenwood is a results-oriented, hands-on project executive with **32 years of industry experience**. He has a verifiable track record of successful projects that range from the \$32 Million Expansion of the North Annex Jail Adult Detention Facility in Fresno to multiple public school facility improvement projects. Marty has a diverse range of skills and has successfully managed teams, company departments and entire organizations at the VP level. Marty has over 15 years experience as a Senior Project Manager and 12 years of experience as a Vice President for a public works construction company. Marty is now focused on on-site leadership for individual projects for the last 8 years at Tilden-Coil Constructors, where his results-oriented approach has yielded consistently positive results.



Role

Marty will lead the team throughout both preconstruction and construction. He provides mentoring and problem solving expertise to the entire team. Marty will drive the team to meet the project schedule and budget and will hold the project team accountable to meet deliverables. He will be dedicated part-time to the project and will be in regular communication with the County.

Experience (Partial List)

Project / Client	Value
RUHS Behavioral Health Restorative Transformation Center The County of Riverside	\$13 Million
Arlington Recovery Community & Sobering Center The County of Riverside	\$17 Million
Adult Detention Facility Expansion The County of Fresno	\$32.2 Million
Project Phoenix Community Center The City of Twentynine Palms	\$10 Million
Nuview Library Replacement The County of Riverside	\$3.3 Million
Roy's Desert Resource Center The County of Riverside	\$20 Million
Mental Health Crisis Service Center The County of Riverside	\$11 Million
Smith Correctional Facility Clinic and Laundry Expansion The County of Riverside	\$10 Million
Riverside County Law Library Renovation Riverside County Law Library	\$3.5 Million
Highgrove Elementary School Improvements Riverside Unified School District	\$18 Million
Magnolia Elementary School Improvements Riverside Unified School District	\$9 Million
Facilities Planroom & Emergency Operations Center Mt. San Antonio College	\$3 Million

Education

Bachelors of Science Degree in Construction Management, California State University, Fresno

Associates Arts Degree in General Education, Hartnell Junior College, Salinas

Training and Certification

Forklift Certification

Scaffolding

Excavation

30 Hour OSHA

Certified Open Water Diver (PADI)

Qualified SWPPP Practitioner (QSP)

CPR/First Aid

Estimating

Project Management

Scheduling (Primavera)

Bryant Ismerio, LEED AP

Senior Project Manager | Tilden-Coil Constructors, Inc.



About

Bryant has 17 years of industry experience and has been a member of the Tilden-Coil team for 13 years. Throughout the span of his career, he has completed a variety of projects including a highly acclaimed olympic-style college aquatic center, and the new Culinary Arts Academy/ District Offices and Coil School for the Arts for Riverside Community College District (Centennial Plaza). The owner’s representative Chris Carlson, then Chief of Staff, reflected on the project by noting how she appreciated “the team of people who actually care about their work.”

Role

As Senior Project Manager, Bryant will be the day-to-day point of contact for the County throughout all phases of the project. Bryant’s specific responsibilities include financial management, client satisfaction, quality control, schedule and safety. He will start working on the project at the beginning stages of design and preconstruction to ensure a smooth transition and continued momentum through construction.

Experience (Partial List)

Project / Client	Value
Centennial Plaza (Culinary Arts/Offices, Coil School for the Arts) Riverside Community College District	\$54 Million
Roy’s Desert Resource Center The County of Riverside	\$20 Million
Indio Campus Expansion College of the Desert	\$41 Million
Ben Clark Sheriff Training Facility Riverside Community College District / County of Riverside	\$3 Million
Project Phoenix Community Center The City of Twentynine Palms	\$10 Million
Smith Correctional Facility Clinic and Laundry Expansion The County of Riverside	\$10 Million
Arlington High School Improvements Riverside Unified School District	\$21 Million
MVC Welcome Center Riverside Community College District	\$11 Million
Nuview Library Replacement The County of Riverside	\$3.3 Million
Norco College Secondary Effects Riverside Community College District	\$12 Million
Norco College Operations Center Riverside Community College District	\$9 Million
Riverside Aquatic Complex Riverside Community College District	\$9 Million
Center for the Arts University of Redlands	\$19 Million



Education

Bachelor of Science Degree,
Construction Engineering
Technology, California State
Polytechnic University, Pomona

Training

- LEED AP
- OSHA 30 Hour Course
- Critical Path Scheduling
- Primavera P6 Schedule Training
- CPR/First Aid
- SWPPP Training and Implementation
- Water Infiltration
- Primavera P6 Training
- Fall Protection
- Blue Beam As-Builts
- Building Information Modeling

Thomas Howell

Senior Principal | Holt Architecture

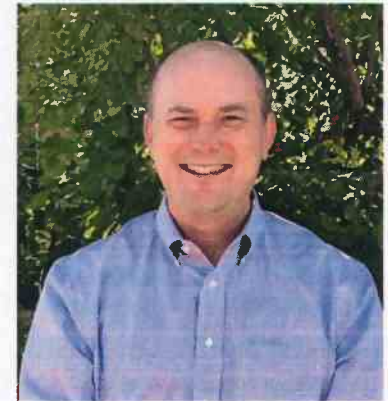


About

Tom has 32 years of industry experience and been part of Holt Architecture for 23 years and has ascended through the ranks to the role of Senior Principal. Throughout his time with Holt, he has completed a diverse variety of Public Sector Safety Projects, including the East County Emergency Operation Center, which is one of the most complex and shortest duration, being completed in just over one year from the start of design.

"I have worked with Holt on many projects for the County of Riverside. They are a very professional, customer centric firm that produces positive results on time and within budget. Holt listens to the client and produces workable solutions to problems that arise in design and construction. They are a very responsive group with dependable, long time staff."

Tim Miller EDA Assistant Director



Role

Tom provides coordination between consultants and office staff in detailing drawings and preparing specifications, cost estimating, bidding/negotiation and observation of construction.

Experience (Partial List)

Project / Client	Value
Riverside County Fire Station #86 Replacement City of Indio	\$10.4 Million
Riverside County Fire Station #33 Improvements City of Palm Desert	< \$1 Million
Riverside County Fire Station #71 Improvements City of Palm Desert	< \$1 Million
Niland Fire Station & Public Safety Facility County of Imperial	\$5.1 Million
Ben Clark Sheriff Training Facility Riverside Community College District / County of Riverside	\$3 Million
Secondary Emergency Operation Center City of Fontana	\$1.6 Million
East Riverside County Operation Center County of Riverside	\$5.1 Million
Ben Clark Training Center Fire Classroom Project County of Riverside (Project Stopped in Plan Check)	--
Holtville Fire Station & Public Safety Facility City of Holtville (Project Stopped in Plan Check)	--

Education

Bachelor of Science Degree,
Architectural Studies, University of Illinois

Master of Architecture, Southern CA Institute of Architecture

Registration

Architect: CA #31626

NCARB: #160933

Affiliations

American Institute of Architects

International Conference of Building Officials

Architectural Review Board - Rancho Mirage

California Baptist University - Construction Management Advisory Board

Matt Acton

Principal | Holt Architecture



About

Matt has 12 years of industry experience and been a part of the Holt Architecture team for 10 years and has quickly risen to become a Principal. Public Sector projects, specifically Public Safety projects, have been a staple of his experience including most recently a new Fire Station, Administration Building, Police Dispatch Center and master planning for a new Police Headquarters for the City of Indio. Clients come to recognize his level of diligence and commitment to projects with past clients repeatedly commenting, "He made us feel like we were his only client."

Role

Matt serves as the primary contact will be Project Manager and Project Architect. He is directly involved in the design + development of the Project Documents from initial concept to final construction. He will provide day-to-day oversight of the Project Team, Project Schedule, and Budget.



Experience (Partial List)

Project / Client	Value
Riverside County Fire Station #86 Replacement City of Indio	\$10.4 Million
Riverside County Fire Station #33 Improvements City of Palm Desert	< \$1 Million
Riverside County Fire Station #71 Improvements City of Palm Desert	< \$1 Million
Niland Fire Station & Public Safety Facility County of Imperial	\$5.1 Million
Ben Clark Sheriff Training Facility Riverside Community College District / County of Riverside	\$3 Million
Secondary Emergency Operation Center City of Fontana	\$1.6 Million
East Riverside County Operation Center County of Riverside	\$5.1 Million
Ben Clark Training Center Fire Classroom Project County of Riverside (Project Stopped in Plan Check)	--
Holtville Fire Station & Public Safety Facility City of Holtville (Project Stopped in Plan Check)	--

Education

Bachelor of Science Degree,
Architecture, University of
Michigan, Ann Arbor

Registration

Architect: CA #37028

NCARB: #624984

Affiliations

USGBC LEED Green Associate

Dennis Mattos

General Manager & Executive Project Manager | Silver Creek



About

Dennis brings nearly four decades of construction industry experience. He is a leading expert in modular construction, having spent his entire career in this field, and has special expertise in DSA-approved, K-12 education projects. Starting his career years ago as a foreman / assistance production manager with Fleetwood Homes, he became production manager / vice president of operations with Aurora Modular Industries, and prior to joining Silver Creek, was general manager at Modular Structures. Dennis has been at the forefront of the continual improvement in the quality and aesthetics of modular buildings.

Role

Dennis is responsible for project oversight and coordination. He will collaborate with the site/modular superintendent, Bob Barbee. Dennis coordinates and monitors all phases of the project including on-site activities through weekly jobsite visits. He also oversees procurement, negotiation of subcontracts, purchase orders, change orders, invoicing and assurance of smooth project close-out.

Experience (Partial List)

- Parkridge School for the Arts Modernization
- Santa Ana School District Elementary Schools
- Zela Davis Elementary School
- Design-Build Hart High School
- Ardenwood Elementary School
- Buena Vista Science Laboratory
- Helendale Rivers Edge Middle School Campus
- Chaparral Vista Classroom Additions

Ryan McIntosh, LEED AP, BD+C, CSI, ICC

Director, Design Services | Silver Creek

About

Ryan brings more than 12 years experience in the architecture, engineering, and construction industry with 9 years experience with K-12 facilities design and construction. His project management portfolio includes more than 1.1 million square feet of built environment with a total project valuation of more than \$270 million. He has managed the design of new, complete campuses comprising of large, two-story modular structures. Prior to joining Silver Creek, he was project manager and studio leader with SH Architecture where he concurrently managed two projects valued in excess of \$85 MIL each with a combined square footage exceeding 550,000. He has developed CHPS-preapproved modular classroom prototype designs, managed LEED certified projects, and has been a LEED Accredited Professional for more than four years.

Role

Ryan plays an instrumental role in ensuring the design and construction of our projects meet the schedule and programmatic needs of the end-user. He provides day-to-day management of the design process and works closely with other design team members to ensure a seamless, cohesive effort is delivered throughout the design process. Ryan leads the efforts to incorporate energy efficient features to the extent that it is cost-effective and feasible. He provides expertise in the potential attainment of certification of the Collaborative for High Performance Schools (CHPS), or USGBC LEED, as well as the steps required to meet or exceed the minimum Savings by Design threshold. Ryan provides constructability input and value engineering expertise during the design phase.

Experience (Partial List)

- Parkridge School for the Arts
- Crean Lutheran High School
- East Career & Technical High School
- Walter J. Porter (North and South Campuses)
- Helendale Rivers Edge Middle School Campus
- Inglewood USD Payne Elementary School

Specialized Training and Certification

- First Aid
- OSHA 10 Hour
- Situational Leadership Training

Specialized Training and Certification

- LEED Accredited Professional
- Zweigwhite AEC Project Management Training
- Crestcom Bullet Proof Management Training

Carlo Acabado

Production Manager | Silver Creek



About

Carlo brings to the production management more than ten years experience in modular construction. He initially joined the Silver Creek Industries team as project manager, assisting both site and buildings construction, and coordinating and monitoring the phases of the projects from design to final completion, interfacing with subcontractors, managing procurement, and performing quality checks of deliverables at each stage of each project. He began his career in the modular building industry as a project manager with Modular Structures International and gradually assumed the responsibilities of business developer. During his tenure with that company, he served as project manager for 11 DSA and educational construction projects and worked with nine school districts throughout Southern California.

Role

Carlo oversees the production process for all projects and monitors work of all sections/trades. He monitors product standards and enforces quality control programs. He liaises with various departments to stay ahead of projects being negotiated and materials needed for such. Carlo works with managers to implement the company's policies and goals. He ensures that health and safety guidelines are followed at all times and trains, supervises and motivates his team members.

Experience (Partial List)

- Antonio Maria Lugo Academy
- Parkridge School for the Arts
- Santa Ana School District Elementary Schools
- Design-Build Hart High School Modernization
- Zela Davis Elementary School
- Ardenwood Elementary School
- Buena Vista Science Laboratory
- Helendale Rivers Edge Middle School Campus
- Chaparral Vista Classroom Additions
- Herber Elementary School Administration and Classroom Building
- Chaparral Vista Classroom Additions
- South Hills High School 2-Story Facility

Bob Barbee

Field Manager | Silver Creek

About

Bob's long career includes experience in general construction as well as in modular DSA building and educational construction. He has served as a field manager responsible for the supervision of onsite daily operations for more than \$500 million in construction. Prior to joining Silver Creek, he served as a field manager with Aurora Inc., and Modular Structures. In that capacity, he supervised daily operations, including but not limited to scheduling, ordering, conducting inspections, and managing all trades onsite.

Role

Bob is responsible for pre-planning, labor management and allocation, scheduling, and subcontractor management. He also is charged with coordinating and communicating with project owners and site personnel to achieve the design, cost, quality, safety, and schedule objectives of each project. Bob communicates daily with suppliers and subcontractors to ensure timely submittals and subcontractor performance. As the onsite superintendent, he is supported by the project manager, executive project manager, the project executive as well as other office and field personnel during all phases of the project.

Experience (Partial List)

- Antonio Maria Lugo Academy
- Parkridge School for the Arts
- Santa Ana School District Elementary Schools
- Design-Build Hart High School Modernization
- Zela Davis Elementary School
- Ardenwood Elementary School
- Needles USD Modular Classroom Buildings

Specialized Training and Certification

CPR/First Aid Certified

OSHA 10-Hour Training

VCA Engineering, Inc.

Civil Engineer



VCA ENGINEERS, INC., an S-Corporation, owned and managed by Mr. Virgil C. Aoanan, is a client-focused, service-oriented civil and structural engineering firm located in the City of Alhambra and Irvine, California. With over 30 employees, (2 Principal Engineers, 17 Civil Engineers, 4 Structural Engineers, 4 CAD technicians and 5 administrative staff) VCA Engineers, Inc. engages in a wide variety of engineering designs and services involving private and public land development, facility engineering, transportation engineering, and topographical engineering.

VCA has both personal resources and design and construction experience that are relevant to the criteria as set forth in this RFP. The firm has successfully prepared Civil Engineering drawings, plans, specifications, cost estimates, calculations, studies, project definition books, and reports for various projects, involving, but not limited to: demolition, roadway design, ADA path-of-travel requirements, new and relocated utilities, grading, site developments, storm water management and drainage (LID, SUSMP and SWPPP), site sustainable design (LEEDS and CHPS), master planning, underground utilities, topographical/ALTA surveys, hydrology and hydraulics, flexible and rigid pavements, traffic signals, street signage and striping, sanitary sewers, potable and fire water, and irrigation water.

The firm's Structural Engineering design expertise encompasses planning, analysis and design of structures (large and small), retaining walls, shallow & deep foundation design, cost estimates, industrial build design, miscellaneous landscape structure design, peer review/plan checking, structural observation and analysis/structural repair of existing structures.



Virgil Aoanan

Principal | VCA Engineering, Inc.

Virgil has over thirty years of hands-on experience in civil and structural engineering related to planning, design, management, and construction of aviation, commercial, education, healthcare, housing industrial, institutional, military, municipal, recreation and transportation facilities. He has prepared and executed engineering construction documents (plans, specifications, calculations, requisitions, contracts) in multiple capacities as project manager, project engineer, lead engineer, design engineer, and construction engineer in both the civil and structural disciplines.

Education

Bachelor of Science Degree, Civil Engineering, University of Hawaii

Registration

Registered Civil Engineer, CA #6079

Registered Structural Engineer, CA #3903

CASQA Qualified SWPPP Develop and Practitioner (QSD and QSP)

Envision Sustainability Professional (EVN S.P.)

Design-West Engineering

MEP Engineer



Since our beginning in January of 2000, Design West Engineering has been a team that partners with you to provide the highest quality of engineering and customer service on Mechanical, Electrical, Plumbing, Fire Protection, and Technology systems. Within any facility, these systems are the details that you expect to work, not to notice. We see our role on your team in the same light. Our work is an integral part of your project functioning as it should. It goes far beyond just accurate engineering. It has everything to do with what we call good customer service.

Working for government agencies requires an understanding of many diverse project types. This can include essential services, critical facilities, community buildings, public administration, justice, corrections and detention, civic infrastructure, and other facility types. Design West's team brings you expertise in all these project types, having a long history of experience with countless city and county clients as well as various state and federal agencies. Beyond just designing to the project type, this experience includes successful support of public works bidding and construction administration services. It includes effective communication and collaboration with various regulatory agencies, utility companies, governmental departments, and multiple stakeholders.



Steven Johnson | P.E.

Senior Mechanical Engineer | Design-West Engineering

Steven Johnson joined Design West Engineering in 2002 and now directs the Mechanical and Plumbing Department. He ensures that each project manager is maintaining the quality of design and level of service that Design West is known for. He manages and oversees mechanical and plumbing design teams of virtually every type and for every sector of the industry, including K-12, higher education, municipal, healthcare, and industrial to name a few.

Education

Bachelor of Science Degree, Mechanical Engineering, Cal Poly Pomona

Registration

Registered Civil Engineer, CA #6079

Registered Structural Engineer, CA #3903

CASQA Qualified SWPPP Develop and Practitioner (QSD and QSP)

Envision Sustainability Professional (EVN S.P.)

Relevant Experience

- Fontana Police Department Renovation
- City of Rialto EOC Expansion
- Ben Clark Sheriff Training Center and EOC
- San Bernardino Co. Fire Station #91 in Lake Arrowhead
- L.A. County Fire Station #158 Complete Renovation



Leo Maya, P.E., LEED AP, BD+C

Senior Electrical Engineer | Design-West Engineering

With over 25 years of design and project management experience, Leo Maya has worked on a wide array of projects including large commercial and industrial buildings, health care and institutional facilities, data centers, sports field lighting, street and area lighting, golf course electrical systems, custom residences, and various dry utility designs. Leo joined the Design West team in 2005 and in 2009 took over the responsibility of running the electrical production. Apart from standard electrical and lighting design, he oversees the electrical BIM design team; solar photovoltaic design; specialized analyses including arc flash, coordination studies and load flow evaluation; all low voltage applications including fire alarm, security, data and signal, and A/V systems. His continuing education in the field of the electrical engineering and lighting design, along with his membership and board position for the IESNA (Illuminating Engineers Society of North America) keep him up to date with the latest lighting and energy efficient technologies. Beyond his technical prowess, it is Leo's dedication to maintaining long-term client relationships and his diverse background that have made him such a valuable asset to the Design West team. This dedication to customer service is evident in the work ethic and the character displayed by his whole team.

Education

Bachelor of Science Degree,
Electrical Engineering, Cal Poly
Pomona

Registration

California P.E. #E19480

LEED AP BD+C

IESNA Board Member

IEEE

Relevant Experience

- Niland Public Safety Building
- City of Redlands Fire Station #1 Historic Renovation
- L.A. County Fire Station #158 Complete Renovation
- Fontana Police Department Renovation
- Ben Clark Sheriff Training Center and EOC
- Upland Fire Station 163 Service Upgrade
- San Bernardino Co. Fire Station #91



Michael Stewart, FPE, MICET III, CFPS

Fire Protection Department Head | Design-West Engineering

Michael has over 19 years of experience in design, project management and consulting in fire protection. He is known for progressing protocols and optimizing efficiency. He has experience successfully handling complex, high-profile projects with many stakeholders. He also has civil and mechanical engineering knowledge, which compliments his perspective and approach. His area of expertise and credentials include hazardous storage, risk assessment, NFPA building and fire codes, international building and fire code, life safety plans/code analysis, smoke modeling, suppression systems, standpipe systems, fire alarm systems, fire pumps and hydraulic analysis.

Education

Master of Science, Fire Protection
Engineering, Cal Poly San Louis
Obispo, College of Engineering

Bachelor of Science, Mechanical
Engineering, Oregon Institute
of Technology, Portland

Registration

California P.E. #FP1997

Washington P.E. #55146

NICET III #114832

CFPS #3751

Relevant Experience

- Thousand Oaks HS STEM Building
- Box Springs ES Kitchen Modernization
- Evergreen Admin Facility, JBLM
- Tacoma Union Station, Federal Court House
- NAVFAC SW, F-35 Flight Simulator
- John Day Hydro Electric Dam Fire Protection Renovation
- Merced Falls Hydro Electric Dam Fire Risk Assessment
- Portland State University School of Business
- Portland State University Peter Scott Center

Wiseman + Rohy

Structural Engineer



Wiseman + Rohy Structural Engineers has been involved with the design of office and educational buildings for nearly four decades. We embrace these projects, as they allow us to focus on efficiency of the structure and usefulness to the occupant. We believe in exemplary service to the team and the client through our experience in these types of buildings, clear and frequent communication, and attention to detail. Through the principals of Lean Design, we are successful in identifying required information early, scheduling tasks in an order to accomplish goals without backtracking, and coordination with all other consultants to ensure these values are used not just within our firm but throughout the team. This approach dramatically reduces waste in time and materials and results in a better coordinated, higher efficiency building with a fast-moving construction phase.



Steve Rohy

Principal in Charge | Wiseman + Rohy

Steve is directly involved with overseeing the production of drawings from initial client contact through efficient layout to management of the project. He establishes and enforces Quality Control and Quality Assurance guidelines for the company and projects. He develops company-wide standards to maintain consistent and efficient engineering, and implements 'Lean Thinking' principles for multi-disciplinary efficiency.

Education

Bachelor of Science Degree, Architectural Engineering (Structural),
Cal Poly San Louis Obispo

Registration

Registered Structural Engineer, CA #S-4341, ID #S-11706
Registered Civil Engineer, CO #39469, OR #75625, WA #42184



Jim Wiseman

Principal | Wiseman + Rohy

Jim will be directly involved with overseeing the production of drawings from initial client contact through efficient layout to management of the project. He will establish and enforce Quality Control and Quality Assurance guidelines, and is responsible for developing company-wide standards to maintain consistent and efficient engineering.

Education

Bachelor of Science Degree, Architectural Engineering (Structural),
Cal Poly San Louis Obispo

Registration

Registered Structural Engineer, CA #S-4215, AZ #36003, NV #15715
Registered Civil Engineer, FL #56622, GA #26920, IA #16463, MI
#47562, NM #17082, TX #97765
National Council of Engineering Examiners #19303



Community Works Design Group (CWDG)

Landscape Architect

Community Works Design Group was established in 1985 and provides municipal planning services throughout the State of California. The firm focuses on Park, Recreation, Streetscape and Trails Planning projects. CWDG has a ready and available staff of nine highly professional individuals. We draw on four Licensed Landscape Architects, two LEED/ SITES Accredited Professionals, as well as an ISA Certified Arborist, Certified Irrigation Designer/ Certified Landscape Irrigation Auditor, and a Certified Access Specialist (CASp). Community Works Design Group does what its name implies - it assists communities with the design of projects that Work. Our focus is on municipal projects and has been since day one in 1985.



Scott Rice ASLA, LEED AP, CASP

Principal | Community Works Design Group (CWDG)

Scott Rice is President and Managing Principal of CWDG. He draws on previous work experience in graphic design and golf course maintenance to integrate high aesthetic quality in balance with functional, cost-effective designs. His focus is in Public Works projects for various municipalities throughout the State, including Park Planning of various scales, as well as median and parkway landscape, and LMD/ CFD planning. Specialized areas of involvement includes Skate Parks. He has served as the City Landscape Architect for the City of Highland continuously since 2005.

Education

Bachelor of Science Degree, Landscape Architecture, Cal Poly Pomona

Registration

Licensed Landscape Architect, CA #5111, NY #2645

Certified Access Specialist, CA #CASp-709

Appointments

Vice Chair, San Bernardino County Building and Safety Appeals Board and Member of Physically Disabled Access Appeals Board

Relevant Experience

City of Highland Police Station and Landscape Renovations for Fire Stations 1, 2, and 3. (Review and Approval as City Landscape Architect)



Daniel Burkhart

Senior Landscape Architect | CWDG

Daniel Burkhart is a Senior Project Manager and Technical Director for our firm. He is responsible for reviewing all technical aspects of construction drawings and specifications, and working in concert with our design director to ensure that all of our firm's designs are constructable and can be maintained within our clients' available resources. Prior to joining our firm, Dan served as a Senior Landscape Inspector for the City of Yorba Linda. He also has more than a decade of experience as an estimator and foreman for large-scale landscape contractors.

Education

Bachelor of Science Degree, Landscape Architecture, Cal Poly Pomona

Registration

Licensed Landscape Architect, CA #6092

ISA Certified Arborist, WE-11637A

Relevant Experience

City of Indio Public Safety Campus (In Progress)

Ecotype Consulting was established with the fundamental belief that ecology, economy, and society are the three legs that support sustainability. For that reason, we take a holistic and pragmatic approach to the practice. Sustainable design cannot be viewed solely through the lens of environmental responsibility; it must be practical, affordable, accessible, educational, and human-centered. Sustainable design is also a multi-disciplinary effort, which requires open, direct, and focused communication.

Ecotype Consulting provides organizations with the unique expertise necessary to plan, design, build, certify, and occupy environmentally responsible and energy efficient green buildings. Our primary roles are to optimize the communication effort between project stakeholders, ensure adherence to project sustainability goals, and to assure the quality of the design, calculations, documentation, and technical analyses that demonstrate compliance with green building standards.

Ecotype Consulting has been designated a LEED Proven Provider organization by the US Green Building Council, in recognition of our outstanding work in providing consistent and complete LEED documentation. With this designation, we can expedite the LEED review process on qualifying projects, dramatically shortening the often-lengthy review process.



Eric Shamp

Principal | Ecotype

Eric is the principal and founder of Ecotype Consulting. He is a licensed architect, dedicating his career to the practice of sustainable design and development for the past twelve years. He founded Ecotype Consulting to respond to the ever-increasing demand for green building consulting, green and energy code compliance, and commissioning in California. He provides organizations with the unique expertise necessary to plan, design, build, certify, and occupy environmentally responsible and energy efficient “green” buildings. His prime directive is to optimize the communication effort between project stakeholders, ensure adherence to project sustainability goals, and take responsibility for the necessary calculations, documentation, and technical analyses that can often distract the project team from their critical tasks.

Education

Bachelor of Arts, Double Major
in Architecture & Art History, Rice
University

Registration

LEED AP BD+C

Registered Architect CA #C29013

Accredited Lighting Acceptance Test
Technician TC-A814192

ASHRAE-Certified Building
Commissioning Professional (BCxP)

American Institute of Architects,
Member

US Green Building Council, Member

ASHRAE, Member

CABEC, Member

Financial Capacity

Tilden-Coil Constructors has enjoyed moderate and controlled growth for over 83 years and we continue to do so by making wise investments and working with only clients that understand our company and our value proposition.

Financial Strength

Tilden-Coil Constructors, Inc. was founded in 1938. We are locally owned and operated and serve public agencies throughout Southern California. Because of our size and ownership structure we do not focus on short-term profits or creating shareholder value - we focus on service and the longevity of our great organization. As an organization, we make careful business decisions, invest wisely, and choose to do business with clients who understand and value what we offer and how we operate. We do not chase cyclical “boom and bust” markets, we maintain a diverse workload of carefully chosen clients to serve, which represent education, civic/government, private institutional, and healthcare work. This approach has led to tremendous stability and steady growth throughout the decades. In fact, Tilden-Coil grew at a steady pace throughout the Great Recession. Not only did we have zero layoffs, we actually grew our team by a significant amount. This is in contrast to other firms that did not weather this storm the same way.

Gross Revenues

2020: \$84,610,000 gross revenue

2019: \$107,650,000 gross revenue

2018: \$80,730,000 gross revenue

*Note: Our annual revenues fluctuate based upon the project delivery methods our clients choose. **Tilden-Coil completes around \$250 million annually in project volume.**

Audited Financials

Our audited financials have been provided in a separate attachment.



Skilled Labor Force Availability

We have a system in place to ensure a Skilled and Trained Workforce in compliance with Public Contract Code Section 2600.

Project Commitment

The Design-Build Delivery method is authorized pursuant to Public Contract Code 22160-22169 and Section 22164 specifically requires the Design-Build Team to utilize a skilled and trained workforce to perform all work on the project that falls within an apprenticeable occupation in the building and construction trades, in accordance with Section 2600. We have experience meeting these requirements on many of our public works projects. Tilden-Coil will not self perform any work on the projects and therefore will have no directly employed tradesmen. Our specialty trades worker commitment is below.

Our team will meet the skilled and trained workforce requirements outlined in Section 2600 which can be summarized as follows:

60% of the skilled journey persons employed to perform work on the project are graduates of an apprenticeship program, except for occupations outlined in 2601 (d) (2) (A) which shall be 30%.

Our Plan

Our plan to achieve the Skilled Labor Force requirements is outlined in Project Proposal Section.



Yavapai County Fire Department Fire Station 41 North Shoreline Fire Station 49

Safety Record

Safety is ingrained within Tilden-Coil company culture, and is supported by our rigorous staff training, required pre-start safety meetings for all subcontractors, and tracking of data to identify where improvements can be made.



Experience Modification Rate (EMR)

2021 .62
2020 .63
2019 .74
Average = .66

Total Recordable Injury & Illness Rate

2021 0 incidents
2020 2 incident
2019 0 incidents
Average = 0.67

Days Away From Work Cases

2021 0 incidents
2020 0 incidents
2019 0 incidents
Average = 0

Dispute Resolution

Is respondent a party to an alternative dispute resolution system as provided in Section 3201.5 of the labor code?

Yes No

Safety Program

Our Safety program consists of multiple parts.

- We have a company safety committee that reviews and establishes overall safety policy for all staff and all projects.
- We have comprehensive training for our staff. We require Subcontractor Preparatory Meetings for all subcontractors to ensure they have a safe start.
- We have a regimen of project walks, inspections, and audits which ensures layers of redundancy in site inspections.
- We also have a means for tracking the data from our safety walks, inspections, and audits to track leading indicators.

This monitoring allows us to enforce accountability and apply force where needed to correct and address problem areas. The accountability is possible because of firm subcontract inclusions that are above and beyond OSHA standards. These subcontract inclusions allow Tilden-Coil to take immediate action if the subcontractors are found non-compliant.



PROJECT PROPOSAL

Riverside County Modular Fire Station 41
North Shore & Fire Station 49 Lake Tamarisk

 **Tilden-Coil**
CONSTRUCTORS™
Building with Integrity Since 1978

 **HOLT**
ARCHITECTURE

Design Excellence

Our objective is to provide the County flexibility by providing multiple design solutions.

Design Options

Our design-build team is in the unique position to offer either modular construction, utilizing our exclusive partner in modular construction, Silver Creek Industries, or conventional construction. There are benefits to each method, and our team will guide the County through the evaluation process to determine which best meets the needs of the Fire Department.

Conventional Option (assuming wood frame)	Modular Option
<p>Cost: Conventional construction is typically viewed as more expensive when compared to modular construction for a building of this type. This is because the modular building is largely constructed off-site and is not subject to prevailing wages.</p>	<p>Cost: Modular construction for a typical building is roughly 17% less expensive (trade costs) than conventional construction. However, the cost to upgrade the modular design and construction to the level of an essential services building means the savings for this project are likely to be around 10%. Savings are achieved through off-site manufacturing. The most cost-effective modular approach would be a two-story building and we can explore this approach with the County upon selection.</p>
<p>Time: The design time line will be 4 months, and could be reduced by the use of Holt's previous design for North Shore. Conventional construction will take approximately 9 months with both fire stations running concurrently. Overall delivery of the project will be approximately 13 months excluding weather and County delays.</p>	<p>Time: The design time line will be approximately 5 months (one additional month due to new design) and modular fabrication will take approximately 6-8 weeks, which can run concurrent with site work. Overall construction will take approximately 9 months. Overall delivery of the project will be approximately 14 months excluding weather and County delays.</p>
<p>Scope: Inherent within conventional construction is more design flexibility with building layout, floor plan, and overall program. There are no limiting factors to conventional construction including the design of the building type and systems.</p>	<p>Scope: Modular construction, although able to provide the same program, is less flexible since spaces must conform to the modular manufacturing process. Additionally, the selection of non standard finishes and materials can increase costs. The bay stations will have to be constructed conventionally under this approach.</p>
<p>Life Cycle: Conventional construction will be able to achieve a 50 year life per the County requirement. There is not a significant difference in the life span of the two options for this type of building. Additionally, there is no difference in the life cycle of the building systems between the two options.</p>	<p>Life Cycle: Modular construction can theoretically achieve a 50-year life span depending on use and maintenance. However, it is important to note that modular construction is not yet a proven method to achieve a 50 year life span for a fire station.</p>

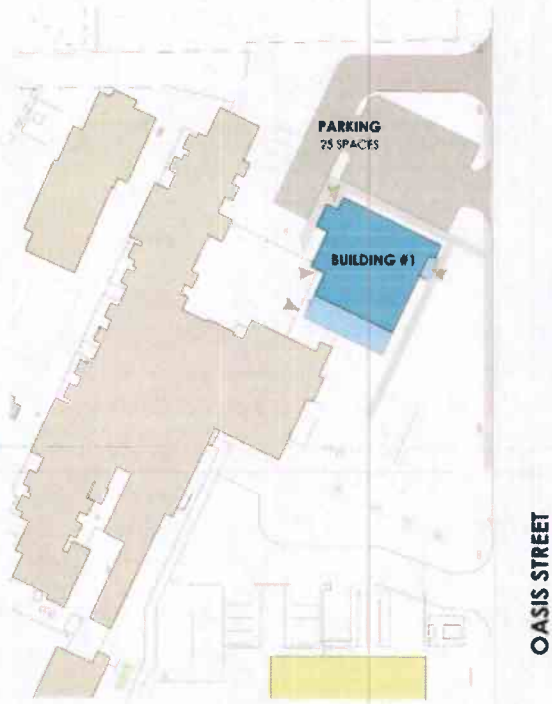
Expedited Design

In 2010 Holt Architecture completed the design for the North Shore Fire Station. The design, which was approved by the County, was completed in collaboration with the County Fire Department and if chosen to be "refreshed" (i.e. updated to meet new code requirements) without significant changes, the County could realize the following benefits:

1. Reduced design fees
2. Overall reduction in the project time line of 1-2 months
3. The North Shore design can be adapted to the Lake Tamerisk site

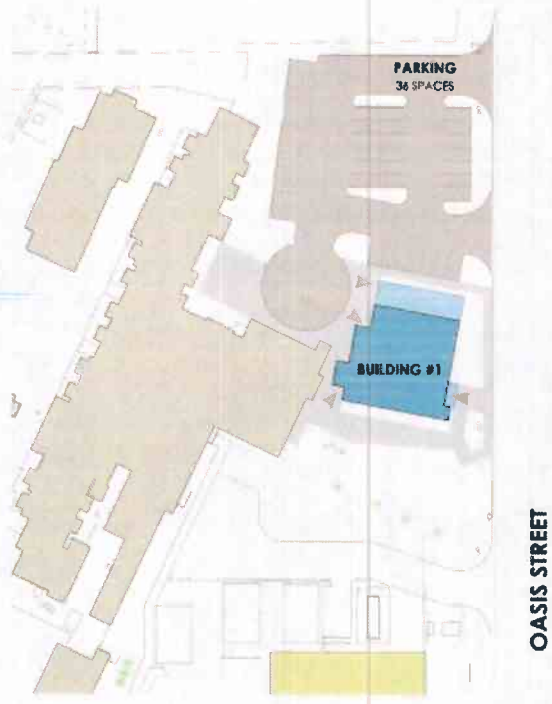
Approach to Site Plan Development

BUILDING #1 SITE OPTION - E

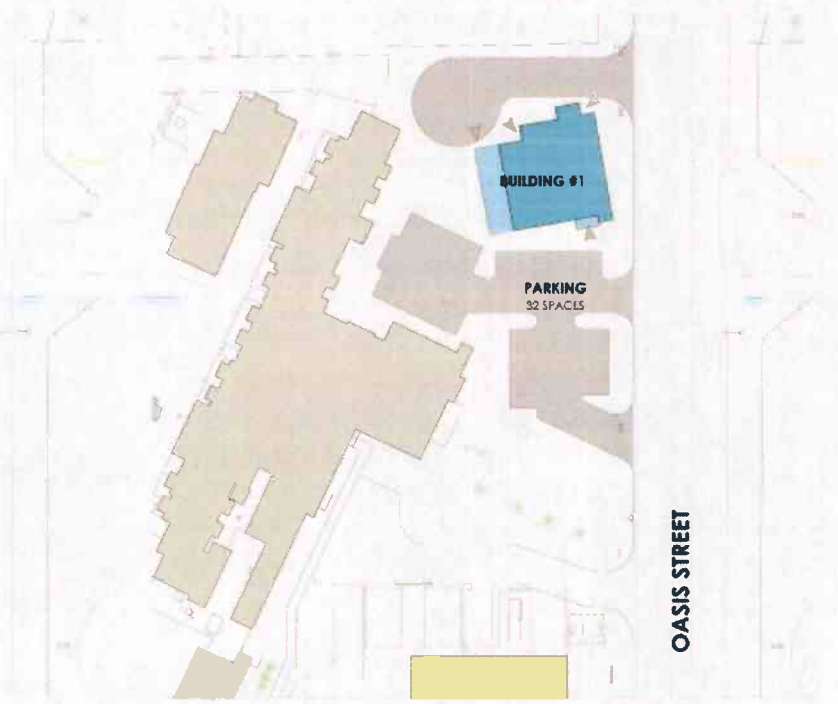


Once macro spatial relationships have been established, we provide our clients multiple site concepts. In this stage, we look at how the program best suits the site to meet the client's needs.

BUILDING #1 SITE OPTION - F



BUILDING #1 SITE OPTION - G



Approach to Floor Plan Development



Keeping consistent with our process, a similar approach is used as we work through floor plan concepts.

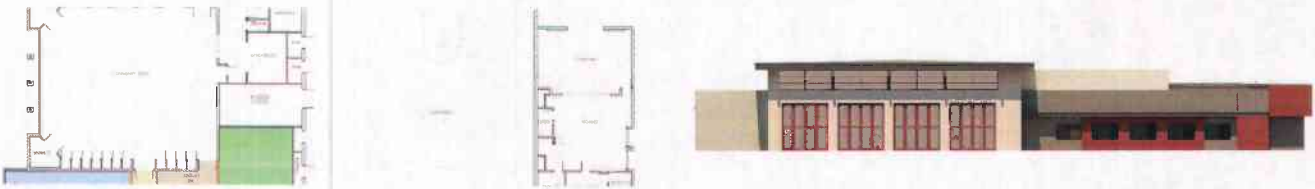


We present multiple options based on the Client's established program and site concept to maximize project efficiencies, and begin to solidify a 2D plan that's acceptable to the needs of all stakeholders.



Approach to Exterior Development

Once site and floor plans meet our client's needs, we start the transition into 3 dimensions. Through various 3D modeling tools, we help our client make visual and experiential design decisions by providing multiple design types to establish an overall style. The process begins with general massing and transitions into other media such as renderings, model tours, and other documents that easily communicate the client's design intentions.



Colors and materials are other essential decisions clients need to make once form and function have been solidified. We understand these big budget decisions can be difficult with a drawing and paint sample, so we take it a step further and provide multiple photorealistic rendering options so the client can see the materials in a simulated lifelike application. This helps the client make the best decision without any surprises at the end of a project.



3D modeling tools are essential throughout our design process. We want the client to experience the spaces we design and feel confident about the decisions their making throughout the project.



Approach to Further Exterior Development



Designing in 3D is also extremely beneficial in Cost Control and Value Engineering due to the high level of analysis available when experiencing the spaces before they're built.



Approach to Further Interior Development



We are extremely excited for the opportunity to help you accomplish your vision. Clients consistently comment about our ability to find creative solutions on tight budgets and we've accomplished this across multiple styles, scales, markets and timelines. Our proven track record makes us confident we can help you accomplish a design that's technically sound, aesthetically pleasing and economically feasible.

Design Visualization and Communication

Example 1: Public Lobby



Scan the QR Code with your phone to see how effective and simple design visualization can be!

Example 2: Science Lab with overhead MEP shown



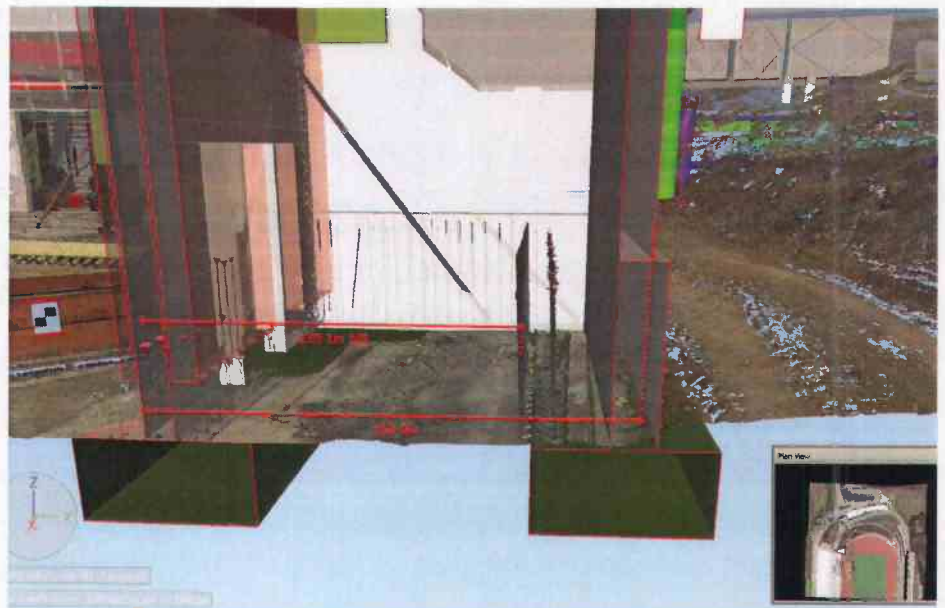
Utilizing BIM During Construction

When the project is moving out of design and into construction, our team can take advantage of the building information model in many ways. This may include clash detection, trade coordination, detailing of shop drawings, fabrication documents, and RFI's. The Building Information Model can also be utilized to facilitate a collaborative project environment between all construction trades from the start of construction through the as-built process.

Our quality control process also utilizes the Building Information Model through construction. Utilizing a combination of our in house tools such as our 3D laser scanner or our total station; our team is able to verify with precise accuracy in-field installations. We can align precise point cloud data gathered from our laser scanner with civil survey control and continually monitor through the use of our own digital total station. These tools, when combined with the Building Information Model, allow us to identify coordination or quality control issues in the field immediately. When issues are discovered, our team can provide quick solutions that can potentially save significant time and cost.

For example, recently during the construction of the Mt. San Antonio College Athletics Complex Project, our team's proactive approach to quality control revealed from a 3D scan of the construction site to verify construction layout that a wall foundation was installed in the wrong place by the subcontractor.

The augmented reality view (**pictured right**), shows the coordinated building information model overlaid with real-world conditions in a 3D environment. Having this data accessible quickly allowed our team to analyze options to fix the condition without impacting the schedule. The fix was implemented with the subcontractor quickly, prior to the wall being poured, mitigating a potential delay.



Commitment to Skilled and Trained Workforce

We have a system in place to ensure a Skilled and Trained Workforce in compliance with Public Contract Code Section 2600.



Project Commitment

60% of the skilled journey persons employed to perform work on the project are graduates of an apprenticeship program, except for occupations outlined in 2601 (d) (2) (A) which shall be 30%.

Our Plan

Tilden-Coil is required to utilize a skilled and trained workforce in compliance with PCC Section 2600 on many public works projects and we have developed a system to ensure all requirements are met, tracked and reported on monthly.



1. We have included key subcontractors on our design-build team who understand the requirements and have a history of meeting them and providing the required monthly documentation.
2. We will include within the bid documents all skilled workforce requirements, including specific reports that we will require subcontractors to complete daily. Daily reporting and record keeping by subcontractors regarding their workforce on site will be the key to enforcement, adjustment and monthly reporting. Daily record keeping will be stored digitally, and utilized to generate Tilden-Coil's monthly report.
3. Weekly numbers will be presented and discussed in weekly foremen's meetings.
4. If carpenters are ever in danger of falling behind in a given month, Tilden-Coil has the ability to supplement with our own carpenters that meet the apprenticeship requirements.
5. If we feel a specific small trade may have difficulty in meeting the skilled workforce requirement, we may consider self performing the work, or supplementing the workforce ourselves in order to maintain compliance.



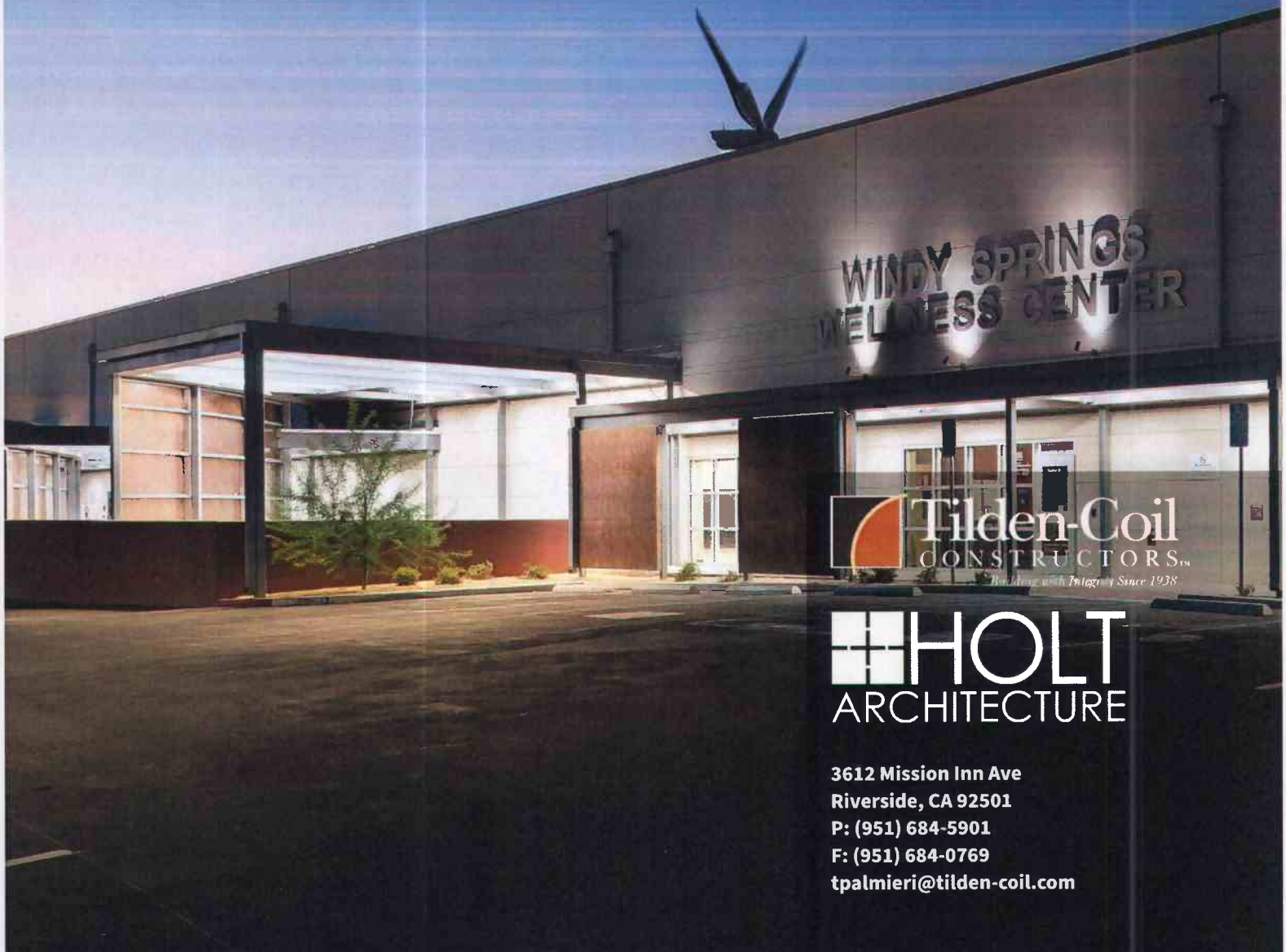
Enhanced Tracking

We track every subcontractor and person onsite based upon certified payroll and our daily work reports; noting if they are a registered apprentice (journeyman based on hours or graduated.) We track based upon individual and hours so if a subcontractor falls out of compliance in the month we can communicate what they need to do proactively, rather than addressing it reactively once the month is complete.

EXHIBIT D-2

RIVERSIDE COUNTY MODULAR FIRE STATION 41 NORTH SHORE & FIRE STATION 49 LAKE TAMARISK

Fee Proposal



 **Tilden-Coil**
CONSTRUCTORS™
Building with Integrity Since 1938

 **HOLT**
ARCHITECTURE

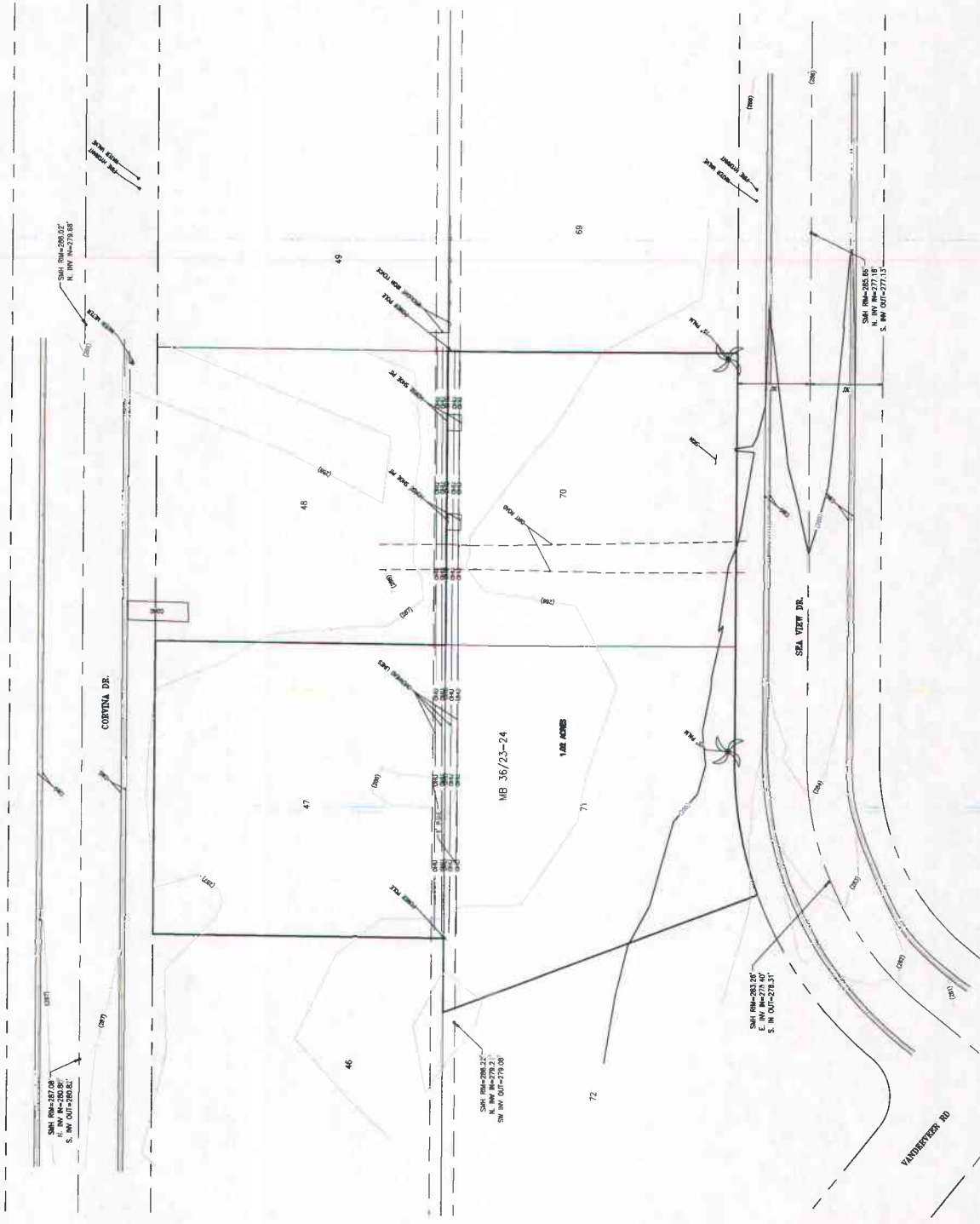
3612 Mission Inn Ave
Riverside, CA 92501
P: (951) 684-5901
F: (951) 684-0769
tpalmieri@tilden-coil.com

Fee Proposal

	Conventional Construction		Modular Construction	
	Fire Station 41 North Shore	Fire Station 49 Lake Tamarisk	Fire Station 41 North Shore	Fire Station 49 Lake Tamarisk
Design	\$310,000	\$235,000	\$220,000	\$175,000
Preconstruction	\$37,014	\$37,014	\$37,014	\$37,014
Construction General Conditions	\$347,920	\$345,682	\$347,920	\$345,682
Overhead and profit %	6%	6%	6%	6%
Overhead and Profit \$ Based on RFP Budget	\$222,866	\$218,232	\$217,466	\$214,632
Subtotal Fee Proposal	\$917,800	\$835,927	\$822,400	\$772,327
Add Alternates				
Add for LEED Certification Design	\$94,000	\$54,000	\$94,000	\$54,000

Clarifications and Assumptions

- Proposal is based upon a \$10 million budget per the RFQ. Proposal is subject to change based upon the final construction cost and project schedule.
- Bonds, insurance, contingency and general requirements will be included within the contract price at bid time.
- General Conditions are based upon 9 total months of concurrent construction and include contractor labor and construction office support costs (excluding power and temporary utilities).



SW 1/4 Sec 28, T10N, R10E, S14W
 S. 1/4 Sec 28, T10N, R10E, S14W

SW 1/4 Sec 28, T10N, R10E, S14W
 S. 1/4 Sec 28, T10N, R10E, S14W

SW 1/4 Sec 28, T10N, R10E, S14W
 S. 1/4 Sec 28, T10N, R10E, S14W

SW 1/4 Sec 28, T10N, R10E, S14W
 S. 1/4 Sec 28, T10N, R10E, S14W

SW 1/4 Sec 28, T10N, R10E, S14W
 S. 1/4 Sec 28, T10N, R10E, S14W



THIS MAP DOES NOT SHOW THE EXISTENCE OR LOCATION OF
 ALL ENCUMBRANCES WHICH MAY ENCOMBER THE SITE.
 THIS SURVEYING BASED ON AVAILABLE RECORD INFORMATION AT THE TIME OF SURVEY.
 NO VERIFICATION OF THE INFORMATION WAS MADE BY THE SURVEYOR.
 REFER TO THE REFERENCE INFORMATION AS INDICATED ON THE MAP.

REVISIONS	DATE	BY

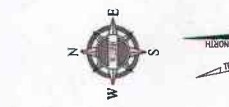
FIRE STATION 41
 REVERSHIDE COUNTY

BASE MAP/CONTROL SURVEY MAP
 LOTS 47, 70 & 71, MB 3/6, PAGES 23-24
 LYING IN SECTION 34, TOWNSHIP 7 SOUTH,
 RANGER 7 EAST, S.E.M., REVERSHIDE COUNTY, TX

DATE: 04/13/2023
 SCALE: AS SHOWN
 SHEET: 2 OF 2
 SHEETS: 2
 DRAWN: J. B. B. (10/11/2022)
 CHECKED: J. B. B. (10/11/2022)
 SURVEYED: J. B. B. (10/11/2022)
 FILE NO: 2023-0009



- SURVEYOR'S NOTES:**
- THE BASIS OF BEARINGS IS GRID NORTH PER CALIFORNIA COORDINATE SYSTEM (NAD 83) FROM CORS STATION THPS (TP 1) (NAD75) AND THPS2 (TP 1) (NAD75).
 - INDICATES FOUND MONUMENTS AS NOTED.
 - ALL DIMENSIONS ARE MEASURED IN FEET AND DECIMAL FRACTIONS THEREOF.
 - ALL BEARINGS READ IN A NORTHERLY DIRECTION UNLESS OTHERWISE NOTED.
 - ALL DISTANCES ARE GROUND AND GROUND DISTANCES CAN BE OBTAINED BY MULTIPLYING GROUND DISTANCES BY A CORRECTION FACTOR OF 0.99994116.
 - TOTAL AREA OF THE SUBJECT PROPERTY IS 1.50 ACRES, MORE OR LESS.
 - THIS SURVEY WAS PERFORMED WITH TRIMBLE S8 TOTAL STATIONS & TRIMBLE R12 GPS RECEIVERS, AND COMPLETED ON MARCH 31, 2021.
 - () INDICATES RECORD OR CALCULATED DATA PER RS 142/91, UNLESS OTHERWISE NOTED.
 - STRIKES SHOWN ON THE SURVEY ARE NOT DEDUCTED TO SCALE.



BENCHMARK DATA:
 BENCH MARK: LAL 1 751 (CROSS BENCH MARK)
 ELEVATION = 715.0 FEET (VERTICAL)
 DATUM = NAD 83

RECORD NOTE BY AN ORIGINAL SURVEYOR (1983) IS LOCATED APPROXIMATELY 77 FEET FROM THE CORNER OF LOT 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 5.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104.

RECORD NOTE BY GEOLOGIC 2010 (2010) IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104.

(CONVERSION FACTOR TO HMD 29 = -2.23 FEET)

BASE OF BEARINGS:
 THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM (CORS), ZONE 8, BASED LOCALLY ON CONTROL STATIONS SHOWN ON THIS MAP ARE GRID QUANTITY BEARINGS AND DISTANCES FROM THE SURVEYOR'S RECORD. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 5.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104.

DISTANCES MAY BE OBTAINED BY MULTIPLYING THE GROUND DISTANCE BY A CORRECTION FACTOR OF 0.99994116. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 5.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104. THE SURVEYOR'S RECORD IS LOCATED APPROXIMATELY 1.5 FEET SOUTHWEST OF CORNER 104.

WITH COORDINATES OF N. 271.800432, E. 0.0244000, USING AN ELEVATION OF 732.422 FEET, THE CONVERGENCE ANGLE AT POINT #1 IS 0.00781830°.

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2213004.43	8023743.08	726.07	SET MARKER, TUSH
2	2213008.08	8023743.08	725.07	PT. 1000000 ON 7.75'
3	2213010.08	8023743.08	724.07	PT. 1000000 ON 7.75'
4	2213012.08	8023743.08	723.07	PT. 1000000 ON 7.75'
5	2213014.08	8023743.08	722.07	PT. 1000000 ON 7.75'
6	2213016.08	8023743.08	721.07	PT. 1000000 ON 7.75'
7	2213018.08	8023743.08	720.07	PT. 1000000 ON 7.75'
8	2213020.08	8023743.08	719.07	PT. 1000000 ON 7.75'
9	2213022.08	8023743.08	718.07	PT. 1000000 ON 7.75'
10	2213024.08	8023743.08	717.07	PT. 1000000 ON 7.75'
11	2213026.08	8023743.08	716.07	PT. 1000000 ON 7.75'
12	2213028.08	8023743.08	715.07	PT. 1000000 ON 7.75'
13	2213030.08	8023743.08	714.07	SET MARKER, TUSH

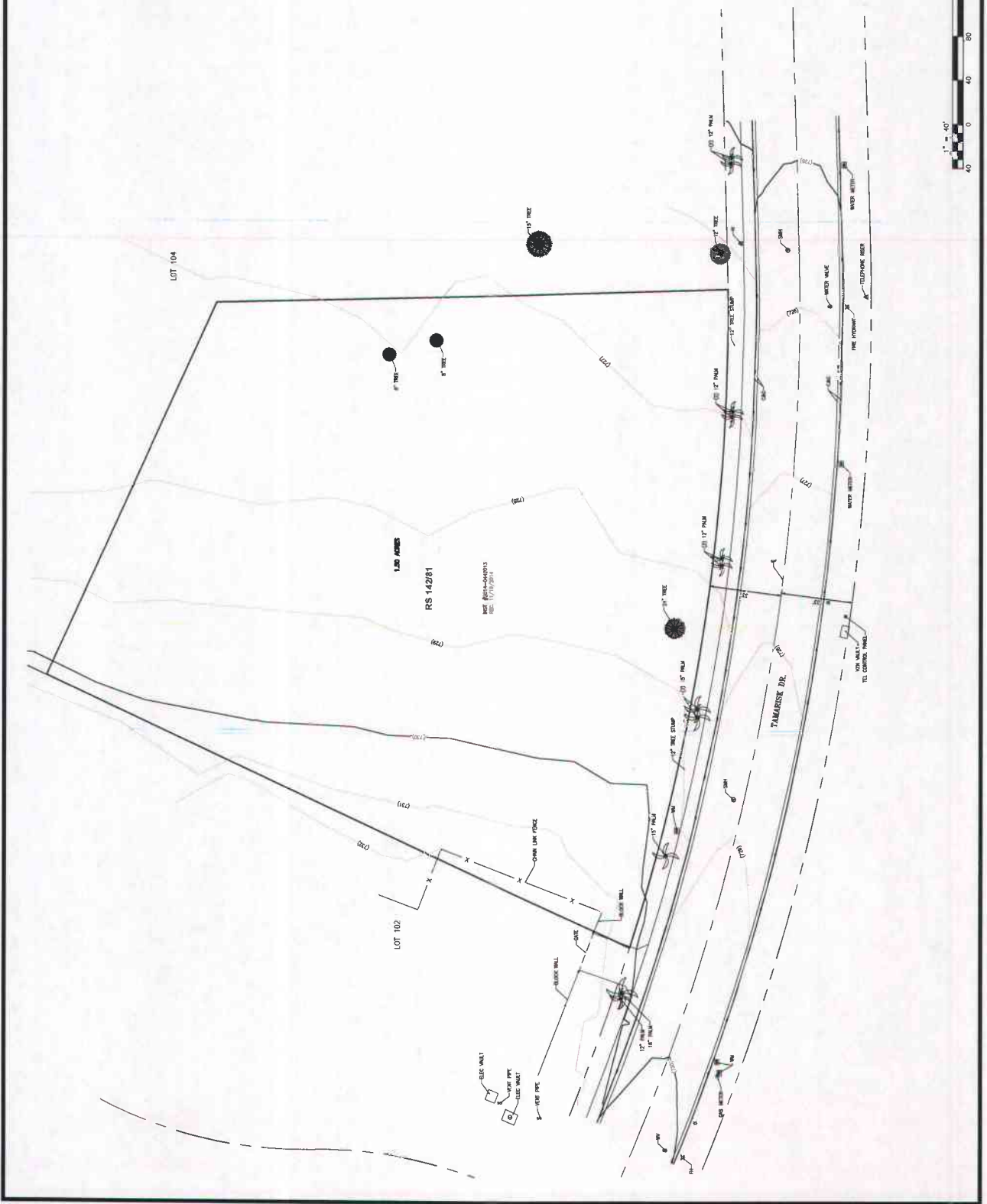


THIS MAP DOES NOT SHOW THE EXISTENCE OR LOCATION OF ALL UTILITIES WHICH MAY ENCUMBER THE SITE. THIS SURVEY WAS BASED ON AVAILABLE RECORD INFORMATION AT THE TIME OF SURVEY. NO VERIFICATION WAS MADE OF THE EXISTENCE OR LOCATION OF ANY UTILITIES. THE SURVEYOR HAS VERIFIED TO THE BEST OF HIS KNOWLEDGE AND BELIEF THAT THE INFORMATION IS CORRECT AND ACCURATE.

FIRE STATION 49
 RIVERSIDE COUNTY

BOUNDARY/TOPOGRAPHIC SURVEY MAP
 LIVING IN SECTION 14, TOWNSHIP 5 SOUTH,
 RANGE 15 EAST, S.E.M., RIVERSIDE COUNTY, CA

DATE: 03/31/2021
 DRAWN BY: J. B. B. B.
 CHECKED BY: J. B. B. B.
 SCALE: 1" = 40'
 SHEET NO. 2 OF 2
 SEE FILE 0911



THIS MAP DOES NOT SHOW THE EXISTENCE OR LOCATION OF ALL EASEMENTS WHICH MAY DISTURB THE SITE. THIS SURVEY WAS BASED ON AVAILABLE RECORD INFORMATION AT THE TIME OF SURVEY. THE SURVEYOR HAS NOT CONDUCTED A VISUAL INSPECTION OF THE SITE NOR VERIFIED TO THE REFERENCE INFORMATION AS INDICATED ON THE MAP.



PROJECT:	DATE:	BY:
FIRE STATION 49 REVERSIDGE COUNTY	11/19/2020	[Signature]
BOUNDARY/TOPOGRAPHIC SURVEY MAP		
FOR THE PART OF THE EASEMENT		
LYING IN SECTION 14, REVERSIDGE & SOUTH,		
RANGE 15 EAST, S.B.M., REVERSIDGE COUNTY, CA		
SCALE: 1"=40'	DATE: 11/19/2020	SHEET NO. 2
DESIGNED: [Signature]	PLANNED: [Signature]	OF 2 SHEETS
DRAWN: [Signature]	CHECKED: [Signature]	SHEET NO. 2
DATE OF REV. 1/A	BY: [Signature]	NO. OF SHEETS 2
DATE: 11/19/2020	BY: [Signature]	NO. OF SHEETS 2
DATE: 11/19/2020	BY: [Signature]	NO. OF SHEETS 2



11/22/21 09:59 AM 03/15/2021 12:01:43 PM 03/15/2021 12:01:43 PM 03/15/2021 12:01:43 PM 03/15/2021 12:01:43 PM

EXHIBIT F-1

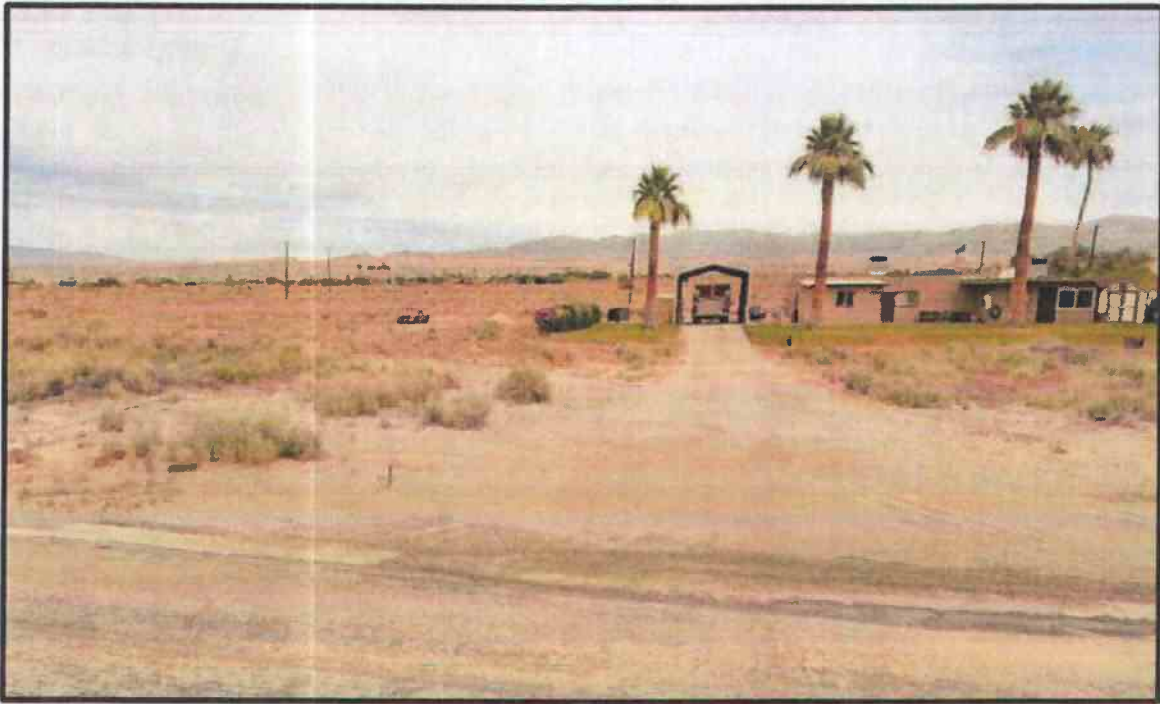
Geotechnical Report

Proposed New Fire Station No. 41

99-065 Corvina Drive
North Shore, California

Prepared for:

County of Riverside Project Management Office
3133 Mission Inn Avenue
Riverside, CA 92507



Prepared by:

Landmark Consultants, Inc.
77948 Wildcat Drive
Palm Desert, CA 92211
(760) 360-0665

April 2021



780 N. 4th Street
El Centro, CA 92243
(760) 370 3000
landmark@landmark-ca.com

77-948 Wildcat Drive
Palm Desert, CA 92211
(760) 360 0665
gchandra@landmark-ca.com

April 9, 2021

Mr. Dominick Lombardi
County of Riverside Project Management Office
3133 Mission Inn Avenue
Riverside, CA 92507

**Geotechnical Report
New Fire Station No. 41
99-065 Corvina Drive
North Shore, California
LCI Report No. LP201055**

Dear Mr. Lombardi:

This geotechnical report is provided for design and construction of the proposed new fire station No. 41 located at 99-065 Corvina Drive in the unincorporated community of North Shore, California. Our geotechnical exploration was conducted in response to your request for our services. The enclosed report describes our soil engineering site evaluation and presents our professional opinions regarding geotechnical conditions at the site to be considered in the design and construction of the project.

Based on the geotechnical conditions encountered at the points of exploration, the project site appears suitable for the proposed construction provided the professional opinions contained in this report are considered in the design and construction of this project.

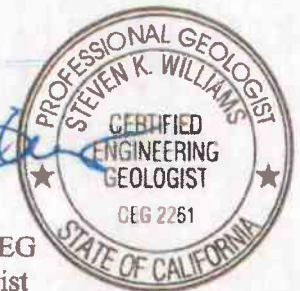
We appreciate the opportunity to provide our findings and professional opinions regarding geotechnical conditions at the site. Please provide our office with a set of the foundation plans and civil plans for review to insure that the geotechnical site constraints have been included in the design documents. If you have any questions or comments regarding our findings, please call our office at (760) 370-3000.

Respectfully Submitted,
LandMark Consultants, Inc.


Greg M. Chandra, PE, M.ASCE
Principal Engineer




Steven K. Williams, PG, CEG
Senior Engineering Geologist




Julian R. Avalos, GE
Senior Geotechnical Engineer



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LIST OF ATTACHMENTS

Tables:

Table 1: Summary of Characteristics of Closest Known Active Faults

Table 2: 2016 California Building Code (CBC) and ASCE 7-10 Seismic Parameters

Table 3: Soil Site Class Determination

Figures:

Figure 1: Regional Fault Map

Figure 2: Map of Local Faults

Figure 3: Fault Map Explanation

Appendices:

Appendix A: Vicinity and Site Maps

Appendix B: Subsurface Soil Logs and Soil Key

Appendix C: Laboratory Test Results

Appendix D: Liquefaction Evaluation and Seismic Settlement Calculations

Appendix E: Pipe Bedding and Trench Backfill Recommendations

Appendix F: Summary of Infiltration Testing

EXECUTIVE SUMMARY

This executive summary presents *selected* elements of our findings and professional opinions. This summary *may not* present all details needed for the proper application of our findings and professional opinions. Our findings, professional opinions, and application options are *best related through reading the full report*, and are best evaluated with the active participation of the engineer of record who developed them. The findings of this study are summarized below:

- The findings of this study indicate the site is underlain by interbedded sands and silty sand with near surface silty sand soils. The near surface sands are expected to be non-expansive. The subsurface soils are medium dense to very dense in nature.
- Groundwater was encountered in the borings at a depth of 19 to 22 feet during the time of exploration.
- Elevated sulfate levels were not encountered in the soil samples tested for this investigation. However, in consideration of the general corrosive environment in the vicinity, it is recommended that concrete should use Type V cement with a maximum water-cement ratio of 0.50 and a minimum compressive strength of 4,000 psi.
- Design soil bearing pressure of 1,800 psf. Differential movement of ½ to ¾ inch can be expected for slab on grade foundations placed on native soils.
- Evaluation of liquefaction potential at the site indicates that it is unlikely that the subsurface soil will liquefy under seismically induced ground-shaking due to the dense nature of the underlying saturated granular soils. No mitigation is required for liquefaction effects at this site.
- Seismic settlements of the dry sands have been calculated and are not expected to occur at the project site due to the dense nature of the subsurface soil.
- All reinforcing bars, anchor bolts and hold down bolts shall have a minimum concrete cover of 3.0 inches unless epoxy coated (ASTM D3963/A934). Hold-down straps are not allowed at the foundation perimeter. No pressurized water lines are allowed below or within the foundations.
- Pavement structural sections should be designed for subgrade soils (R-Value = 50) and an appropriate Traffic Index (TI) selected by the civil designer.

Section 1**INTRODUCTION****1.1 Project Description**

This report presents the findings of our geotechnical exploration and soil testing for the proposed new fire station No. 41 located at 99-065 Corvina Drive in the unincorporated community of North Shore, California (See Vicinity Map, Plate A-1). A site plan for the proposed development was provided by your office

The structure is planned to consist of slabs-on-grade foundations and steel-frame construction. Footing loads at exterior bearing walls are estimated at 2 to 5 kips per lineal foot. Column loads are estimated to range from 5 to 80 kips. If structural loads exceed those stated above, we should be notified so we may evaluate their impact on foundation settlement and bearing capacity. Site development will include building pad preparation, underground utility installation including trench backfill, concrete foundation construction, parking lot construction, and concrete driveway and sidewalk placement.

1.2 Purpose and Scope of Work

The purpose of this geotechnical study was to investigate the subsurface soil at selected locations within the site for evaluation of physical/engineering properties and liquefaction potential during seismic events. Professional opinions were developed from field and laboratory test data and are provided in this report regarding geotechnical conditions at this site and the effect on design and construction. The scope of our services consisted of the following:

- < Field exploration and in-situ testing of the site soils at selected locations and depths.
- < Laboratory testing for physical and/or chemical properties of selected samples.
- < Review of the available literature and publications pertaining to local geology, faulting, and seismicity.
- < Engineering analysis and evaluation of the data collected.
- < Preparation of this report presenting our findings and professional opinions regarding the geotechnical aspects of project design and construction.

This report addresses the following geotechnical parameters:

- < Subsurface soil and groundwater conditions
- < Site geology, regional faulting and seismicity, near source factors, and site seismic accelerations
- < Liquefaction potential and its mitigation
- < Expansive soil and methods of mitigation
- < Aggressive soil conditions to metals and concrete
- < Soil infiltration rates of the native soil for storm-water retention basin design

Professional opinions with regard to the above parameters are provided for the following:

- < Site grading and earthwork
- < Building pad and foundation subgrade preparation
- < Allowable soil bearing pressures and expected settlements
- < Concrete slabs-on-grade
- < Excavation conditions and buried utility installations
- < Mitigation of the potential effects of salt concentrations in native soil to concrete mixes and steel reinforcement
- < Seismic design parameters
- < Preliminary pavement structural sections

Our scope of work for this report did not include an evaluation of the site for the presence of environmentally hazardous materials or conditions, storm water infiltration, groundwater mounding, or landscape suitability of the soil.

1.3 Authorization

Mr. Dominick Lombardi of County of Riverside, Project Management Office provided authorization by written agreement to proceed with our work on March 11, 2021. We conducted our work in general accordance with our written proposal dated March 11, 2021.

Section 2

METHODS OF INVESTIGATION

2.1 Field Exploration

Subsurface exploration was performed on March 17, 2021 using 2R Drilling of Ontario, California to advance four (4) borings to depths of 26.5 to 51.5 feet below existing ground surface. The borings were advanced with a truck-mounted, CME 75 drill rig using 8-inch diameter, hollow-stem, continuous-flight augers. The approximate boring locations were established in the field and plotted on the site map by sighting to discernible site features. The boring locations are shown on the Site and Exploration Plan (Plate A-2).

A geo-technician observed the drilling operations and maintained logs of the soil encountered with sampling depths. Soils were classified during drilling according to the Unified Soil Classification System using the visual-manual procedure in accordance with ASTM D2488. Relatively undisturbed and bulk samples of the subsurface materials were obtained at selected intervals. The relatively undisturbed soil samples were retrieved using a 2-inch outside diameter (OD) split-spoon sampler or a 3-inch OD Modified California Split-Barrel (ring) sampler lined with 6-inch stainless-steel sleeves.

After logging and sampling the soil, the exploratory borings were backfilled with the excavated material. The backfill was loosely placed and was not compacted to the requirements specified for engineered fill. The existing asphalt surfaces were repaired with asphalt cold patch or quickset concrete with black pigment.

The subsurface logs are presented on Plates B-1 through B-4 in Appendix B. A key to the log symbols is presented on Plate B-5. The stratification lines shown on the subsurface logs represent the approximate boundaries between the various strata. However, the transition from one stratum to another may be gradual over some range of depth.

2.2 Laboratory Testing

Laboratory tests were conducted on selected bulk (auger cuttings) and relatively undisturbed soil samples obtained from the soil borings to aid in classification and evaluation of selected engineering properties of the site soils.

The tests were conducted in general conformance to the procedures of the American Society for Testing and Materials (ASTM) or other standardized methods as referenced below. The laboratory testing program consisted of the following tests:

- < Particle Size Analyses (ASTM D422)
- < Unit Dry Densities (ASTM D2937)
- < Moisture Contents (ASTM D2216)
- < Moisture-Density Relationship (ASTM D1557)
- < Chemical Analyses (soluble sulfates & chlorides, pH, and resistivity) (Caltrans Methods)

The laboratory test results are presented on the subsurface logs (Appendix B) and in Appendix C. Engineering parameters of soil strength, compressibility and relative density utilized for developing design criteria provided within this report were obtained from the field and laboratory testing program.

2.3 Soil Infiltration Testing

A total of two (2) infiltration tests were conducted on March 21, 2021 at the proposed location for the on-site storm-water retention basin as shown on the Site and Exploration Plan (Plate A-2). The infiltration tests were performed to the guideline from Design Handbook for Low Impact Development Best Management Practices, prepared by Riverside County Flood Control and Water Conservation District, Appendix A, Section 2.3, dated September 2011. The tests were performed using perforated pipes inside an 8-inch diameter flight auger borehole made to depths of approximately 5.0 feet below the existing ground surface, corresponding to the anticipated bottom depth of the stormwater retention basin. The pipes were filled with water and successive readings of drop in water levels were made every 30 minutes for a total elapsed time of 180 minutes, until a stabilization drop was recorded.

The test results indicate that the stabilized soil infiltration rate for the soil ranges from 1.7 to 2.25 inches per hour. A maximum soil infiltration rate of 1.7 inches per hour may be used for the on-site storm-water retention basin design. An oil/water separator should be installed at inlets to the stormwater retention basin to prevent sealing of the basin bottom with silt and oil residues. The field and conversion calculation worksheets are included in Appendix F. We recommend additional testing should be performed after the completion of rough grading operations, to verify the soil infiltration rate.

Section 3 DISCUSSION

3.1 Site Conditions

The project site is irregularly-shaped in plan view, is relatively flat-lying slopes gently to the southwest, and consists of three (3) parcels totaling approximately 0.95 acres of vacant land. The coordinates of the project site (latitude/longitude) are 33.5215N / -115.9384W. The project site is covered with scattered dry brush and weeds. No sand dunes or wind drifts are present. The existing Fire Station No. 41 is located adjacent to the east side of the project site. The site is bounded by Corvina Drive to the northeast and Sea View Drive to the southwest. Adjacent properties are flat-lying and are approximately at the same elevation with this site.

The project site lies at an elevation of approximately 216 to 218 feet below mean sea level in the Coachella Valley region of the California low desert. Annual rainfall in this arid region is less than 4 inches per year with four months of average summertime temperatures above 100 °F. Winter temperatures are mild, seldom reaching freezing.

3.2 Geologic Setting

The project site is located in the southern margin of Coachella Valley portion of the Salton Trough physiographic province. The Salton Trough is a geologic structural depression resulting from large scale regional faulting. The trough is bounded on the northeast by the San Andreas Fault and Chocolate Mountains and the southwest by the Peninsular Range and faults of the San Jacinto Fault Zone. The Salton Trough represents the northward extension of the Gulf of California, containing both marine and non-marine sediments since the Miocene Epoch. Tectonic activity that formed the trough continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of seismicity. Figure 1 shows the location of the site in relation to regional faults and physiographic features.

The surrounding regional geology includes the Peninsular Ranges (Santa Rosa and San Jacinto Mountains) to the south and west, the Salton Basin to the southeast, and the Transverse Ranges (Little San Bernardino and Orocopia Mountains) to the north and east. Hundreds of feet to several thousand feet of Quaternary fluvial, lacustrine, and aeolian soil deposits underlie the Coachella Valley.

The southeastern part of the Coachella Valley lies below sea level. In the geologic past, the ancient Lake Cahuilla submerged the area. Calcareous tufa deposits may be observed along the ancient shoreline as high as elevation 45 to 50 feet MSL along the Santa Rosa Mountains from La Quinta southward. Lacustrine (lake bed) deposits comprise the subsurface soils over much of the eastern Coachella Valley with alluvial outwash along the flanks of the valley.

3.3 Site Subsurface Conditions

Subsurface soils encountered during the field exploration conducted in March 2021 consist of dominantly medium dense to very dense, interbedded sands (SP), sands (SP-SM) and silty sands (SM) to a depth of 51.5 feet, the maximum depth of exploration.

Groundwater was encountered in the borings at approximately 19 to 22 feet during the time of exploration. There is uncertainty in the accuracy of short-term water level measurements, particularly in fine-grained soil. Groundwater levels may fluctuate with precipitation, irrigation of adjacent properties, drainage, and site grading. The groundwater level noted should not be interpreted to represent an accurate or permanent condition.

Groundwater records in the vicinity of the project site indicate that historic groundwater levels fluctuated between 15 and 25 feet below the ground surface between 1939 and 1961 according to a report "Coachella Valley Investigation" conducted by the Department of Water Resources (DWR, 1964).

3.4 Seismic Hazards

3.4.1 Faulting and Seismicity

The project site is located in the seismically active southern California region and is expected to be subjected to moderate to strong ground shaking during the design life of the project. A fault map illustrating known active faults relative to the site is presented on Figure 1, *Regional Fault Map*. Figure 2 shows the project site in relation to local faults. The criterion for fault classification adopted by the California Geological Survey defines Earthquake Fault Zones along Holocene-active or pre-Holocene faults (CGS, 2018b). Earthquake Fault Zones are regulatory zones that address the hazard of surface fault rupture.

A Holocene-active fault is one that has ruptured during Holocene time (within the last 11,700 years). A pre-Holocene fault is a fault that has not ruptured in the last 11,700 years. Pre-Holocene faults may still be capable of surface rupture in the future, but are not regulated by the A-P act. Table 1 lists known faults or seismic zones that lie within a 38 mile (60 kilometer) radius of the project site.

The site is not located within a currently designated Earthquake Fault-Rupture Hazard Zone (CGS, 2018b). *Review of the current Alquist-Priolo Earthquake Fault Zone maps (CGS, 2018a) indicates that the nearest mapped Earthquake Fault Zone is the San Andreas fault, located approximately 0.8 miles northeast of the site.* The possibility of ground surface rupture related to active faulting on currently unrecognized faults exists throughout the seismically active Coachella Valley region. However, given the current state of knowledge regarding seismicity of the Coachella Valley, the potential for fault rupture at the project site is considered low.

3.4.2 Historic Seismicity

The Coachella Valley is one of the most seismically active regions in the United States and has experienced several historical events of magnitude 5.9 or greater. The following briefly outlines seismic events that have significantly affected the Coachella Valley in the past 60 years.

- < ***Desert Hot Springs Event*** - On December 4, 1948, a magnitude 6.5M_w earthquake occurred east of Desert Hot Springs (Proctor, 1968).
- < ***Palm Springs Event*** - A magnitude 6.2M_w earthquake occurred on July 8, 1986 in the Painted Hills causing minor surface creep of the Banning segment of the San Andreas Fault (USGS, 1987).
- < ***Joshua Tree Event*** - On April 22, 1992, a magnitude 6.1 M_w earthquake occurred in the mountains 9 miles east of Desert Hot Springs (OSMS, 1992). Some structural damage and minor injuries occurred in the Palm Springs area during this earthquake.
- < ***Landers Event*** - Early on June 28, 1992, the Coachella Valley was subjected to the largest seismic event to strike Southern California in 40 years. The Landers earthquake had a main shock with a 7.3M_w magnitude. Surface rupture occurred just south of the town of Yucca Valley and extended some 43 miles north toward Barstow. Surface horizontal offsets attained a maximum of 21 feet (OSMS, 1992).

- < **Big Bear Event** - Approximately three hours after the Landers Event on June 28, 1992, a magnitude 6.4Mw earthquake occurred 10 miles southeast of Big Bear Lake. The earthquake occurred on a previously unknown fault trending northeast from the San Andreas Fault in the San Bernardino Mountains (OSMS, 1992).
- < **Hector Mine Event** – On October 16, 1999, a magnitude 7.1 Mw earthquake occurred on the Lavic Lake and Bullion Mountain Faults north of Twentynine Palms.

3.5 General Ground Motion Analysis

The project site is considered likely to be subjected to moderate to strong ground motion from earthquakes in the region. Ground motions are dependent primarily on the earthquake magnitude and distance to the seismogenic (rupture) zone. Acceleration magnitudes also are dependent upon attenuation by rock and soil deposits, direction of rupture and type of fault; therefore, ground motions may vary considerably in the same general area.

2019 CBC General Ground Motion Parameters: The California Building Code (CBC) requires that a site-specific ground motion hazard analysis be performed in accordance with ASCE 7-16 Section 11.4.8 for structures on Site Class D and E sites with S_1 greater than or equal to 0.2 and Site Class E sites with S_s greater than or equal to 1.0. **This project site has been classified as Site Class D and has a S_1 value of 1.04, which would require a site-specific ground motion hazard analysis.** However, ASCE 7-16 Section 11.4.8 provides three exceptions which permit the use of conservative values of design parameters for certain conditions for Site Class D and E sites in lieu of a site specific hazard analysis. The exceptions are:

- Exception 1: Structures on Site Class E sites with S_s greater than or equal to 1.0, provided the site coefficient F_a is taken as equal to that of Site Class C.
- Exception 2: Structures on Site Class D sites with S_1 greater than or equal to 0.2, provided the value of the seismic response coefficient C_s is determined by Equations 12.8-2 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either Equation 12.8-3 for $T_L \geq T > 1.5T_s$ or Equation 12.8-4 for $T > T_L$.
- Exception 3: Structures on Site Class E sites with S_1 greater than or equal to 0.2, provided that T is less than or equal to T_s and the equivalent static force procedure is used for design.

The project structural engineer should confirm that an exception applies to the project. If none of the exceptions apply, our office should be consulted to perform a site-specific ground motion hazard analysis.

The 2019 CBC general ground motion parameters are based on the Risk-Targeted Maximum Considered Earthquake (MCE_R). The Structural Engineers Association of California (SEAOC) and Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps Web Application (SEAOC, 2021) was used to obtain the site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters. Design spectral response acceleration parameters are defined as the earthquake ground motions that are two-thirds ($2/3$) of the corresponding MCE_R ground motions. The Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for soil site class effects (PGA_M) value to be used for liquefaction and seismic settlement analysis in accordance with 2019 CBC Section 1803.5.12 ($PGA_M = F_{PGA} * PGA$) is estimated at 1.15g for the project site. **Design earthquake ground motion parameters are provided in Table 2.**

3.6 Seismic and Other Hazards

- < **Groundshaking.** The primary seismic hazard at the project site is the potential for strong groundshaking during earthquakes along the San Andreas fault. A further discussion of groundshaking is provided in Section 3.5.
- < **Surface Rupture.** The project site does not lie within a State of California, Alquist-Priolo Earthquake Fault Zone. Surface fault rupture is considered to be unlikely at the project site because of the well-delineated fault lines through the Coachella Valley as shown on USGS and CDMG maps. However, because of the high tectonic activity and deep alluvium of the region, we cannot preclude the potential for surface rupture on undiscovered or new faults that may underlie the site.
- < **Liquefaction and lateral spreading.** Liquefaction is unlikely to be a potential hazard at the site due to very dense soil conditions. The project site lies in a Riverside County designated zone of high potential for liquefaction (See Riverside County Geographic Information System (GIS) – Liquefaction Zones, Plate A-9). The potential for liquefaction induced settlement occurring at the project site during a strong seismic event is discussed in Section 3.8.

Other Potential Geologic Hazards.

- < **Landsliding.** The hazard of landsliding is unlikely due to the regional planar topography. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indications of landslides were observed during our site investigation.
- < **Volcanic hazards.** The site is not located proximal to any known volcanically active area and the risk of volcanic hazards is considered low. Obsidian Butte and Red Hill, located at the south end of the Salton Sea approximately 29 miles southeast of the project site, are small remnants of volcanic domes. The domes erupted about 1,800 to 2,500 years ago (Wright et al, 2015). The subsurface brine fluids around the domes have a high heat flow and are currently being utilized to produce geothermal energy.
- < **Tsunamis and seiches.** Tsunamis are giant ocean waves created by strong underwater seismic events, asteroid impact, or large landslides. Seiches are large waves generated in enclosed bodies of water in response to strong ground shaking. The Salton Sea, located down gradient (approximately 15 to 20 feet below the elevation of the subject site) from the site, is located approximately 1,000 feet to the southwest of the project site. The potential for the project site to be inundated by seiches from the Salton Sea depends on the elevation of the Salton Sea.
- < **Flooding.** The site does not lie near any large bodies of water, so the threat of seismically-induced flooding is unlikely. The project site is located at the margin of the Special Flood Hazard Area (SFHA) Zone A (as shown on Plate A-7). The SFHA consist of areas of land subject to inundation by a flood having a one-percent or greater probability of being equaled or exceeded during a given year (previously referred to as the base flood or 100-year flood). No base flood elevation has been determined for Zone A.
- < **Collapsible soils.** Collapsible soil generally consists of dry, loose, low-density material that have the potential collapse and compact (decrease in volume) when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits. Due to the dense nature of the subsurface soils, the potential for hydro-collapse of the subsurface soils at this project site is considered very low.
- < **Expansive soils.** The near surface soils at the project site consist of sandy silts, silty sands and sands which are non-expansive.

3.8 Liquefaction

Liquefaction occurs when granular soil below the water table is subjected to vibratory motions, such as produced by earthquakes. With strong ground shaking, an increase in pore water pressure develops as the soil tends to reduce in volume. If the increase in pore water pressure is sufficient to reduce the vertical effective stress (suspending the soil particles in water), the soil strength decreases and the soil behaves as a liquid (similar to quicksand). Liquefaction can produce excessive settlement, ground rupture, lateral spreading, or failure of shallow bearing foundations. Four conditions are generally required for liquefaction to occur:

- (1) the soil must be saturated (relatively shallow groundwater);
- (2) the soil must be loosely packed (low to medium relative density);
- (3) the soil must be relatively cohesionless (not clayey); and
- (4) groundshaking of sufficient intensity must occur to function as a trigger mechanism.

Methods of Analysis: The liquefaction potential at the project site was evaluated using the 1997 NCEER Liquefaction Workshop and the Idriss and Boulanger (2008) methods. The 1997 NCEER methods utilize direct SPT blow counts from site exploration and earthquake magnitude/PGA estimates from the seismic hazard analysis. The resistance to liquefaction is plotted on a chart of cyclic shear stress ratio (CSR) versus a corrected blow count $N_{1(60)}$. The analysis was performed using a $PGAM$ value of 1.15g was used in the analysis with a 20-foot groundwater depth and a threshold factor of safety (FS) of 1.3. The fines content of liquefiable sands and silts increases the liquefaction resistance in that more ground motion cycles are required to fully develop increased pore pressures. Prior to calculating the settlements, the field SPT blow counts were corrected to account for the type of hammer, borehole diameter, overburden pressure and rod length $N_{1(60)}$ in accordance with Robertson and Wride (1997). The corrected blow counts were then converted to equivalent clean sand blow counts ($N_{1(60)cs}$).

Liquefaction Induced Settlements: *Based on empirical relationships, liquefaction is not expected to occur at the project site.* A computer printout of the liquefaction analysis is provided in Appendix D.

Mitigation: Due to the dense nature of the subsurface soils, liquefaction is not expected to occur at the project site. No mitigation for liquefaction is required at the site.

3.9 Seismic Settlement

An evaluation of the non-liquefaction seismic settlement potential was performed using the relationships developed by Tokimatsu and Seed (1984, 1987) for dry sands. This method is an empirical approach to quantify seismic settlement using SPT blow counts and PGA estimates from the probabilistic seismic hazard analysis. The soils beneath the site consist primarily of medium dense to very dense silty sands and sands which are not expected to experience seismic settlement during strong seismic events. A computer printout of the seismic settlement analysis is provided in Appendix D.

3.10 Hydro-consolidation

In arid climatic regions, granular soils have a potential to collapse upon wetting. This collapse (hydroconsolidation) phenomena is the result of the lubrication of soluble cements (carbonates) in the soil matrix causing the soil to densify from its loose configuration during deposition. Based on our experience in the vicinity of the project site and the site soils are medium dense to very dense in nature, there is a slight risk of collapse upon inundation from the site. Therefore, development of building foundation is not required to include provisions for mitigating the hydroconsolidation caused by soil saturation from landscape irrigation or broken utility lines.

3.11 Regional Subsidence

The project is located in the Coachella Valley which has experienced up to 12 inches of regional subsidence between 1996 and 2005 (USGS, 2007). The risk of regional subsidence at the project site is considered moderate. The project site is located in Riverside County designated area of active subsidence (Plate A-10).

Section 4 DESIGN CRITERIA

4.1 Site Preparation

Pre-grade Meeting: Prior to site preparation, a meeting should be held at the site with as a minimum, the owner's representative, grading contractor and geotechnical engineer in attendance.

Clearing and Grubbing: All surface improvements, debris and/or vegetation including grass, bushes, and weeds on the site at the time of construction should be removed from the construction area. Root balls should be completely excavated. Organic stripping should be hauled from the site and not used as fill. *Any trash, construction debris, concrete slabs, old pavement, landfill, and buried obstructions such as old foundations and utility lines exposed during rough grading should be traced to the limits of the foreign materials and removed. [Abandoned pipes should be traced and removed or filled with concrete.* Any excavations resulting from site clearing and grubbing should be dish-shaped to the lowest depth of disturbance and backfilled with engineered fill.

Mass Grading: Prior to placing any fills, the surface 12 inches of soil should be removed, the exposed surface uniformly moisture conditioned to a depth of 8 inches by discing and wetting to at least 2% over optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density. Native soils may be used for mass grading, placed in 6 to 8 inches maximum lifts, uniformly moisture conditioned to a depth of 8 inches by discing and wetting to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

Building Pad Preparation for Foundations: The existing surface soil within the building pad area(s) should be removed to 18 inches below the lowest foundation grade or 36 inches below the original grade (whichever is deeper), extending five feet beyond all exterior wall/column lines (including adjacent concreted areas). The exposed sub-grade should be scarified to a depth of 6 to 8 inches, uniformly moisture conditioned to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

Auxiliary Structures Foundation Preparation: Auxiliary structures such as free standing or retaining walls should have footings extended to a minimum of 18 inches below grade. The existing soil beneath the structure foundation prepared in the manner described for the building pad except the preparation needs only to extend 18 inches below and beyond the footing.

Street and Parking Lot Subgrade Preparation: The native soils in street areas should be removed and recompact to 12 inches below the design subgrade elevation. Engineered fill in street areas should be uniformly moisture conditioned to within 2% of optimum moisture, placed in layers not more than 6 to 8 inches in thickness and mechanically compacted to a minimum of 90% of the ASTM D1557 maximum dry density.

Sidewalk and Concrete Hardscape Areas: In areas other than the building pad which are to receive concrete slabs, the ground surface should be over-excavated to a depth of 12 inches, uniformly moisture conditioned to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

The on-site soils are suitable for use as compacted fill and utility trench backfill. Imported fill soil (if required) should be similar to onsite soil or non-expansive, granular soil meeting the USCS classifications of SM, SP-SM, or SW-SM with a maximum rock size of 6 inches and no less than 5% passing the No. 200 sieve. *The geotechnical engineer should approve imported fill soil sources before hauling material to the site.* Native and imported materials should be placed in lifts no greater than 8 inches in loose thickness, uniformly moisture conditioned to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

Moisture Control and Drainage: The moisture condition of the building pad should be maintained during trenching and utility installation until concrete is placed or should be rewetted before initiating delayed construction. If soil drying is noted, a 2 to 3 inches depth of water may be used in the bottom of footings to restore footing subgrade moisture and reduce potential edge lift.

Adequate site drainage is essential to future performance of the project. Infiltration of excess irrigation water and stormwaters can adversely affect the performance of the subsurface soil at the site. Positive drainage should be maintained away from all structures (5% for 5 feet minimum across unpaved areas) to prevent ponding and subsequent saturation of the native soil. Gutters and downspouts may be considered as a means to convey water away from foundations.

Observation and Density Testing: All site preparation and fill placement should be continuously observed and tested by a representative of a qualified geotechnical engineering firm. Full-time observation services during the excavation and scarification process is necessary to detect undesirable materials or conditions and soft areas that may be encountered in the construction area. The geotechnical firm that provides observation and testing during construction shall assume the responsibility of "*geotechnical engineer of record*" and, as such, shall perform additional tests and investigation as necessary to satisfy themselves as to the site conditions and the geotechnical parameters for site development.

4.2 Utility Trench Backfill

On-site soil free of debris, vegetation, and other deleterious matter may be suitable for use as utility trench backfill. Backfill within roadway should, at a minimum, conform to County of Riverside Standard No. 818 – Utility Trench Backfill (Plate E-1 – Appendix E).

Backfill within roadways should be placed in layers not more than 6 to 8 inches in thickness, uniformly moisture conditioned to within 2% of optimum moisture and mechanically compacted to a minimum of 90% of the ASTM D1557 maximum dry density except for the top 12 inches of the trench which shall be compacted to at least 95%. Native backfill should only be placed and compacted after encapsulating buried pipes with suitable bedding and pipe envelope material.

Pipe envelope/bedding should either be clean sand (Sand Equivalent $SE > 30$). Precautions should be taken in the compaction of the backfill to avoid damage to the pipes and structures.

4.3 Foundations and Settlements

Shallow column footings and continuous wall footings are suitable to support the structures provided they are founded on a layer of properly prepared and compacted soil as described in Section 4.1. The foundations may be designed using an allowable soil bearing pressure of 1,800 psf. The allowable soil pressure may be increased by 20% for each foot of embedment depth in excess of 18 inches and by one-third for short term loads induced by winds or seismic events. The maximum allowable soil pressure at increased embedment depths shall not exceed 2,200 psf.

All exterior and interior foundations should be embedded a minimum of 18 inches below the

building support pad or lowest adjacent final grade, whichever is deeper. Continuous wall footings should have a minimum width of 12 inches. Isolated column footings should have a minimum width of 24 inches. *Recommended concrete reinforcement and sizing for all footings should be provided by the structural engineer.*

Resistance to horizontal loads will be developed by passive earth pressure on the sides of footings and frictional resistance developed along the bases of footings and concrete slabs. Passive resistance to lateral earth pressure may be calculated using an equivalent fluid pressure of 300 pcf to resist lateral loadings. The top one foot of embedment should not be considered in computing passive resistance unless the adjacent area is confined by a slab or pavement. An allowable friction coefficient of 0.35 may also be used at the base of the footings to resist lateral loading.

Foundation movement under the estimated static loadings and seismic site conditions are estimated to not exceed $\frac{3}{4}$ inch with differential movement of about two-thirds of total movement for the loading assumptions stated above when the subgrade preparation guidelines given above are followed. Foundation movements under the seismic loading due to liquefaction and/or dry settlement, and collapse potential are provided in Section 3.9 and 3.10 of this report.

4.4 Slabs-On-Grade

Concrete slabs and flatwork should be a minimum of 5 inches thick. Concrete floor slabs may either be monolithically placed with the foundation or dowelled after footing placement. The concrete slabs may be placed on granular subgrade that has been compacted at least 90% relative compaction (ASTM D1557).

American Concrete Institute (ACI) guidelines (ACI 302.1R-04 Chapter 3, Section 3.2.3) provide recommendations regarding the use of moisture barriers beneath concrete slabs. The concrete floor slabs should be underlain by a 10-mil polyethylene vapor retarder that works as a capillary break to reduce moisture migration into the slab section. All laps and seams should be overlapped 6-inches or as recommended by the manufacturer. The vapor retarder should be protected from puncture. The joints and penetrations should be sealed with the manufacturer's recommended adhesive, pressure-sensitive tape, or both. The vapor retarder should extend a minimum of 12 inches into the footing excavations. The vapor retarder may lie directly on the compacted granular subgrade with 2 inches of clean sand cover.

Placing sand over the vapor retarder may increase moisture transmission through the slab, because it provides a reservoir for bleed water from the concrete to collect. The sand placed over the vapor retarder may also move and mound prior to concrete placement, resulting in an irregular slab thickness. For areas with moisture sensitive flooring materials, ACI recommends that concrete slabs be placed without a sand cover directly over the vapor retarder, provided that the concrete mix uses a low-water cement ratio and concrete curing methods are employed to compensate for release of bleed water through the top of the slab. The vapor retarder should have a minimum thickness of 15-mil (Stego-Wrap or equivalent).

Concrete slab and flatwork reinforcement should consist of chaired rebar slab reinforcement (minimum of No. 4 bars at 18-inch centers, both horizontal directions) placed at slab mid-height to resist potential swell forces and cracking. ***Slab thickness and steel reinforcement are minimums only and should be verified by the structural engineer/designer knowing the actual project loadings.*** The construction joint between the foundation and any mowstrips/sidewalks placed adjacent to foundations should be sealed with a polyurethane based non-hardening sealant to prevent moisture migration between the joint.

Control joints should be provided in all concrete slabs-on-grade at a maximum spacing (in feet) of 2 to 3 times the slab thickness (in inches) as recommended by American Concrete Institute (ACI) guidelines. All joints should form approximately square patterns to reduce randomly oriented contraction cracks. Contraction joints in the slabs should be tooled at the time of the pour or sawcut (¼ of slab depth) within 6 to 8 hours of concrete placement. Construction (cold) joints in foundations and area flatwork should either be thickened butt-joints with dowels or a thickened keyed-joint designed to resist vertical deflection at the joint. All joints in flatwork should be sealed to prevent moisture, vermin, or foreign material intrusion. Precautions should be taken to prevent curling of slabs in this arid desert region (refer to ACI guidelines).

4.5 Concrete Mixes and Corrosivity

Selected chemical analyses for corrosivity were conducted on bulk samples of the near surface soil from the project site (Plate C-2). The native soils were found to have moderate (S1) levels of sulfate ion concentration (1,710 ppm). Sulfate ions in high concentrations can attack the cementitious material in concrete, causing weakening of the cement matrix and eventual deterioration by raveling. The following table provides American Concrete Institute (ACI)

recommended cement types, water-cement ratio and minimum compressive strengths for concrete in contact with soils:

Table 4. Concrete Mix Design Criteria due to Soluble Sulfate Exposure

Sulfate Exposure Class	Water-soluble Sulfate (SO ₄) in soil, ppm	Cement Type	Maximum Water-Cement Ratio by weight	Minimum Strength f'c (psi)
S0	0-1,000	–	–	–
S1	1,000-2,000	II	0.50	4,000
S2	2,000-20,000	V	0.45	4,500
S3	Over 20,000	V (plus Pozzolon)	0.45	4,500

Note: From ACI 318-14 Table 19.3.1.1 and Table 19.3.2.1

However, in consideration of general corrosive environment in the vicinity, a minimum of 4,000 psi concrete of Type V Portland Cement with a maximum water-cement ration of 0.50 (by weight) should be placed in contact with native soil on this project (sitework including streets, flatwork, sidewalks, driveways, patios, and foundations).

A minimum concrete cover of three (3) inches is recommended around steel reinforcing or embedded components (anchor bolts, hold-downs, etc.) exposed to native soil or landscape water (to 18 inches above grade). The concrete should also be thoroughly vibrated during placement. Admixtures may be required to allow placement of this low water/cement ratio concrete. Thorough concrete consolidation and hard trowel finishes should be used due to the aggressive soil exposure.

The native soil has moderate levels of chloride ion concentration (630 ppm). Chloride ions can cause corrosion of reinforcing steel, anchor bolts and other buried metallic conduits. Resistivity determinations on the soil indicate very severe potential for metal loss because of electrochemical corrosion processes. Mitigation of the corrosion of steel can be achieved by using steel pipes coated with epoxy corrosion inhibitors, asphaltic and epoxy coatings, cathodic protection or by encapsulating the portion of the pipe lying above groundwater with a minimum of 3 inches of

densely consolidated concrete. *No metallic water pipes or conduits should be placed below foundations.*

Foundation designs shall provide a minimum concrete cover of three (3) inches around steel reinforcing or embedded components (anchor bolts, etc.) exposed to native soil or landscape water (to 18 inches above grade). If the 3-inch concrete edge distance cannot be achieved, all embedded steel components (anchor bolts, etc.) shall be epoxy coated for corrosion protection (in accordance with ASTM D3963/A934) or a corrosion inhibitor and a permanent waterproofing membrane shall be placed along the exterior face of the exterior footings. *Hold-down straps should not be used at foundation edges due to corrosion of metal at its protrusion from the slab edge.* Additionally, the concrete should be thoroughly vibrated at footings during placement to decrease the permeability of the concrete.

Copper water piping (except for trap primers) should not be placed under floor slabs. All copper piping within 18 inches of ground surface shall be wrapped with two layers of 10 mil plumbers tape or sleeved with PVC piping to prevent contact with soil. The trap primer pipe shall be completely encapsulated in a PVC sleeve and Type K copper should be utilized if polyethylene tubing cannot be used. Pressurized waterlines are not allowed under the floor slab. Fire protection piping (risers) should be placed outside of the building foundation.

Landmark does not practice corrosion engineering. We recommend that a qualified corrosion engineer evaluate the corrosion potential on metal construction materials and concrete at the site to obtain final design recommendations.

4.6 Excavations

All site excavations should conform to CalOSHA requirements for Type C soil. The contractor is solely responsible for the safety of workers entering trenches. Temporary excavations with depths of 4 feet or less may be cut nearly vertical for short duration. Excavations deeper than 4 feet will require shoring or slope inclinations in conformance to CAL/OSHA regulations for Type C soil. Surcharge loads of stockpiled soil or construction materials should be set back from the top of the slope a minimum distance equal to the height of the slope. All permanent slopes should not be steeper than 3:1 to reduce wind and rain erosion. Protected slopes with ground cover may be as steep as 2:1. However, maintenance with motorized equipment may not be possible at this inclination.

4.7 Seismic Design

This site is located in the seismically active southern California area and the site structures are subject to strong ground shaking due to potential fault movements along the Brawley, Superstition Hills, and Imperial Faults. Engineered design and earthquake-resistant construction are the common solutions to increase safety and development of seismic areas. Designs should comply with the latest edition of the CBC for Site Class D using the seismic coefficients given in Section 3.6 and Table 2 of this report.

4.8 Pavements

Pavements should be designed according to the 2020 Caltrans Highway Design Manual or other acceptable methods. Traffic indices were not provided by the project engineer or owner; therefore, we have provided structural sections for several traffic indices for comparative evaluation. The public agency or design engineer should decide the appropriate traffic index for the site. Maintenance of proper drainage is necessary to prolong the service life of the pavements. [

Based on the current Caltrans method, an estimated R-value of 50 for the subgrade soil and assumed traffic indices, the following table provides our estimates for asphaltic concrete (AC) and Portland Cement Concrete (PCC) pavement sections.

PAVEMENT STRUCTURAL SECTIONS

R-Value of Subgrade Soil - 50 (estimated)

Design Method - CALTRANS 2020

Traffic Index (assumed)	Flexible Pavements		Rigid (PCC) Pavements	
	Asphaltic Concrete Thickness (in.)	Aggregate Base Thickness (in.)	Concrete Thickness (in.)	Aggregate Base Thickness (in.)
5.0	3.0	4.0	6.0	4.0
6.0	3.5	4.0	6.0	6.0
7.0	4.5	4.0	6.0	8.0
8.0	5.0	5.5	8.0	8.0

Notes:

- 1) Asphaltic concrete shall be Caltrans, Type B, ¾ inch maximum medium grading, (½ inch for parking areas) medium grading with PG70-10 asphalt concrete, compacted to a minimum of 95% of the 50-blow Marshall density (ASTM D1559).
- 2) Aggregate base shall conform to Caltrans Class 2 (¾ in. maximum), compacted to a minimum of 95% of ASTM D1557 maximum dry density.
- 3) Place pavements on 12 inches of moisture conditioned ($\pm 2\%$ of over optimum) native soil compacted to a minimum of 95% of the maximum dry density determined by ASTM D1557, or the governing agency requirements.
- 4) Portland cement concrete for pavements should have Type V cement, a minimum compressive strength of 4,500 psi at 28 days, and a maximum water-cement ratio of 0.45.

Final pavement sections may need to be determined by sampling and R-Value testing during grading operations when actual subgrade soils are exposed.

Section 5

LIMITATIONS AND ADDITIONAL SERVICES

5.1 Limitations

The findings and professional opinions within this report are based on current information regarding the proposed new fire station No. 41 located at 99-065 Corvina Drive in the unincorporated community of North Shore, California. The conclusions and professional opinions of this report are invalid if:

- < Structural loads change from those stated or the structures are relocated.
- < The Additional Services section of this report is not followed.
- < This report is used for adjacent or other property.
- < Changes of grade or groundwater occur between the issuance of this report and construction other than those anticipated in this report.
- < Any other change that materially alters the project from that proposed at the time this report was prepared.

This report was prepared according to the generally accepted *geotechnical engineering standards of practice* that existed in Riverside County at the time the report was prepared. No express or implied warranties are made in connection with our services.

Findings and professional opinions in this report are based on selected points of field exploration, geologic literature, limited laboratory testing, and our understanding of the proposed project. Our analysis of data and professional opinions presented herein are based on the assumption that soil conditions do not vary significantly from those found at specific exploratory locations. Variations in soil conditions can exist between and beyond the exploration points or groundwater elevations may change. The nature and extend of such variations may not become evident until, during or after construction. If variations are detected, we should immediately be notified as these conditions may require additional studies, consultation, and possible design revisions.

Environmental or hazardous materials evaluations were not performed by *LandMark Consultants, Inc.* for this project. *LandMark Consultants, Inc.* will assume no responsibility or liability whatsoever for any claim, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

The client has responsibility to see that all parties to the project including designer, contractor, and subcontractor are made aware of this entire report within a reasonable time from its issuance. This report should be considered invalid for periods after two years from the date of report issuance without a review of the validity of the findings and professional opinions by our firm, because of potential changes in the Geotechnical Engineering Standards of Practice.

This report is based upon government regulations in effect at the time of preparation of this report. Future changes or modifications to these regulations may require modification of this report. Land or facility use, on and off-site conditions, regulations, design criteria, procedures, or other factors may change over time, which may require additional work. Any party other than the client who wishes to use this report shall notify *LandMark Consultants, Inc.* of such intended use. Based on the intended use of the report, *LandMark Consultants, Inc.* may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release *LandMark Consultants, Inc.* from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold *LandMark Consultants, Inc.* harmless from any claim or liability associated with such unauthorized use or non-compliance.

This report contains information that may be useful in the preparation of contract specifications. However, the report is not worded in such a manner that we recommend its use as a construction specification document without proper modification. The use of information contained in this report for bidding purposes should be done at the contractor's option and risk.

5.2 Plan Review

Landmark Consultants, Inc. should be retained during development of design and construction documents to check that the geotechnical professional opinions are appropriate for the proposed project and that the geotechnical professional opinions are properly interpreted and incorporated into the documents. *Landmark Consultants, Inc.* should have the opportunity to review the final design plans and specifications for the project prior to the issuance of such for bidding.

Governmental agencies may require review of the plans by the geotechnical engineer of record for compliance to the geotechnical report.

5.3 Additional Services

We recommend that *Landmark Consultants, Inc.* be retained to provide the tests and observations services during construction. *The geotechnical engineering firm providing such tests and observations shall become the geotechnical engineer of record and assume responsibility for the project.*

Landmark Consultants, Inc. recommendations for this site are, to a high degree, dependent upon appropriate quality control of subgrade preparation, fill placement, and foundation construction. Accordingly, the findings and professional opinions in this report are made contingent upon the opportunity for Landmark Consultants, Inc. to observe grading operations and foundation excavations for the proposed construction.

If parties other than Landmark Consultants, Inc. are engaged to provide observation and testing services during construction, such parties must be notified that they will be required to assume complete responsibility as the geotechnical engineer of record for the geotechnical phase of the project by concurring with the recommendations in this report and/or by providing alternative recommendations.

Additional information concerning the scope and cost of these services can be obtained from our office.

Section 6**REFERENCES**

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TABLES

Table 1
Summary of Characteristics of Closest Known Active Faults

Fault Name	Approximate Distance (miles)	Approximate Distance (km)	Maximum Moment Magnitude (Mw)	Fault Length (km)	Slip Rate (mm/yr)
San Andreas - Coachella	0.8	1.2	7.2	96 ± 10	25 ± 5
Hot Springs *	9.3	14.8			
Indio Hills *	19.1	30.5			
San Jacinto - Anza	20.9	33.4	7.2	91 ± 9	12 ± 6
San Andreas - San Bernardino (South)	24.7	39.5	7.4	103 ± 10	30 ± 7
San Andreas - San Bernardino (North)	24.7	39.6	7.5	103 ± 10	24 ± 6
Elmore Ranch	25.7	41.2	6.6	29 ± 3	1 ± 0.5
San Jacinto - Borrego	26.3	42.1	6.6	29 ± 3	4 ± 2
San Jacinto - Coyote Creek	26.5	42.5	6.8	41 ± 4	4 ± 2
Blue Cut *	27.5	44.0			
Superstition Hills	35.1	56.2	6.6	23 ± 2	4 ± 2
Superstition Mountain	36.1	57.8	6.6	24 ± 2	5 ± 3
Garnet Hill *	37.2	59.6			
Eureka Peak	37.4	59.8	6.4	19 ± 2	0.6 ± 0.4
Pisgah Mtn. - Mesquite Lake	40.6	64.9	7.3	89 ± 9	0.6 ± 0.4
Pinto Mtn.	40.7	65.1	7.2	74 ± 7	2.5 ± 2
Earthquake Valley	40.8	65.3	6.5	20 ± 2	2 ± 1
Elsinore - Coyote Mountain	44.1	70.6	6.8	39 ± 4	4 ± 2
Painted Gorge Wash*	44.7	71.5			
Burnt Mtn.	46.0	73.6	6.5	21 ± 2	0.6 ± 0.4
Imperial	46.3	74.0	7	62 ± 6	20 ± 5
Elsinore - Julian	46.7	74.8	7.1	76 ± 8	5 ± 2

* Note: Faults not included in CGS database.

Table 2
2019 California Building Code (CBC) and ASCE 7-16 Seismic Parameters

Soil Site Class:	D	<u>ASCE 7-16 Reference</u>
Latitude:	33.5215 N	Table 20.3-1
Longitude:	-115.9384 W	
Risk Category:	IV	
Seismic Design Category:	F	

Maximum Considered Earthquake (MCE) Ground Motion

Mapped MCE _R Short Period Spectral Response	S _s	2.434 g	ASCE Figure 22-1
Mapped MCE _R 1 second Spectral Response	S ₁	1.036 g	ASCE Figure 22-2
Short Period (0.2 s) Site Coefficient	F _s	1.00	ASCE Table 11.4-1
Long Period (1.0 s) Site Coefficient	F _v	1.70	ASCE Table 11.4-2
MCE _R Spectral Response Acceleration Parameter (0.2 s)	S _{MS}	2.434 g	= F _s * S _s ASCE Equation 11.4-1
MCE _R Spectral Response Acceleration Parameter (1.0 s)	S _{M1}	1.761 g	= F _v * S ₁ ASCE Equation 11.4-2

Design Earthquake Ground Motion

Design Spectral Response Acceleration Parameter (0.2 s)	S _{DS}	1.623 g	= 2/3 * S _{MS}	ASCE Equation 11.4-3
Design Spectral Response Acceleration Parameter (1.0 s)	S _{D1}	1.174 g	= 2/3 * S _{M1}	ASCE Equation 11.4-4
Risk Coefficient at Short Periods (less than 0.2 s)	C _{RS}	0.878		ASCE Figure 22-17
Risk Coefficient at Long Periods (greater than 1.0 s)	C _{RI}	0.868		ASCE Figure 22-18
	T _L	8.00 sec		ASCE Figure 22-12
	T _O	0.14 sec	= 0.2 * S _{D1} / S _{DS}	
	T _S	0.72 sec	= S _{D1} / S _{DS}	
Peak Ground Acceleration	PGA _M	1.15 g		ASCE Equation 11.8-1

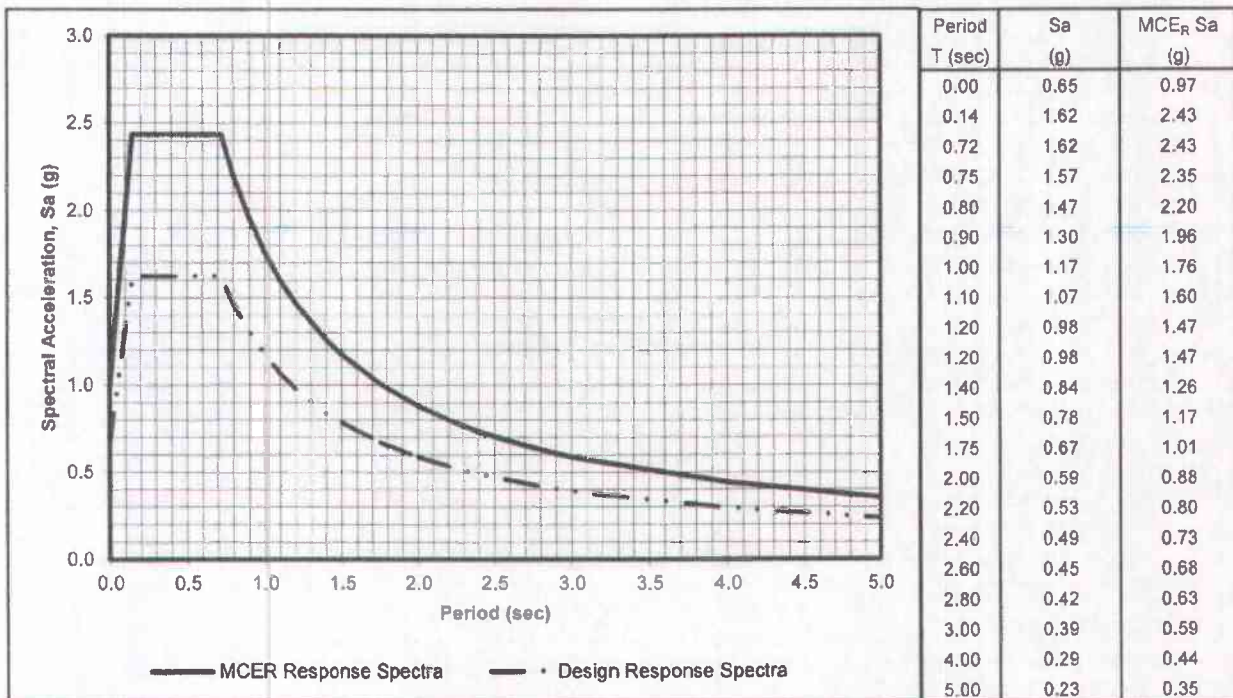
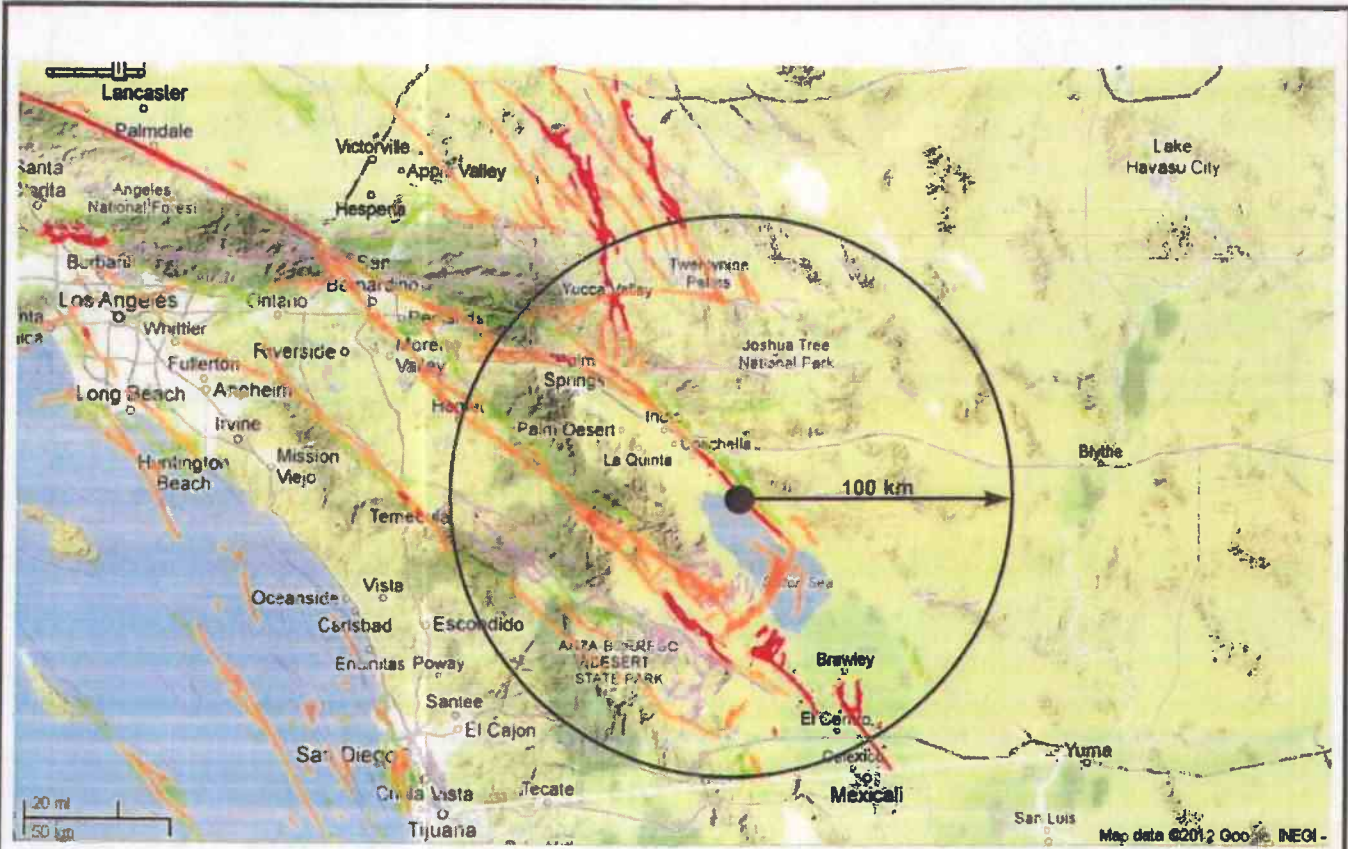


Table 3
Soil Site Class Determination per ASCE 7-16, Section 20.4
Fire Station 41 - North Shore, CA
LCI Project No. LP21055

Boring B-3

Sample Depth	SPT Blow Count	di/Ni	Sum di/Ni	Avg. Nch
0				
2.5	71	0.04	1.19	42
5	37	0.07		
7.5	69	0.04		
10	75	0.03		
15	100	0.05		
20	53	0.09		
25	37	0.14		
30	57	0.09		
35	25	0.20		
40	17	0.29		
45	80	0.06		
50	53	0.09		

FIGURES



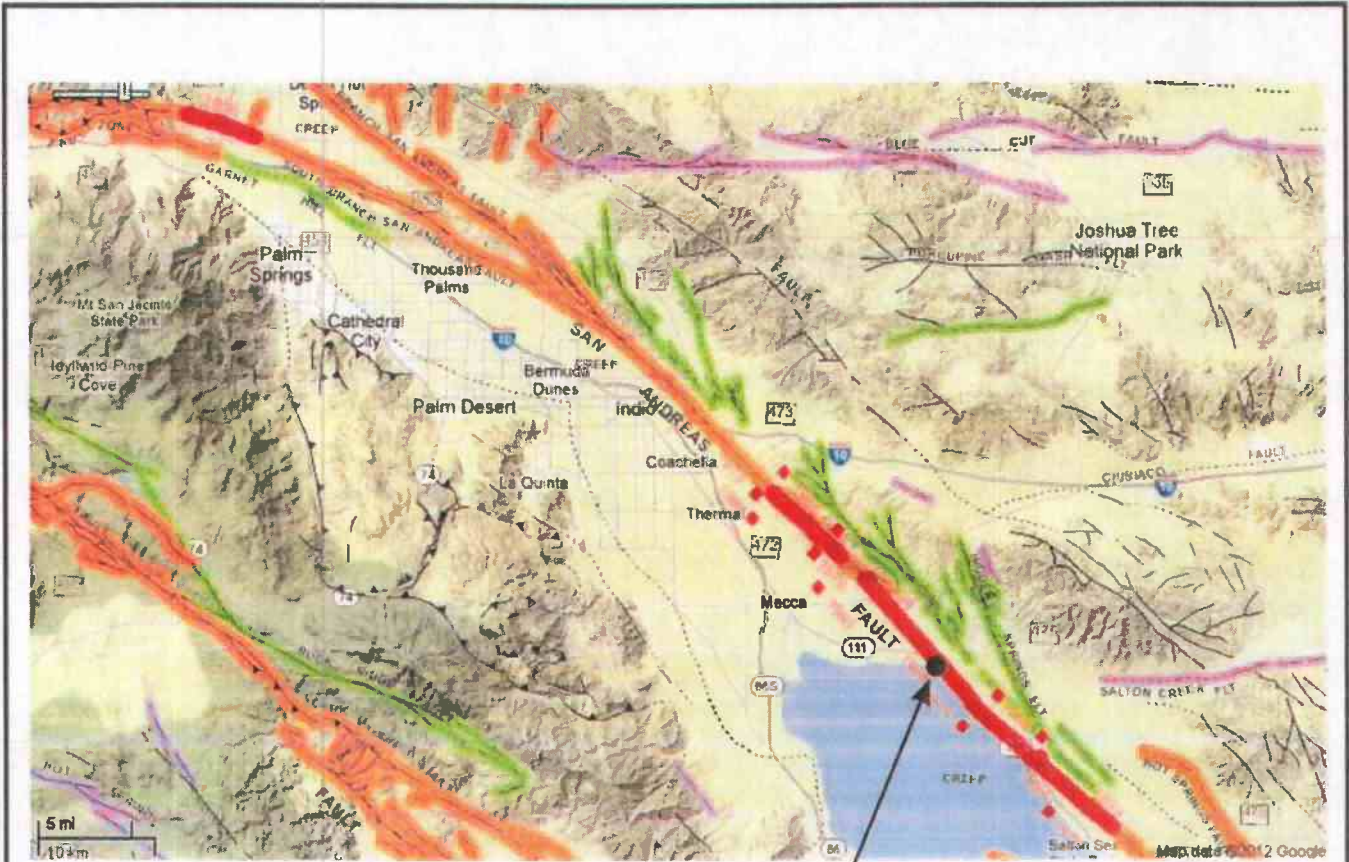
Source: California Geological Survey 2010 Fault Activity Map of California
<http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#>

LANDMARK
 Geo-Engineers and Geologists

Project No.: LP21055

Regional Fault Map

Figure 1



Source: California Geological Survey 2010 Fault Activity Map of California
<http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#>










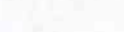
Project Site

<p>LANDMARK Geo-Engineers and Geologists Project No.: LP21055</p>	<p>Map of Local Faults</p>	<p>Figure 2</p>
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EXPLANATION

Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where established by younger rocks or by lakes or bays. Fault traces are queried where continuation or existence is uncertain. Corroated faults in the Great Valley are based on maps of selected subsurface horizons, so locations shown are approximate and may indicate structural trends only. All offshore faults based on seismic reflection profile records are shown as solid lines where well defined, dashed where inferred, queried where uncertain.




FAULT CLASSIFICATION COLOR CODE (Indicating Recency of Movement)





















-  Fault along which **historic (last 200 years)** displacement has occurred and is associated with one or more of the following:
 - (a) a recorded earthquake with surface rupture. (Also included are some well-defined surface breaks caused by ground shaking during earthquakes, e.g. extensive ground fissuring, not on the White Well fault, caused by the Ash-Tehachapi earthquake of 1852). The date of the associated earthquake is indicated. Where repeated surface ruptures on the same fault have occurred, only the date of the latest movement may be indicated, especially if earlier reports are not well documented as to location of ground breaks.
 - (b) fault creep slope - slow ground displacement usually without accompanying earthquakes.
 - (c) displaced survey lines.
-  A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture termination point.
-  Date bracketed by triangles indicates local fault break.
-  No triangle by date indicates an intermediate point along fault break.
-  Fault that exhibits fault creep slope. Hashes indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.
-  Square on fault indicates where fault creep slope has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slope has occurred (creep either continuous or intermittent between these end points).
-  **Holocene** fault displacement (during past 11,700 years) without historic record. Geomorphic evidence for Holocene faulting includes sag ponds, scarps showing little erosion, or the following features in Holocene age deposits: offset stream courses, linear scarps, escaper ridges, and biangular localized spurs. Recency of faulting elsewhere is based on the latest-dated age of the youngest strata displaced by faulting.
-  **Late Quaternary** fault displacement (during past 700,000 years). Geomorphic evidence similar to that described for Holocene faults except features are less distinct. Faulting may be younger, but lack of younger overlying deposits precludes more accurate age classification.
-  **Quaternary** fault (age undifferentiated). Most faults of this category show evidence of displacement sometime during the past 1.8 million years; possible exceptions are faults which displace rocks of undifferentiated Pleistocene age. Unsubstantiated Quaternary faults were based on Fault Map of California, 1975 See Bulletin 201, Appendix D for source data.
-  **Pre-Quaternary** fault (older than 1.8 million years) or fault without recognized Quaternary displacement. Some faults are shown in this category because the source of mapping used was of reconnaissance nature, or was not done with the object of dating fault displacements. Faults in this category are not necessarily inactive.

ADDITIONAL FAULT SYMBOLS

-  Bar and tail on down/own side (relative or apparent).
-  Arrows along fault indicate relative or apparent direction of lateral movement.
-  Arrow on fault indicates direction of dip.
-  Low angle fault (barbs on upper plate). Fault surfaces generally dip less than 65° but locally may have been subsequently steepened. On offshore faults barbs simply indicate a reverse fault regardless of dip.

OTHER SYMBOLS

-  Numbers refer to annotations listed in the appendices of the accompanying report. Annotations include fault name, age of fault displacement, and pertinent references including Earthquake Fault Zoning maps where a fault has been zoned by the Alquist-Priolo Earthquake Fault Zoning Act. This Act requires the State Geologist to delineate zones to enclose faults with Holocene displacement.
-  Structural discontinuity (folds) separating differing Mesozoic structural domains. May indicate discontinuities between basement rocks.
-  Boundary Seismic Zone, a linear zone of seismicity locally up to 10 km wide associated with the eastward step between the Imperial and San Andreas faults.

Geologic Time Scale	Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
				ON LAND	OFFSHORE
Quaternary	Holocene				
	Late Quaternary				
	Pre-Holocene				
Pre-Quaternary	1,800,000				
	4.8 billion (Age of Earth)				

* Recency was recognized as extending to 2.5 Ma (Parker and Galloway, 2002). Quaternary faults on this map were established using the previous 1.8 Ma criterion.

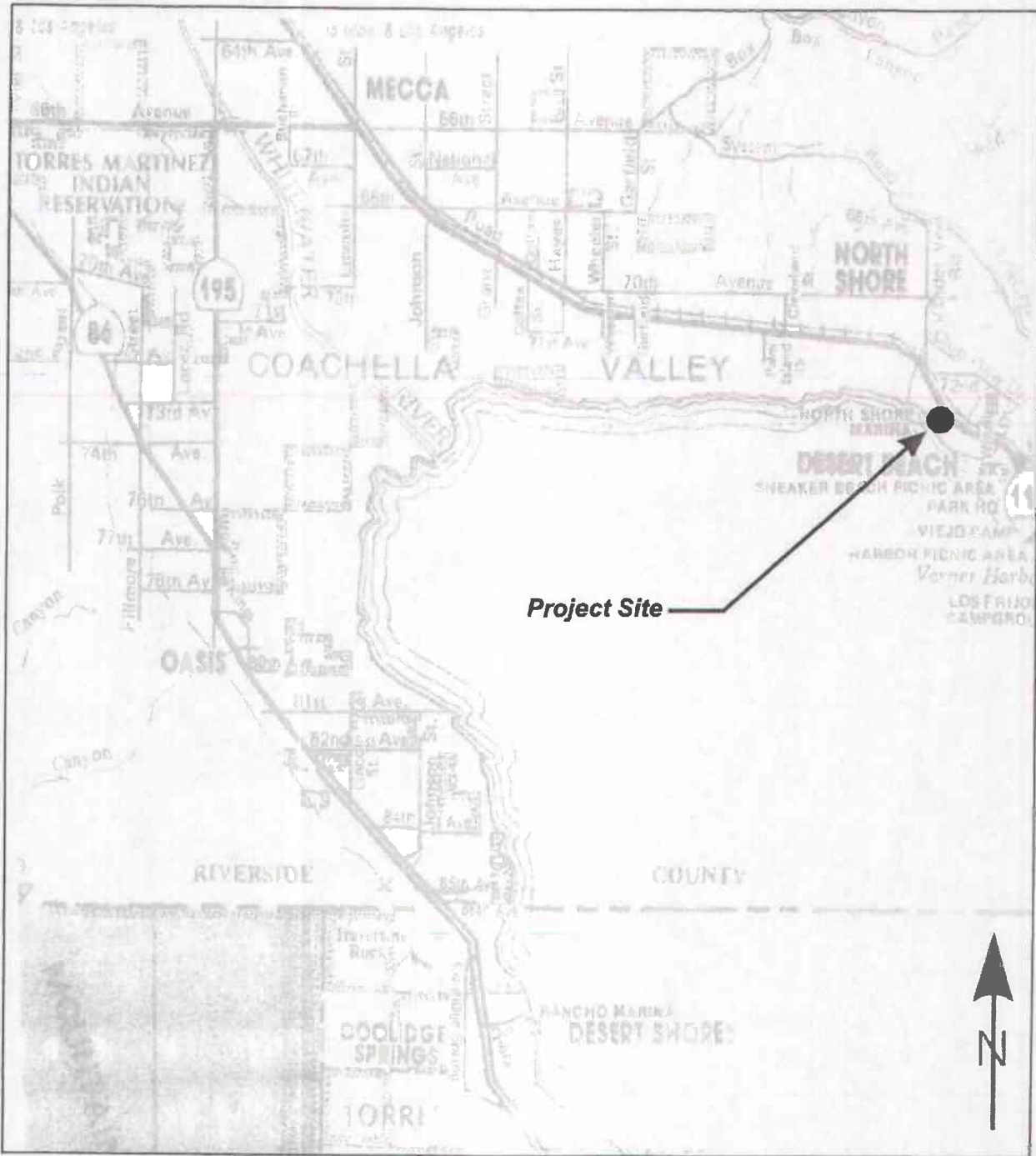
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Fault Map Legend

Figure 3

APPENDIX A



Project Site

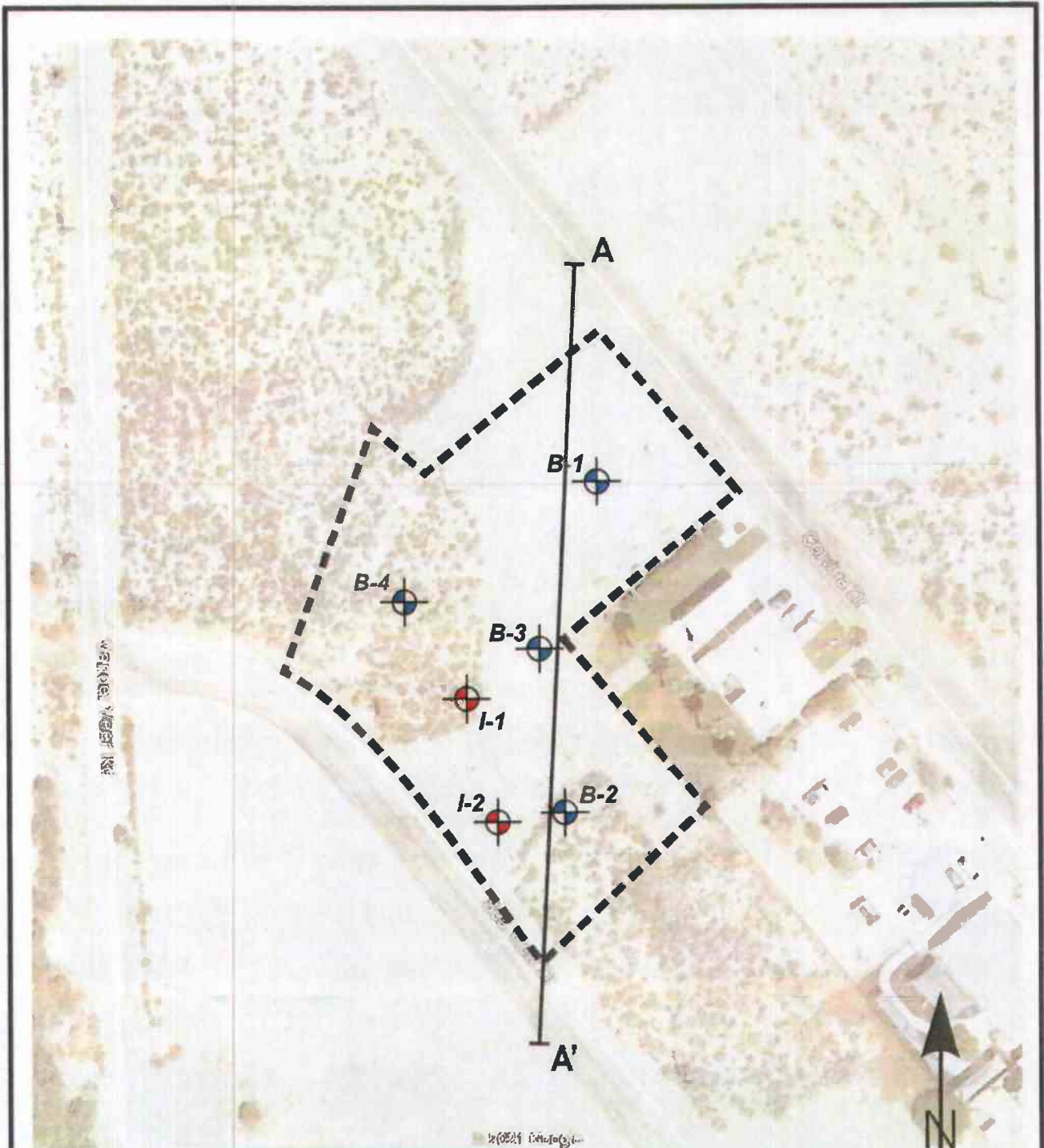
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Vicinity Map

Plate
A-1



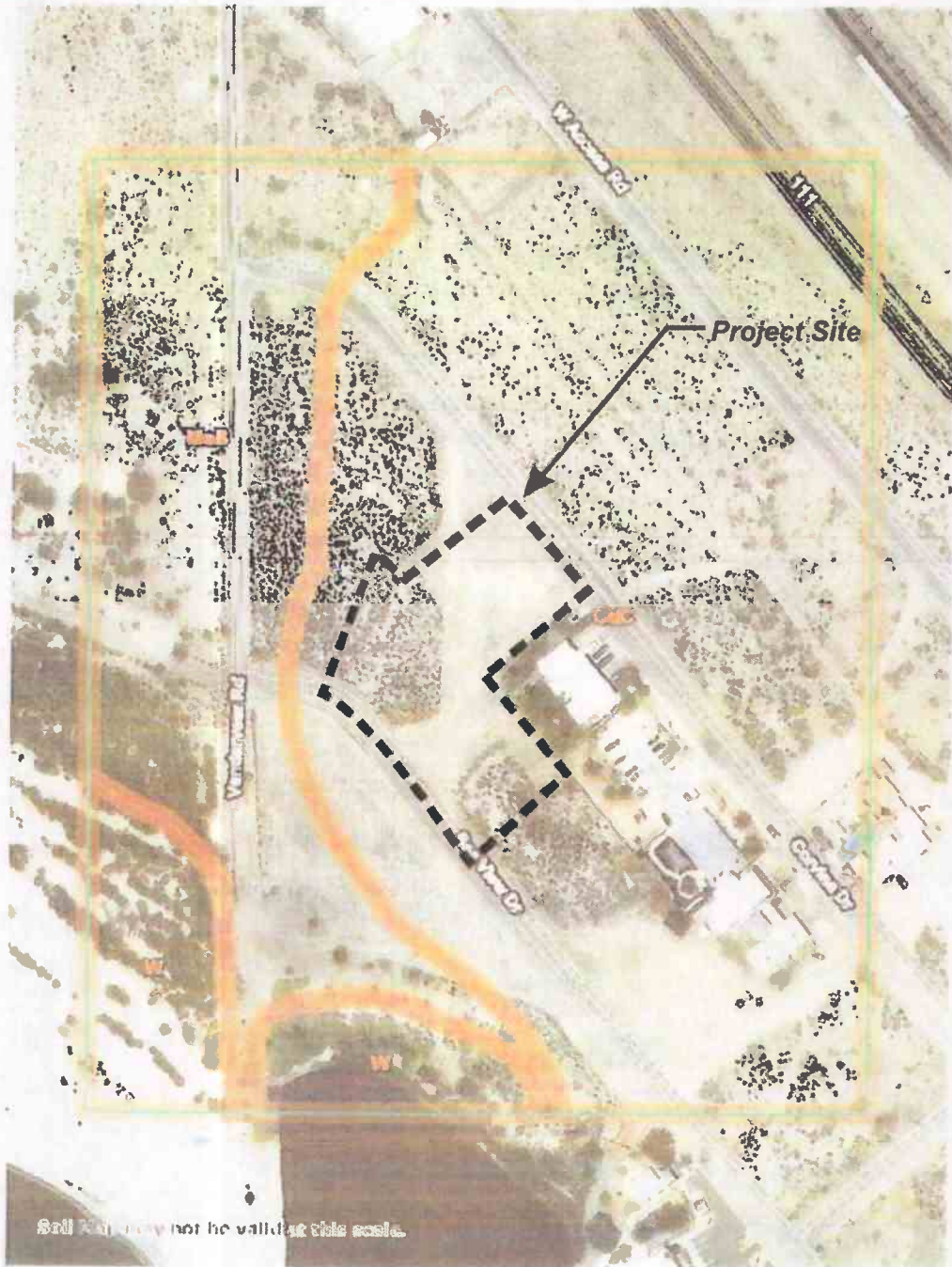
Legend

 *Approximate Boring Location*
 *Approximate Infiltration Test Location*

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Site and Exploration Plan

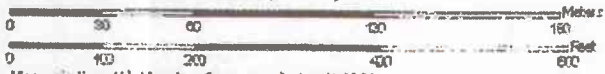
**Plate
 A-2**



43° 58' 30" N



Map Scale: 1:2,100 if printed on A portrait (8.5" x 11") sheet



Mapping Unit: Web Mercator. Corner coordinates: W3584

43° 58' 30" N



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

Page 1 of 1

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Soil Map

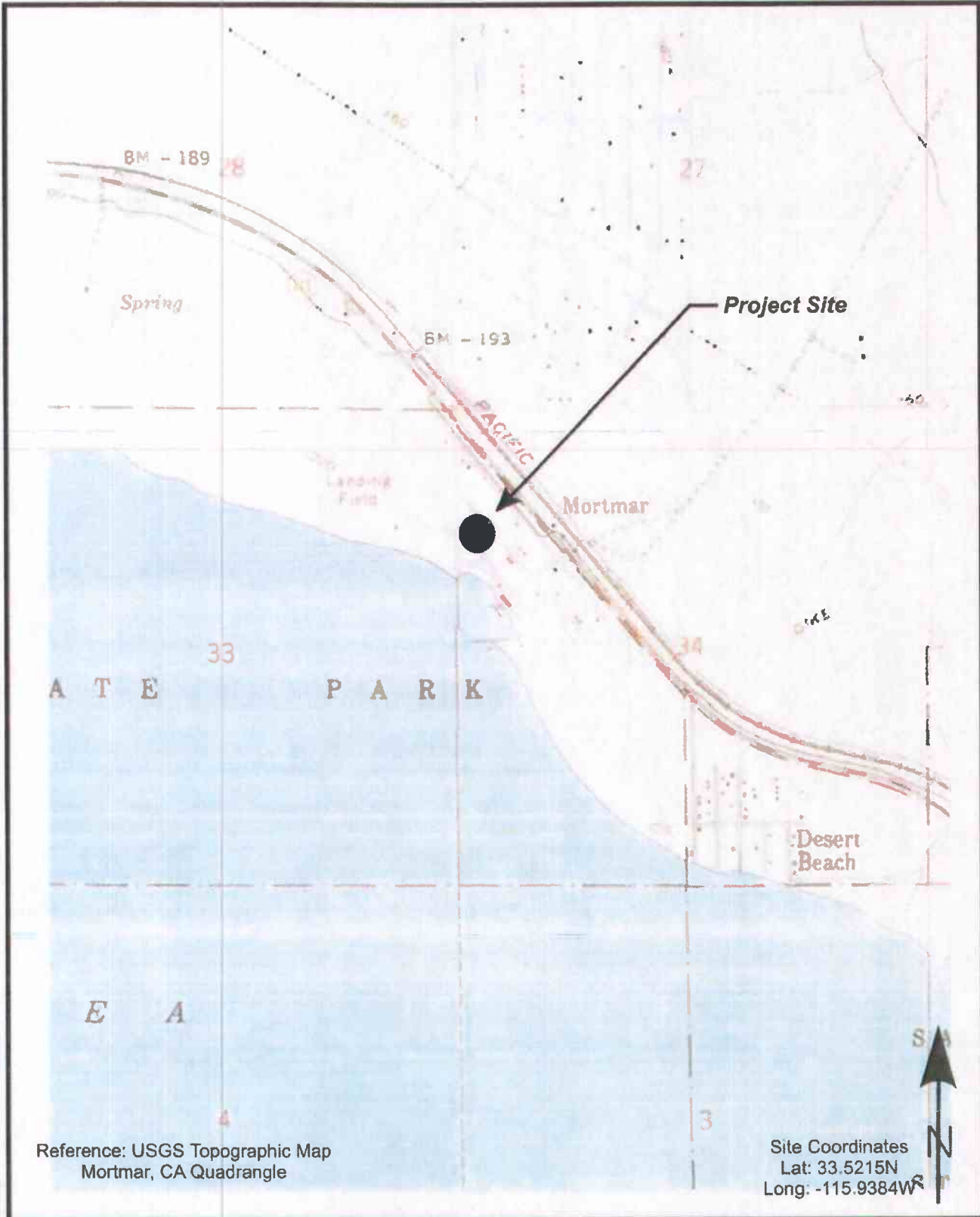
Plate A-3

Soil Map—Riverside County, Coachella Valley Area, California

MAP LEGEND		MAP INFORMATION
<p>Area of Interest (AOI)</p> <p> Area of Interest (AOI)</p> <p>Soils</p> <p> Soil Map Unit Polygons</p> <p> Soil Map Unit Lines</p> <p> Soil Map Unit Points</p> <p>Special Point Features</p> <p> Blowout</p> <p> Borrow Pit</p> <p> Clay Spot</p> <p> Closed Depression</p> <p> Gravel Pit</p> <p> Gravelly Spot</p> <p> Landfill</p> <p> Lava Flow</p> <p> Marsh or swamp</p> <p> Mine or Quarry</p> <p> Miscellaneous Water</p> <p> Perennial Water</p> <p> Rock Outcrop</p> <p> Saline Spot</p> <p> Sandy Spot</p> <p> Severely Eroded Spot</p> <p> Sinkhole</p> <p> Slide or Slip</p> <p> Sodic Spot</p>	<p> Spoil Area</p> <p> Stony Spot</p> <p> Very Stony Spot</p> <p> Wet Spot</p> <p> Other</p> <p> Special Line Features</p> <p>Water Features</p> <p> Streams and Canals</p> <p>Transportation</p> <p> Rails</p> <p> Interstate Highways</p> <p> US Routes</p> <p> Major Roads</p> <p> Local Roads</p> <p>Background</p> <p> Aerial Photography</p>	<p>The soil surveys that comprise your AOI were mapped at 1:24,000.</p> <p>Warning: Soil Map may not be valid at this scale.</p> <p>Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.</p> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Riverside County, Coachella Valley Area, California Survey Area Data: Version 12, Jun 8, 2020</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Apr 15, 2016—Sep 20, 2017</p> <p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CdC	Carsitas gravelly sand, 0 to 9 percent slopes	14.5	64.8%
MaB	Myoma fine sand, 0 to 5 percent slopes	5.8	26.2%
W	Water	2.0	9.0%
Totals for Area of Interest		22.3	100.0%

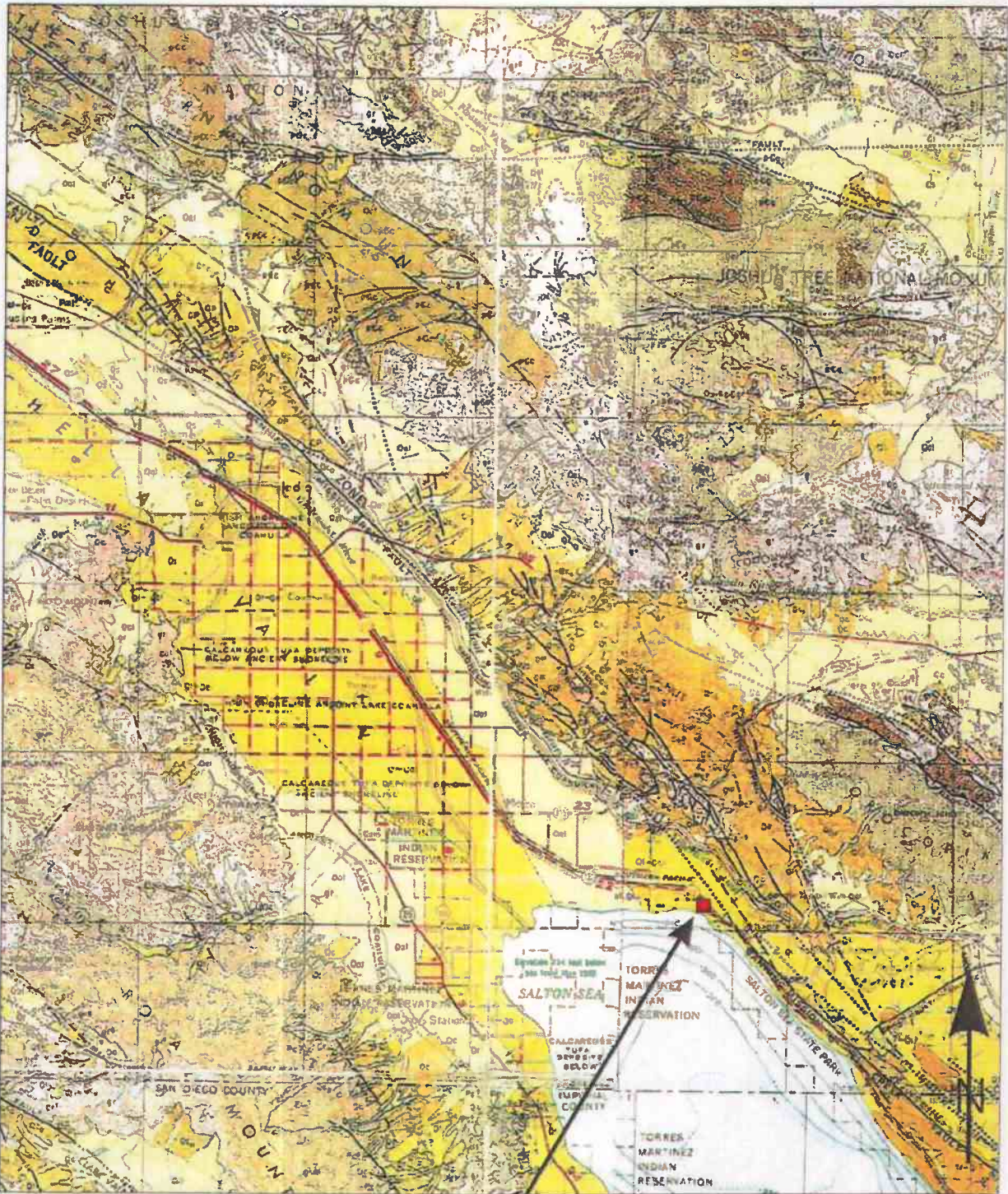


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Topographic Map

Plate
A-4



Geology Map of California - Santa Ana and Salton Sea Sheets (1:250,000)

Project Site

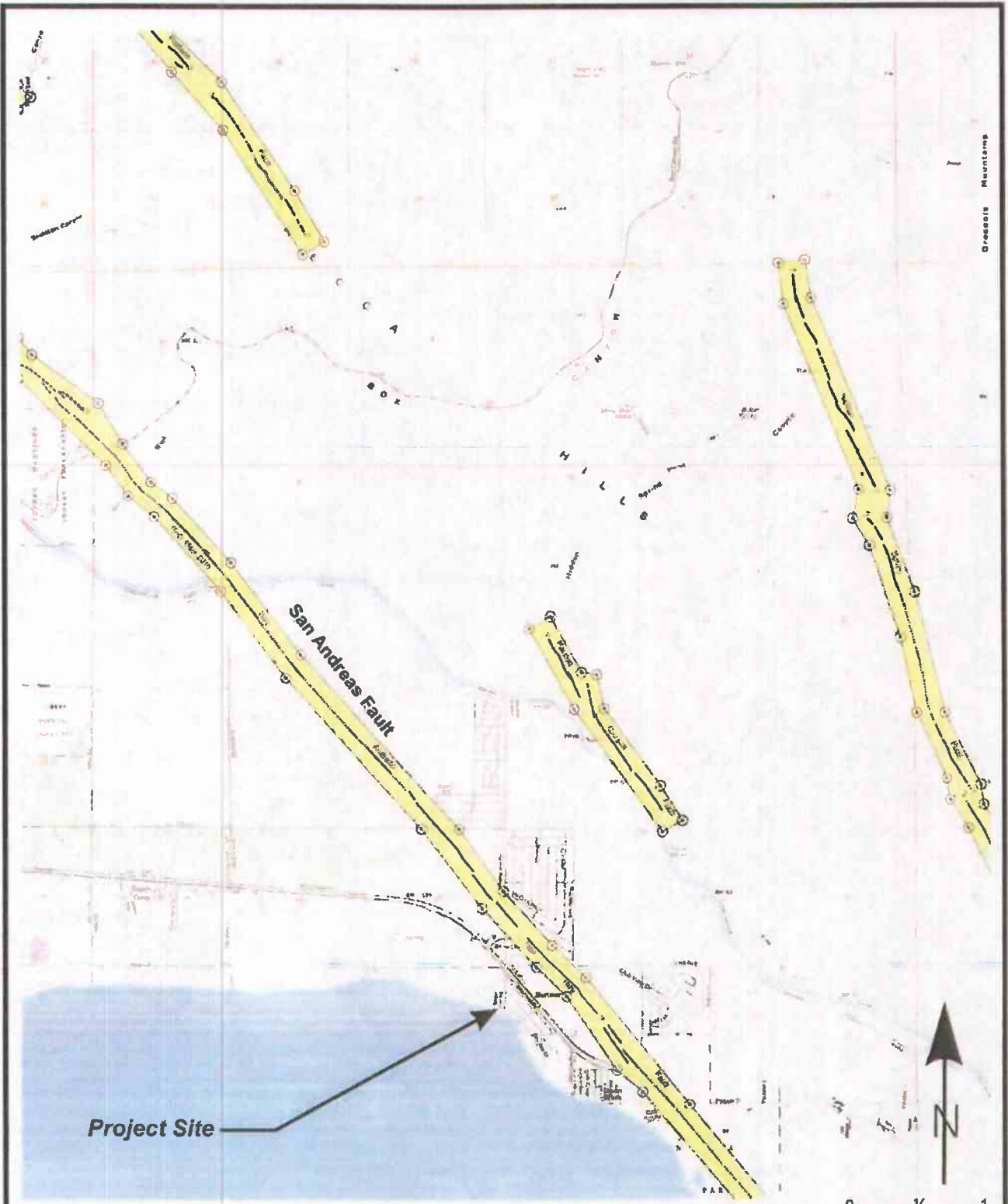
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Regional Geologic Map

Plate
A-5



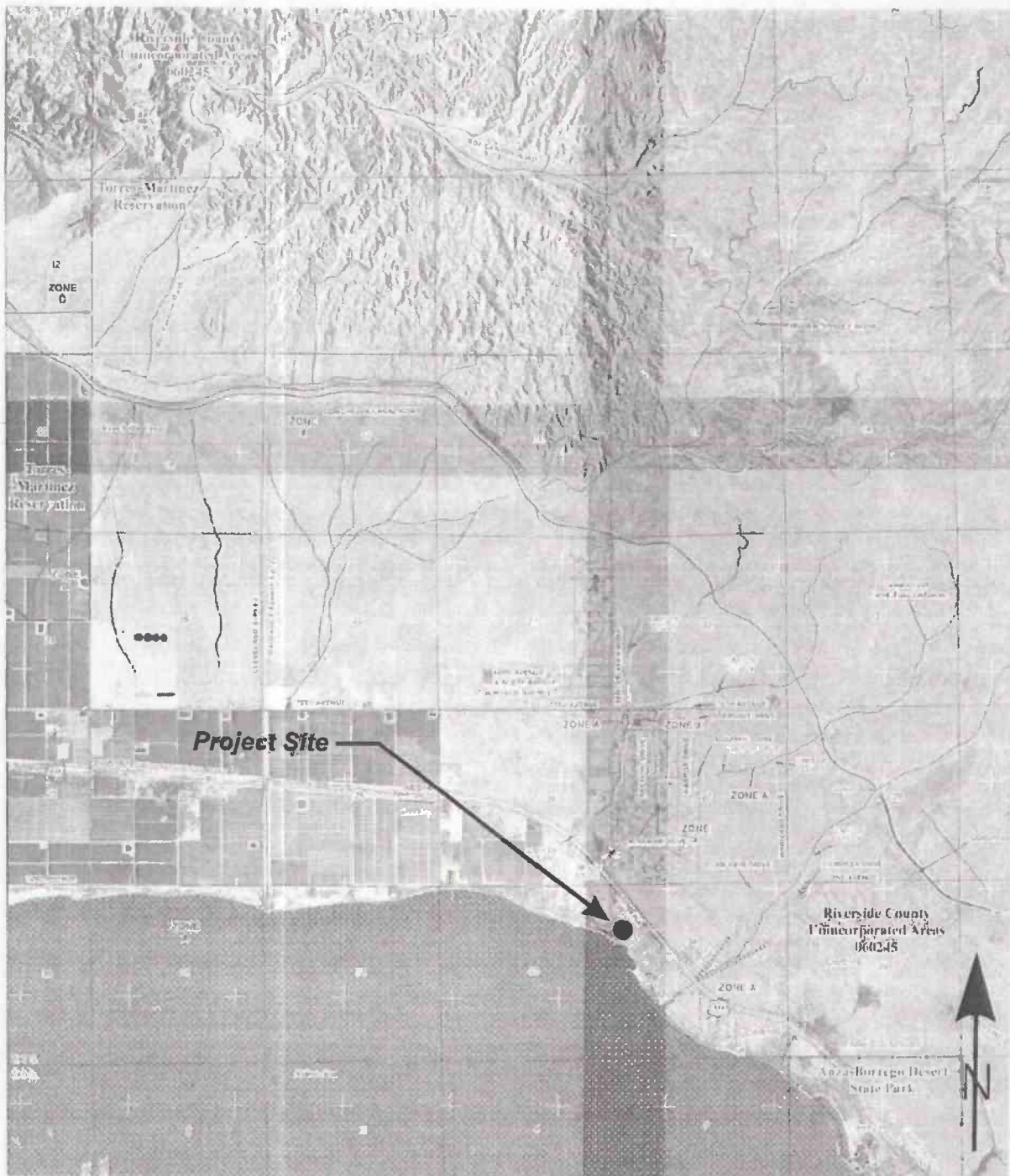
Mortmar, CA 7.5 Min. Quadrangle



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A-P Earthquake Fault Zone Map

**Plate
 A-6**



Reference: Federal Emergency Management Agency (FEMA)
 North Shore, California, Riverside County
 Community-Panel Number 06066C2876G

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 Geo-Engineers and Geologists

Project No.: LP21055

Flood Insurance Rate Map (FIRM)

Plate
 A-7

Fault Map



Legend

Faults

Fault Zones



Project Site

Notes



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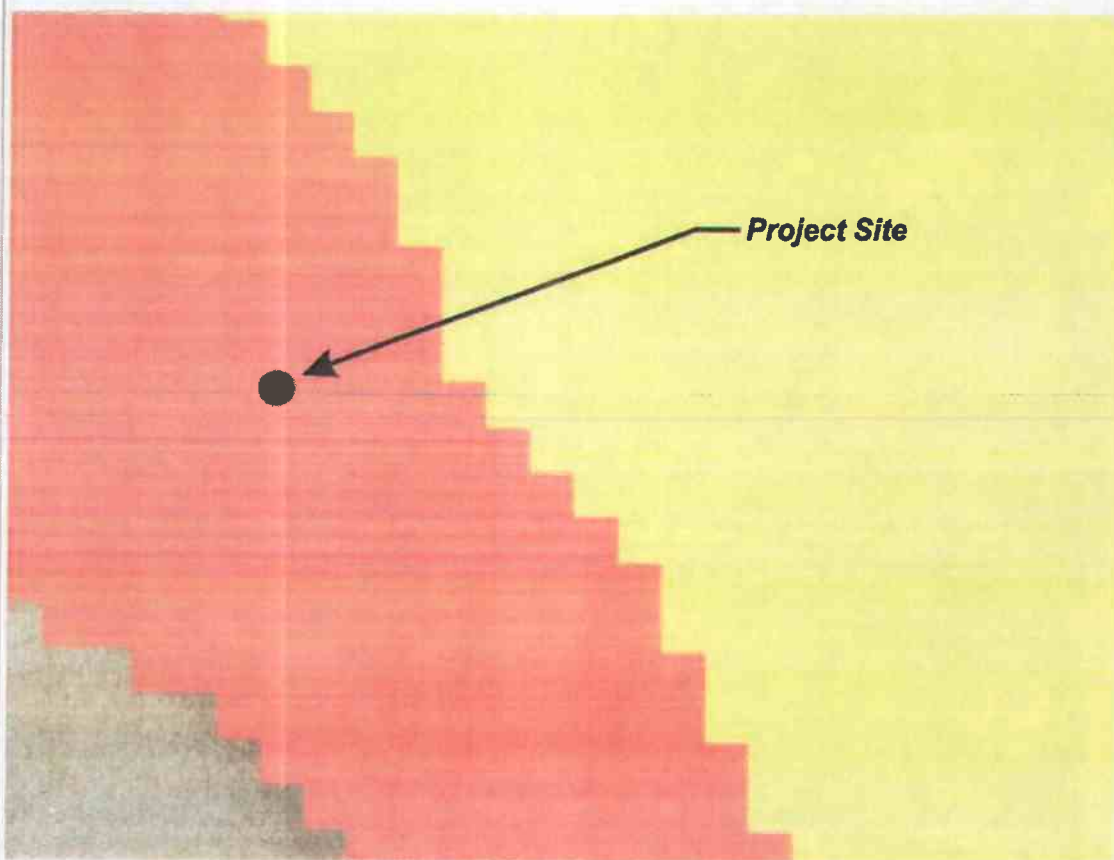
LANDMARK
Geo-Engineers and Geologists

Project No.: LP21055

Riverside County
Geographic Information System (GIS)
Fault Zones

Plate
A-8

Liquefaction Map



Notes



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REPORT PRINTED ON: 10/01/2009 2:48:20 PM

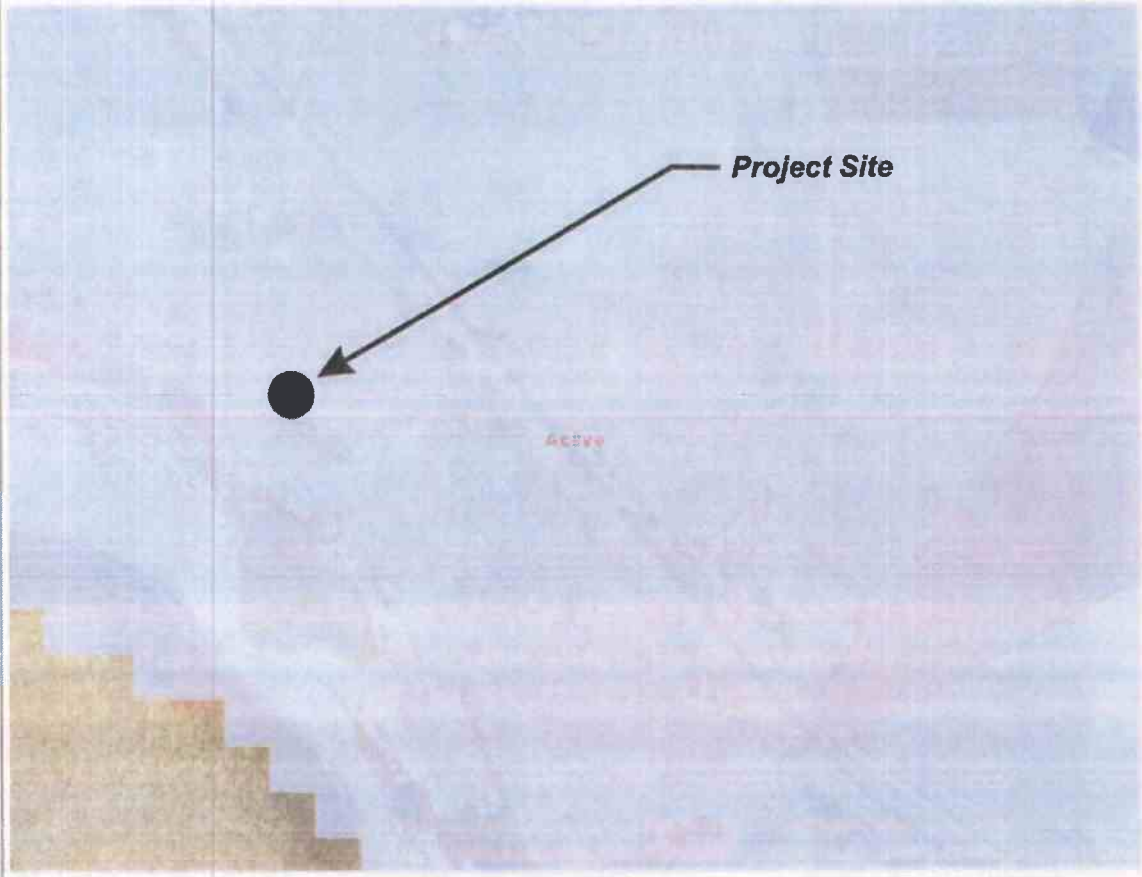
Riverside County GIS

LANDMARK
Geo-Engineers and Geologists
Project No.: LP21055

Riverside County
Geographic Information System (GIS)
Liquefaction Zones

Plate
A-9

Subsidence Map



Legend

Subsidence



Notes



1:2

500 Feet

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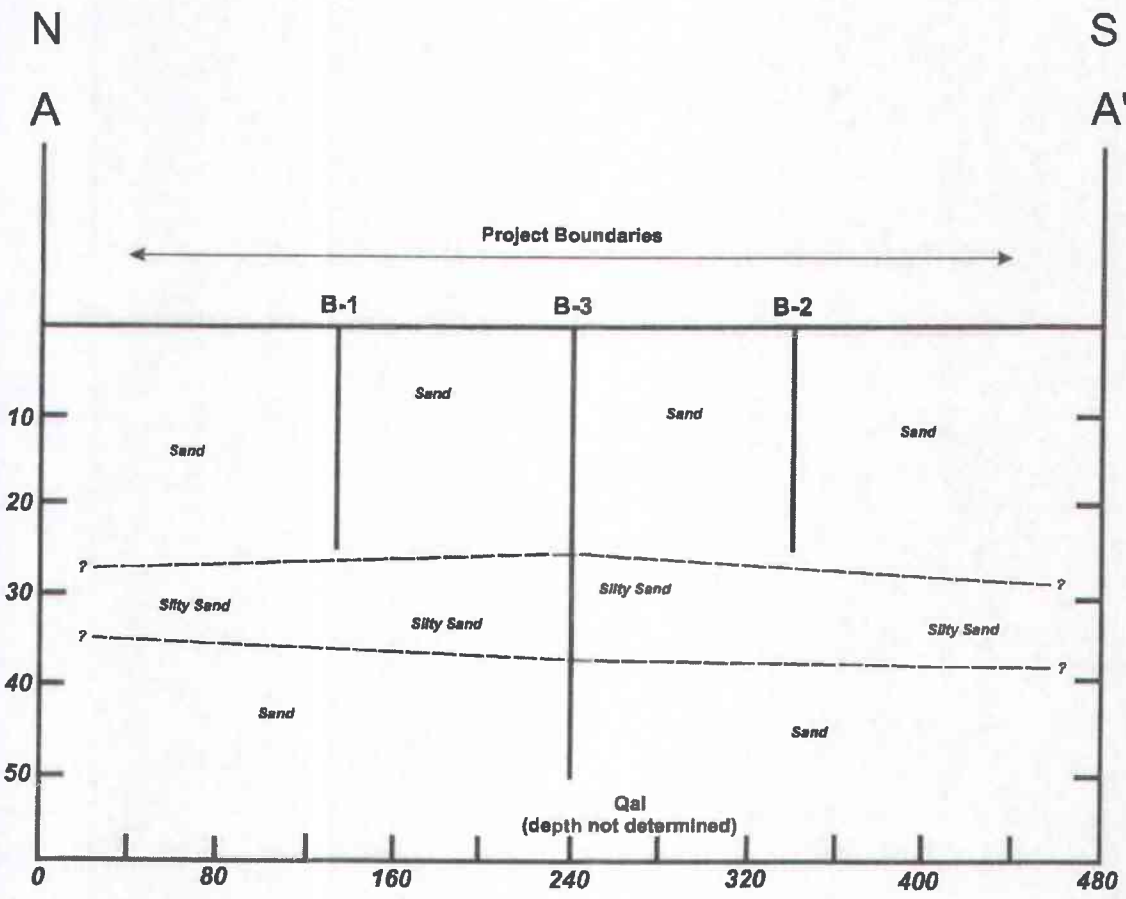
REPORT PRINTED ON 10/20/2012 4:53 PM

Riverside County GIS

LANDMARK
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Project No.: LP21055

Riverside County
Geographic Information System (GIS)
Subsidence

Plate
A-10



Scale
 1" = 80' Horizontal
 1" = 20' Vertical

LANDMARK
 Geo-Engineers and Geologists

Project No.: LP21055

Schematic Geologic
 Cross-section

Plate
 A-11

APPENDIX B

DEPTH	FIELD			LOG OF BORING No. B-1 SHEET 1 OF 1	LABORATORY			
	SAMPLE	USCS CLASS.	BLOW COUNT		POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5			25		SILTY SAND (SM): Brown, dry to humid, medium dense, fine to coarse grained	114.3	3.6	Passing #200 = 21.6%
			45		SAND (SP-SM): Lt brown, dry, dense, medium to coarse grained	125.4	2.4	Passing #200 = 8.0%
10			66		SAND (SP): Brown, dry, very dense to hard, fine to coarse grained, some gravel	121.3	1.5	Passing #200 = 3.9%
			50/6"			124.7	1.5	
15			50/6"		SAND (SP-SM): Brown, dry to saturated, dense to hard, medium to coarse grained, some gravel	116.6	3.0	
20				67				
25			54		SAND (SP): Gray, dry, very dense, coarse grained			Passing #200 = 4.7%
30								
35								
40								
45								
50								
55								
60								

Groundwater measured at a depth of 20.7 feet at time of drilling.
This is not considered the stabilized groundwater depth as groundwater may rise to a level higher than that measured in borehole.

DATE DRILLED: 3/17/21	TOTAL DEPTH: 26.5 feet	DEPTH TO WATER: 19.0 ft.
LOGGED BY: L. Jackson	TYPE OF BIT: Hollow Stem Auger	DIAMETER: 8 in.
SURFACE ELEVATION: Approximately -215 ft	HAMMER WT.: 140 lbs.	DROP: 30 in.

PROJECT NO. LP21055



PLATE B-1

DEPTH	FIELD				LOG OF BORING No. B-2 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5			51		SAND (SP-SM): Lt. brown, dry, dense, medium to coarse grained, some gravel	111.3	1.3	Passing #200 = 8.7%
10			38		SAND (SP): Brown, dry, dense to hard, fine to coarse grained, some gravel	116.6	2.7	Passing #200 = 4.6%
10			50/6"			126.2	1.3	
15			50/6"		No recovery	132.5	1.5	
15			50/6"					
20			30		SAND (SP-SM): Brown, saturated, dense, fine to coarse grained, some gravel		26.2	
25			34					Passing #200 = 6.9%
30								
35								
40								
45								
50								
55								
60					Groundwater measured at a depth of 21.0 feet at time of drilling. This is not considered the stabilized groundwater depth as groundwater may rise to a level higher than that measured in borehole.			

DATE DRILLED: 3/17/21	TOTAL DEPTH: 26.5 feet	DEPTH TO WATER: 21.0 ft.
LOGGED BY: L. Jackson	TYPE OF BIT: Hollow Stem Auger	DIAMETER: 8 in.
SURFACE ELEVATION: Approximately -215 ft	HAMMER WT.: 140 lbs.	DROP: 30 in.

PROJECT NO. LP21055



PLATE B-2

DEPTH	FIELD				LOG OF BORING No. B-3 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5			71		SAND (SP-SM): Dark brown to brown, dry to damp, dense to very dense, medium to coarse grained, some gravel	123.9	4.1	
			37			107.4	1.7	Passing #200 = 5.4%
10			69		SAND (SP): Gray, dry, very dense to hard, fine to coarse grained, some gravel	115.3	1.6	
			75			112.6	1.7	Passing #200 = 3.3%
15			50/6*		SAND (SP-SM): Brown, dry to saturated, dense to hard, medium to coarse grained, some gravel	118.5	2.9	Passing #200 = 5.5%
20			53					
25			37		SILTY SAND (SM): Dark brown, saturated, medium dense to dense, fine to coarse grained			Passing #200 = 17.3%
30			57					Passing #200 = 18.8%
35			25					
40			17		SAND (SP-SM): Brown, saturated, medium dense to hard, medium to coarse grained, some gravel at 45 ft.			Passing #200 = 11.3%
45			80					
50			53					Passing #200 = 11.7%
55					Groundwater measured at a depth of 19.5 feet at time of drilling. This is not considered the stabilized groundwater depth as groundwater may rise to a level higher than that measured in borehole.			
60								

DATE DRILLED: 3/17/21 TOTAL DEPTH: 51.5 feet DEPTH TO WATER: 19.5 ft.
 LOGGED BY: L. Jackson TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.
 SURFACE ELEVATION: Approximately -215 ft HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT NO. LP21055



PLATE B-3

DEPTH	FIELD			LOG OF BORING No. B-4 SHEET 1 OF 1	LABORATORY			
	SAMPLE	USCS CLASS.	BLOW COUNT		POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5			68		SILTY SAND (SM): Brown, dry to humid, very dense, fine to medium grained	128.7	3.7	Passing #200 = 14.0%
10			39		SAND (SP-SM): Brown, dry, dense to hard, medium to coarse grained, some gravel	112.4	4.3	Passing #200 = 5.8%
			66			113.5	2.0	
			82/11"			114.0	1.5	
15			50/6"		SAND (SP): Brown, damp to saturated, dense to hard, fine to coarse grained, some gravel	121.7	3.1	Passing #200 = 4.2%
20			56				11.3	Passing #200 = 5.0%
25			58		SAND (SP-SM): Brown, saturated, dense, fine to coarse grained, some gravel			Passing #200 = 9.2%
30								
35								
40								
45								
50								
55								
60								

Groundwater measured at a depth of 19.0 feet at time of drilling. This is not considered the stabilized groundwater depth as groundwater may rise to a level higher than that measured in borehole.

DATE DRILLED: 3/17/21 TOTAL DEPTH: 26.5 feet DEPTH TO WATER: 19.0 ft.
 LOGGED BY: L. Jackson TYPE OF BIT: Hollow Stem Auger DIAMETER: 8 in.
 SURFACE ELEVATION: Approximately -215 ft HAMMER WT.: 140 lbs. DROP: 30 in.

PROJECT NO. LP21055	LANDMARK Geo-Engineers and Geologists	PLATE B-4
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DEFINITION OF TERMS

	PRIMARY DIVISIONS	SYMBOLS	SYMBOLS	SECONDARY DIVISIONS	
Coarse grained soils More than half of material is larger than No. 200 sieve	Gravels	Clean gravels (less than 5% fines)		GW Well graded gravels, gravel-sand mixtures, little or no fines	
		More than half of coarse fraction is larger than No. 4 sieve	Gravel with fines		GP Poorly graded gravels, or gravel-sand mixtures, little or no fines
			Sands	Clean sands (less than 5% fines)	
		Gravel with fines			GC Clayey gravels, gravel-sand-clay mixtures, plastic fines
	More than half of coarse fraction is smaller than No. 4 sieve	Sands	Clean sands (less than 5% fines)		SW Well graded sands, gravelly sands, little or no fines
			Sands with fines	Poorly graded sands or gravelly sands, little or no fines	
		Sands with fines		Silty sands, sand-silt mixtures, non-plastic fines	
			Sands with fines	Clayey sands, sand-clay mixtures, plastic fines	
Fine grained soils More than half of material is smaller than No. 200 sieve	Silts and clays				ML Inorganic silts, clayey silts with slight plasticity
	Liquid limit is less than 50%			CL Inorganic clays of low to medium plasticity, gravelly, sandy, or lean clays	
	Silts and clays			OL Organic silts and organic clays of low plasticity	
	Liquid limit is more than 50%			MH Inorganic silts, micaceous or diatomaceous silty soils, elastic silts	
	Silts and clays			CH Inorganic clays of high plasticity, fat clays	
	Liquid limit is more than 50%			OH Organic clays of medium to high plasticity, organic silts	
Highly organic soils			PT Peat and other highly organic soils		

GRAIN SIZES

Silts and Clays	Sand			Gravel		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		
	200	40	10	4	3/4"	3"	12"
	US Standard Series Sieve			Clear Square Openings			

Sands, Gravels, etc.	Blows/ft. *
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

Clays & Plastic Silts	Strength **	Blows/ft. *
Very Soft	0-0.25	0-2
Soft	0.25-0.5	2-4
Firm	0.5-1.0	4-8
Stiff	1.0-2.0	8-16
Very Stiff	2.0-4.0	16-32
Hard	Over 4.0	Over 32

* Number of blows of 140 lb. hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 in. I.D.) split spoon (ASTM D1586).

** Unconfined compressive strength in tons/s.f. as determined by laboratory testing or approximated by the Standard Penetration Test (ASTM D1586), Pocket Penetrometer, Torvane, or visual observation.

Type of Samples:

Ring Sample
 Standard Penetration Test
 Shelby Tube
 Bulk (Bag) Sample

Drilling Notes:

1. Sampling and Blow Counts
 - Ring Sampler - Number of blows per foot of a 140 lb. hammer falling 30 inches.
 - Standard Penetration Test - Number of blows per foot.
 - Shelby Tube - Three (3) inch nominal diameter tube hydraulically pushed.
2. P. P. = Pocket Penetrometer (tons/s.f.).
3. NR = No recovery.
4. GWT = Ground Water Table observed @ specified time.

LANDMARK

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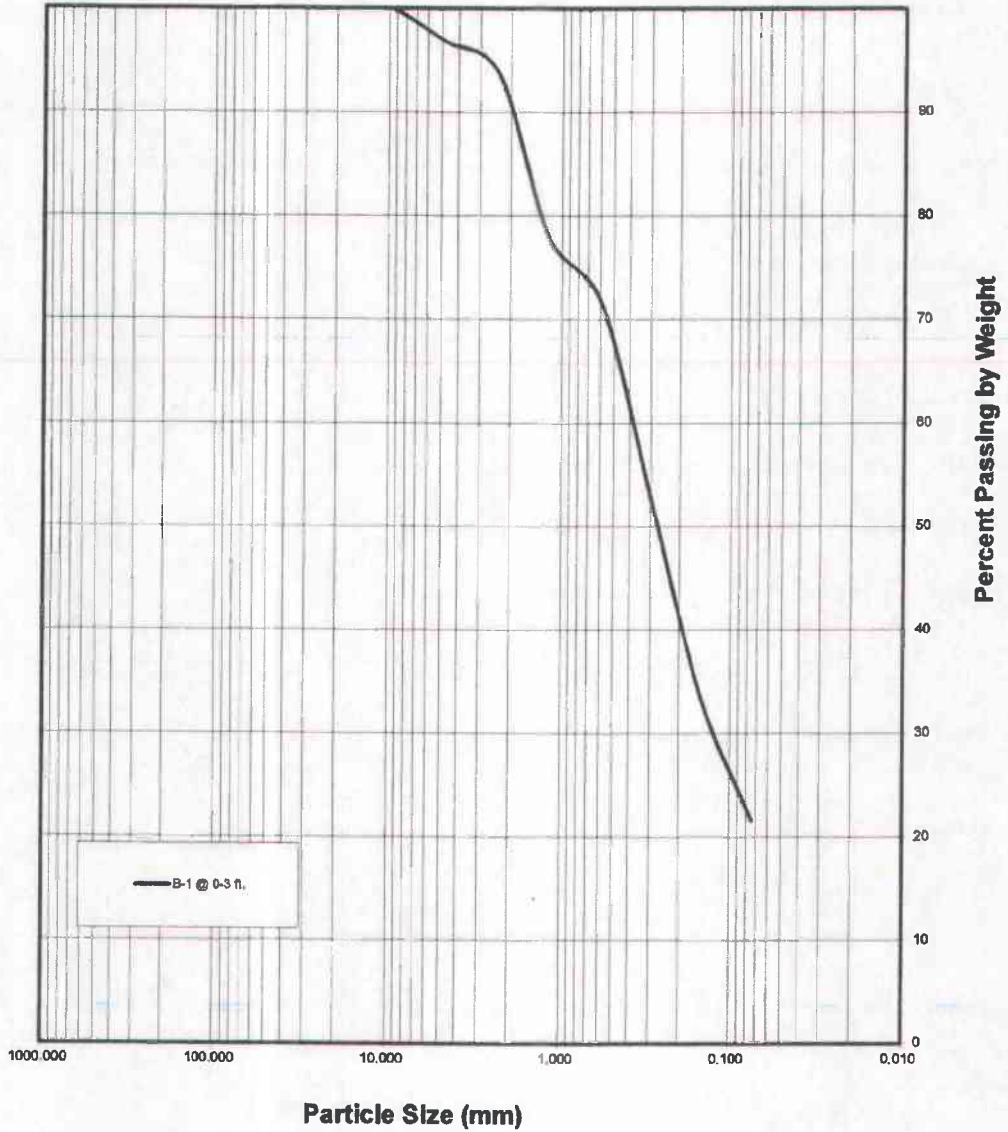
Project No. LP21055

Key to Logs

**Plate
B-6**

APPENDIX C

SIEVE ANALYSIS						
Cobbles and Boulders	Gravel		Sand			Silt and Clay
	Coarse	Fine	Coarse	Medium	Fine	



LANDMARK
Geotechnical and Geologists

Project No.: LP21055

Grain Size Analysis

Plate
C-1

LANDMARK CONSULTANTS, INC.

CLIENT: County of Riverside
PROJECT: Fire Station 41 - North Shore, CA
JOB No.: LP21055
DATE: 03/29/21

CHEMICAL ANALYSIS

	Boring:	B-1		Caltrans Method
Sample Depth, ft:		0-3		
pH:		8.4		643
Electrical Conductivity (mmhos):		-		424
Resistivity (ohm-cm):		400		643
Chloride (Cl), ppm:		1,080		422
Sulfate (SO ₄), ppm:		4,494		417

General Guidelines for Soil Corrosivity

Material Affected	Chemical Agent	Amount in Soil (ppm)	Degree of Corrosivity
Concrete	Soluble Sulfates	0 - 1,000	Low
		1,000 - 2,000	Moderate
		2,000 - 20,000	Severe
		> 20,000	Very Severe
Normal Grade Steel	Soluble Chlorides	0 - 200	Low
		200 - 700	Moderate
		700 - 1,500	Severe
		> 1,500	Very Severe
Normal Grade Steel	Resistivity	1 - 1,000	Very Severe
		1,000 - 2,000	Severe
		2,000 - 10,000	Moderate
		> 10,000	Low



Project No.: LP21055

**Selected Chemical
Test Results**

**Plate
C-2**

Client: County of Riverside

Project: Fire Station 41 - North Shore, CA

Project No.: LP21055

Date: 3/29/2021

Lab. No.: N/A

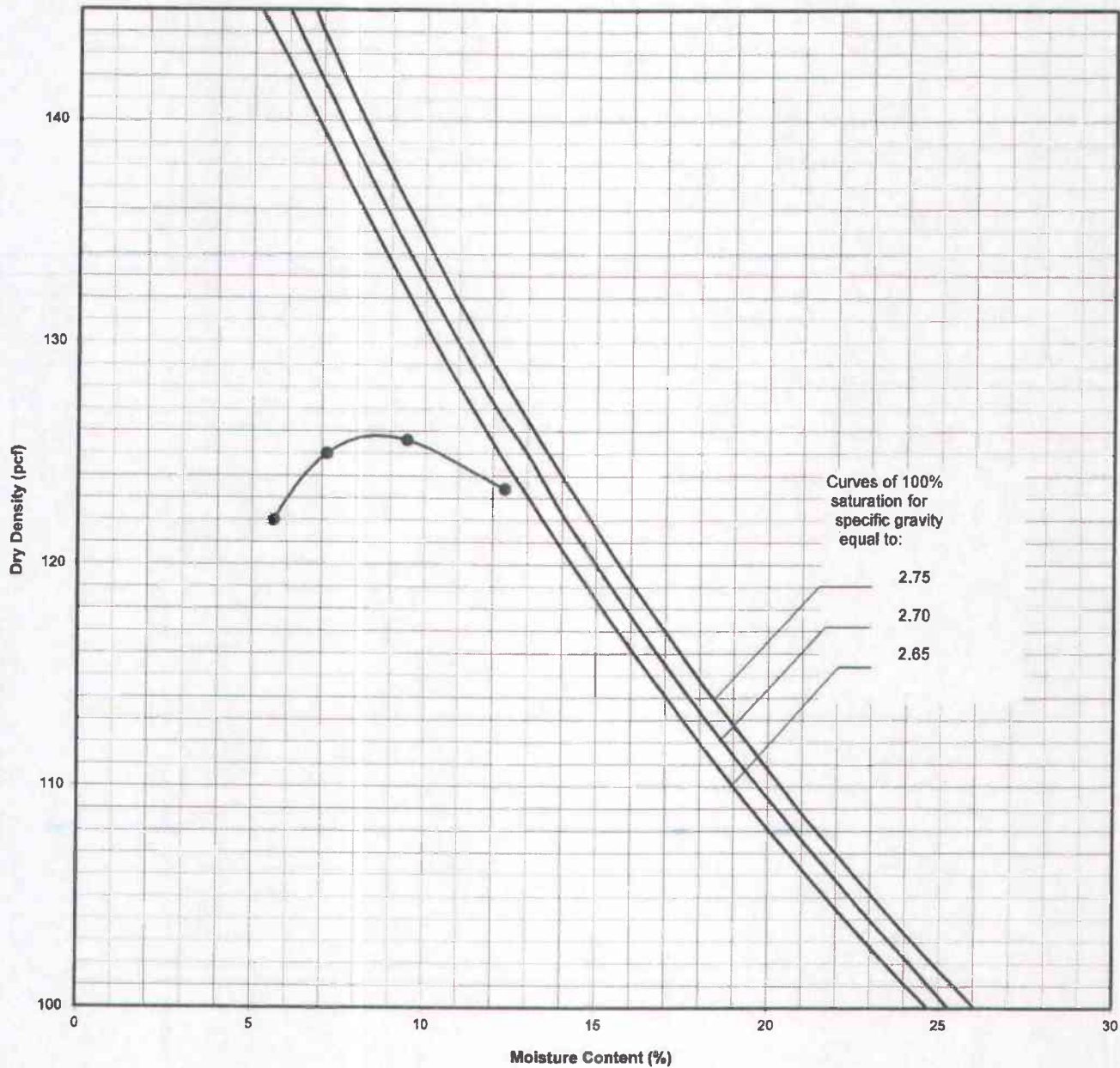
Soil Description: Brown Silty Sand (SM)

Sample Location: B-1 @ 0-3 ft.

Test Method: ASTM D-1557 A

Maximum Dry Density (pcf): 125.8

Optimum Moisture Content (%): 8.6



LANDMARK
Geo-Engineers and Geologists

Project No.: LP21055

Moisture Density Relationship

Plate
C-3

APPENDIX D

Liquefaction Evaluation and Settlement Calculation

Project Name: Fire Station No. 41 - North Shore, CA
Project No.: LP21055
Location: B-3

Maximum Credible Earthquake	7.4	Borehole Diameter	8	in
Design Ground Motion	1.15	Rod Length	3	ft.
Total Unit Weight	110	rod Length	0.91	m.
Water Unit Weight	62.4	Liners	N	
Depth to Groundwater	18	K aging	1	
Depth to Groundwater	5.79	Percentile of Liquefaction	54	
Hammer Efficiency	85			
Required Factor of Safety	1.3			

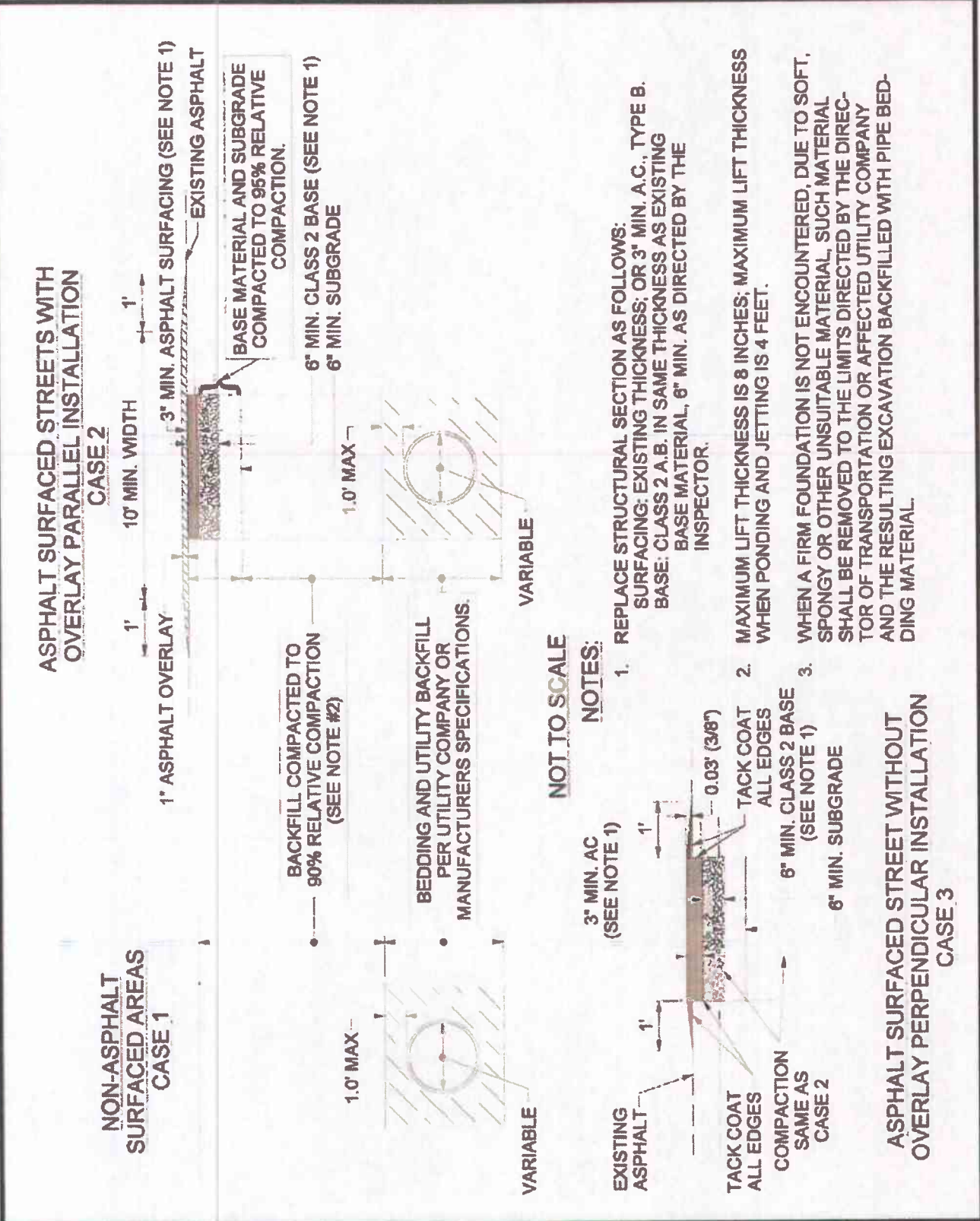
Boring Data				Sampling Corrections								Corrected	Fines	Compute Deterministic Vertical Strain				Individual Layer
Depth	Blow Counts	Liquefiable	σ'_v (kPa)	Sampler Diameter	SPT N_{60}	Energy C_E	Borehole C_B	Rod C_R	Liner C_L	Overburden C_{ov}	SPT $(N_{60})_{sp}$	Content %	$(N_{60})_{sp}^{adj}$	$CRR(N_{60}^{adj})$	CSR^{adj}	F_L^{adj}	Subsidence (Inches)	
2.5	71	1	13.17	1	71	1.42	1.15	0.75	1.0	1.08	94	5	94.01	10.00		10.00	0.00	
5	37	1	26.33	1	37	1.42	1.15	0.75	1.0	1.30	59	5	58.80	10.00		10.00	0.00	
7.5	69	1	39.50	1	69	1.42	1.15	0.80	1.0	1.04	94	3	93.50	10.00		10.00	0.00	
10	75	1	52.67	1	75	1.42	1.15	0.80	1.0	1.01	99	3	99.02	10.00		10.00	0.00	
16	100	1	79.00	1	100	1.42	1.15	0.85	1.0	0.97	136	6	134.84	10.00		10.00	0.00	
20	53	1	102.35	1	53	1.42	1.15	0.95	1.0	1.00	82	5	81.58	10.00	0.78	18.00	0.00	
26	37	1	113.74	1	37	1.42	1.15	0.85	1.0	0.88	55	17	58.74	10.00	0.67	10.00	0.00	
30	57	1	125.14	1	57	1.42	1.15	1.00	1.0	0.99	92	19	90.23	10.00	0.79	10.00	0.00	
35	25	1	136.53	1	25	1.42	1.15	1.00	1.0	0.81	37	19	41.36	2.71	0.84	6.10	0.00	
40	17	1	147.93	1	17	1.42	1.15	1.00	1.0	0.86	24	11	26.53	10.00	0.95	10.00	0.00	

Based on Proceeding of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils, Technical Report NCEER-97-0022, December 31, 1997.
 Sampling Corrections from Idriss and Boulenger (2010)

Total Settlement (in.) 0.00

APPENDIX E





APPENDIX F

LANDMARK CONSULTANTS, INC

Project:	Fire Station 41	Project No:	LP21055	Date:	03/21/21
Test Hole No:	I-1	Tested By:	Alex A		
Depth of Test Hole, D_t :	5'	USCS Soil Classification:			
Test Hole Dimensions (inches)				Length	Width
Diameter (if round)=	6"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6" (y/n)
1	8:50	9:15	25.00	84.00	96.00	12.00	y
2	9:15	9:40	25.00	72.00	96.00	24.00	n

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	10:02	10:12	10.00	24.00	28.00	4.00	2.50
2	10:12	10:22	10.00	28.00	33.00	5.00	2.00
3	10:22	10:32	10.00	33.00	38.00	5.00	2.00
4	10:32	10:42	10.00	28.00	34.00	6.00	1.67
5	10:42	10:52	10.00	34.00	39.00	5.00	2.00
6	10:52	11:02	10.00	39.00	44.00	5.00	2.00
7							
8							
9							
10							
11							
12							

COMMENTS:



Project No.: LP21055

Percolation Test Results

Plate
F-1

PERCOLATION RATE CONVERSION

CLIENT: County of Riverside
PROJECT: Fire Station 41
PROJECT NO.: LP21055
DATE: 4/2/2021

TEST HOLE NO: I-1

Time interval, $\Delta t = 10$ minutes Initial Depth to Water, $D_0 = 39$ inches
Final Depth to Water, $D_f = 44$ inches Total Depth of Test Hole, $D_T = 60$ inches
*Test Hole Radius, $r = 3$ inches

The conversion equation is used:

$$I_t = \frac{\Delta H 60 r}{\Delta t (r + 2H_{avg})}$$

" H_0 " is the initial height of water at the selected time interval

$$H_0 = D_T - D_0 = 60 - 39 = 21 \text{ inches}$$

" H_f " is the final height of water at the selected time interval

$$H_f = D_T - D_f = 60 - 44 = 16 \text{ inches}$$

" ΔH " is the change in height over the time interval

$$\Delta H = \Delta D = H_0 - H_f = 21 - 16 = 5 \text{ inches}$$

" H_{avg} " is the average head height over the time interval

$$H_{avg} = (H_0 + H_f) / 2 = (21 + 16) / 2 = 18.5 \text{ inches}$$

" I_t " is the tested infiltration rate

$$I_t = \frac{\Delta H 60 r}{\Delta t (r + 2H_{avg})} = \frac{(5 \text{ in})(60 \text{ min/hr})(3 \text{ in})}{(10 \text{ min})(3 \text{ in} + 2(18.5 \text{ in}))} = 2.25 \text{ in/hr}$$

LANDMARK
Geo-Engineers and Geologists

Project No.: LP21055

Percolation Rate Conversion

Plate
F-2

LANDMARK CONSULTANTS, INC

Project:	Fire Station 41	Project No:	LP21055	Date:	03/21/21
Test Hole No:	I-2	Tested By:	Alex A		
Depth of Test Hole, D_t :	5'	USCS Soil Classification:			
Test Hole Dimensions (Inches)			Length	Width	
Diameter (if round)=	6"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	8:55	9:20	25.00	80.00	96.00	16.00	y
2	9:20	9:45	25.00	76.00	96.00	20.00	n

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	10:04	10:14	10.00	20.00	26.00	6.00	1.67
2	10:14	10:24	10.00	26.00	32.00	6.00	1.67
3	10:24	10:34	10.00	32.00	37.50	5.50	1.82
4	10:34	10:44	10.00	22.00	27.50	5.50	1.82
5	10:44	10:54	10.00	27.50	32.50	5.00	2.00
6	10:54	11:04	10.00	32.50	37.50	5.00	2.00
7							
8							
9							
10							
11							
12							

COMMENTS:



Project No.: LP21055

Percolation Test Results

Plate F-3

PERCOLATION RATE CONVERSION

CLIENT: County of Riverside
PROJECT: Fire Station 41
PROJECT NO.: LP21055
DATE: 4/2/2021

TEST HOLE NO: I-2

Time interval, $\Delta t = 10$ minutes Initial Depth to Water, $D_0 = 32.5$ inches
Final Depth to Water, $D_f = 37.5$ inches Total Depth of Test Hole, $D_T = 60$ inches
*Test Hole Radius, $r = 3$ inches

The conversion equation is used:

$$I_t = \frac{\Delta H 60 r}{\Delta t (r + 2H_{avg})}$$

" H_0 " is the initial height of water at the selected time interval

$$H_0 = D_T - D_0 = 60 - 32.5 = 27.5 \text{ inches}$$

" H_f " is the final height of water at the selected time interval

$$H_f = D_T - D_f = 60 - 37.5 = 22.5 \text{ inches}$$

" ΔH " is the change in height over the time interval

$$\Delta H = \Delta D = H_0 - H_f = 27.5 - 22.5 = 5 \text{ inches}$$

" H_{avg} " is the average head height over the time interval

$$H_{avg} = (H_0 + H_f) / 2 = (27.5 + 22.5) / 2 = 25 \text{ inches}$$

" I_t " is the tested infiltration rate

$$I_t = \frac{\Delta H 60 r}{\Delta t (r + 2H_{avg})} = \frac{(5 \text{ in})(60 \text{ min/hr})(3 \text{ in})}{(10 \text{ min})(3 \text{ in} + 2 (25 \text{ in}))} = 1.7 \text{ in/hr}$$

LANDMARK
Geo-Engineers and Geologists

Project No.: LP21055

Percolation Rate Conversion

Plate
F-4

EXHIBIT F-2

Geotechnical Report

Proposed New Fire Station No. 49

Tamarisk Drive

Desert Center, California

Prepared for:

County of Riverside Project Management Office

3133 Mission Inn Avenue

Riverside, CA 92507



LANDMARK
Geo-Engineers and Geologists

Prepared by:

Landmark Consultants, Inc.

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April 2021



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April 9, 2021

Mr. Dominick Lombardi
County of Riverside - Project Management Office
3133 Mission Inn Avenue
Riverside, CA 92507

**Geotechnical Report
New Fire Station No. 49
Tamarisk Drive
Desert Center, California
LCI Report No. LP21057**

Dear Mr. Lombardi:

This geotechnical report is provided for design and construction of the proposed new fire station No. 49 located on the north side of Tamarisk Drive east of Parkview Drive in the unincorporated community of Desert Center, California. Our geotechnical exploration was conducted in response to your request for our services. The enclosed report describes our soil engineering site evaluation and presents our professional opinions regarding geotechnical conditions at the site to be considered in the design and construction of the project.

Based on the geotechnical conditions encountered at the points of exploration, the project site appears suitable for the proposed construction provided the professional opinions contained in this report are considered in the design and construction of this project.

We appreciate the opportunity to provide our findings and professional opinions regarding geotechnical conditions at the site. Please provide our office with a set of the foundation plans and civil plans for review to insure that the geotechnical site constraints have been included in the design documents. If you have any questions or comments regarding our findings, please call our office at (760) 370-3000.

Respectfully Submitted,
LandMark Consultants, Inc.


Greg M. Chandra, PE, M.ASCE
Principal Engineer




Steven K. Williams, PG, CEG
Senior Engineering Geologist




Julian R. Avalos, GE
Senior Geotechnical Engineer



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Table 2: 2016 California Building Code (CBC) and ASCE 7-10 Seismic Parameters

Table 3: Soil Site Class Determination

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Figure 1: Regional Fault Map

Figure 2: Map of Local Faults

Figure 3: Fault Map Explanation

Appendices:

Appendix A: Vicinity and Site Maps

Appendix B: Subsurface Soil Logs and Soil Key

Appendix C: Laboratory Test Results

Appendix D: Seismic Settlement Calculations

Appendix E: Pipe Bedding and Trench Backfill Recommendations

Appendix F: Summary of Infiltration Testing

EXECUTIVE SUMMARY

This executive summary presents *selected* elements of our findings and professional opinions. This summary *may not* present all details needed for the proper application of our findings and professional opinions. Our findings, professional opinions, and application options are *best related through reading the full report*, and are best evaluated with the active participation of the engineer of record who developed them. The findings of this study are summarized below:

- The findings of this study indicate the site is underlain by interbedded sands and silty sand with near surface silty sand soils. The near surface sands are expected to be non-expansive. The subsurface soils are dense to very dense in nature.
- Groundwater was not encountered in the borings at the time of exploration.
- Elevated sulfate levels were not encountered in the soil samples tested for this investigation. It is recommended that concrete should use Type II cement with a maximum water-cement ratio of 0.50 and a minimum compressive strength of 3,000 psi.
- Design soil bearing pressure of 1,800 psf. Differential movement of ½ to ¾ inch can be expected for slab on grade foundations placed on native soils.
- Evaluation of liquefaction potential at the site indicates that it is unlikely that the subsurface soil will liquefy under seismically induced ground-shaking due to the dense nature of the underlying saturated granular soils and depth to groundwater (greater than 100 ft.). No mitigation is required for liquefaction effects at this site.
- Seismic settlements of the dry sands have been calculated and are not expected to occur at the project site due to the dense nature of the subsurface soil.
- All reinforcing bars, anchor bolts and hold down bolts shall have a minimum concrete cover of 3.0 inches unless epoxy coated (ASTM D3963/A934). Hold-down straps are not allowed at the foundation perimeter. No pressurized water lines are allowed below or within the foundations.
- Pavement structural sections should be designed for subgrade soils (R-Value = 50) and an appropriate Traffic Index (TI) selected by the civil designer.

Section 1 INTRODUCTION

1.1 Project Description

This report presents the findings of our geotechnical exploration and soil testing for the proposed new fire station No. 49 located on the north side of Tamarisk Drive east of Parkview Drive in the unincorporated community of Desert Center, California (See Vicinity Map, Plate A-1). A site plan for the proposed development was provided by your office

The structure is planned to consist of slabs-on-grade foundations and steel-frame construction. Footing loads at exterior bearing walls are estimated at 2 to 5 kips per lineal foot. Column loads are estimated to range from 5 to 80 kips. If structural loads exceed those stated above, we should be notified so we may evaluate their impact on foundation settlement and bearing capacity. Site development will include building pad preparation, underground utility installation including trench backfill, concrete foundation construction, parking lot construction, and concrete driveway and sidewalk placement.

1.2 Purpose and Scope of Work

The purpose of this geotechnical study was to investigate the subsurface soil at selected locations within the site for evaluation of physical/engineering properties and liquefaction potential during seismic events. Professional opinions were developed from field and laboratory test data and are provided in this report regarding geotechnical conditions at this site and the effect on design and construction. The scope of our services consisted of the following:

- < Field exploration and in-situ testing of the site soils at selected locations and depths.
- < Laboratory testing for physical and/or chemical properties of selected samples.
- < Review of the available literature and publications pertaining to local geology, faulting, and seismicity.
- < Engineering analysis and evaluation of the data collected.
- < Preparation of this report presenting our findings and professional opinions regarding the geotechnical aspects of project design and construction.

This report addresses the following geotechnical parameters:

- < Subsurface soil and groundwater conditions
- < Site geology, regional faulting and seismicity, near source factors, and site seismic accelerations
- < Liquefaction potential and its mitigation
- < Expansive soil and methods of mitigation
- < Aggressive soil conditions to metals and concrete
- < Soil infiltration rates of the native soil for storm-water retention basin design

Professional opinions with regard to the above parameters are provided for the following:

- < Site grading and earthwork
- < Building pad and foundation subgrade preparation
- < Allowable soil bearing pressures and expected settlements
- < Concrete slabs-on-grade
- < Excavation conditions and buried utility installations
- < Mitigation of the potential effects of salt concentrations in native soil to concrete mixes and steel reinforcement
- < Seismic design parameters
- < Preliminary pavement structural sections

Our scope of work for this report did not include an evaluation of the site for the presence of environmentally hazardous materials or conditions, storm water infiltration, groundwater mounding, or landscape suitability of the soil.

1.3 Authorization

Mr. Dominick Lombardi of County of Riverside, Project Management Office provided authorization by written agreement to proceed with our work on March 11, 2021. We conducted our work in general accordance with our written proposal dated March 11, 2021.

Section 2 METHODS OF INVESTIGATION

2.1 Field Exploration

Subsurface exploration was performed on March 17, 2021 using 2R Drilling of Ontario, California to advance two (2) borings to depths of 26.5 to 51.5 feet below existing ground surface. The borings were advanced with a truck-mounted, CME 75 drill rig using 8-inch diameter, hollow-stem, continuous-flight augers. The approximate boring locations were established in the field and plotted on the site map by sighting to discernible site features. The boring locations are shown on the Site and Exploration Plan (Plate A-2).

A geo-technician observed the drilling operations and maintained logs of the soil encountered with sampling depths. Soils were classified during drilling according to the Unified Soil Classification System using the visual-manual procedure in accordance with ASTM D2488. Relatively undisturbed and bulk samples of the subsurface materials were obtained at selected intervals. The relatively undisturbed soil samples were retrieved using a 2-inch outside diameter (OD) split-spoon sampler or a 3-inch OD Modified California Split-Barrel (ring) sampler lined with 6-inch stainless-steel sleeves.

After logging and sampling the soil, the exploratory borings were backfilled with the excavated material. The backfill was loosely placed and was not compacted to the requirements specified for engineered fill. The existing asphalt surfaces were repaired with asphalt cold patch or quickset concrete with black pigment.

The subsurface logs are presented on Plates B-1 and B-2 in Appendix B. A key to the log symbols is presented on Plate B-3. The stratification lines shown on the subsurface logs represent the approximate boundaries between the various strata. However, the transition from one stratum to another may be gradual over some range of depth.

2.2 Laboratory Testing

Laboratory tests were conducted on selected bulk (auger cuttings) and relatively undisturbed soil samples obtained from the soil borings to aid in classification and evaluation of selected engineering properties of the site soils.

The tests were conducted in general conformance to the procedures of the American Society for Testing and Materials (ASTM) or other standardized methods as referenced below. The laboratory testing program consisted of the following tests:

- < Particle Size Analyses (ASTM D422)
- < Unit Dry Densities (ASTM D2937)
- < Moisture Contents (ASTM D2216)
- < Moisture-Density Relationship (ASTM D1557)
- < Chemical Analyses (soluble sulfates & chlorides, pH, and resistivity) (Caltrans Methods)

The laboratory test results are presented on the subsurface logs (Appendix B) and in Appendix C. Engineering parameters of soil strength, compressibility and relative density utilized for developing design criteria provided within this report were obtained from the field and laboratory testing program.

2.3 Soil Infiltration Testing

A total of two (2) infiltration tests were conducted on March 23, 2021 at the proposed location for the on-site storm-water retention basin as shown on the Site and Exploration Plan (Plate A-2). The infiltration tests were performed to the guideline from Design Handbook for Low Impact Development Best Management Practices, prepared by Riverside County Flood Control and Water Conservation District, Appendix A, Section 2.3, dated September 2011. The tests were performed using perforated pipes inside an 8-inch diameter flight auger borehole made to depths of approximately 5.0 feet below the existing ground surface, corresponding to the anticipated bottom depth of the stormwater retention basin. The pipes were filled with water and successive readings of drop in water levels were made every 30 minutes for a total elapsed time of 180 minutes, until a stabilization drop was recorded.

The test results indicate that the stabilized soil infiltration rate for the soil ranges from 2.5 to 4.2 inches per hour. A maximum soil infiltration rate of 2.5 inches per hour may be used for the on-site storm-water retention basin design. An oil/water separator should be installed at inlets to the stormwater retention basin to prevent sealing of the basin bottom with silt and oil residues. The field and conversion calculation worksheets are included in Appendix F. We recommend additional testing should be performed after the completion of rough grading operations, to verify the soil infiltration rate.

Section 3 DISCUSSION

3.1 Site Conditions

The project site is irregularly-shaped in plan view, is relatively flat-lying slopes gently to the northeast. The coordinates of the project site (latitude/longitude) are 33.7385N / -115.3913W. The project site is covered with scattered dry brush and weeds. The site is bounded by Tamarisk Drive to the south and vacant lots to the east and north. A fenced communications building is located to the west. Adjacent properties are flat-lying and are approximately at the same elevation with this site. The existing Lake Tamarisk Fire Station No. 49 is located southwest of the project site at the southeast corner of Tamarisk Drive and Parkview Drive.

The project site lies at an elevation of approximately 725 to 730 feet above mean sea level in the Chuckwalla Valley region of the California low desert. Annual rainfall in this arid region is less than 4 inches per year with four months of average summertime temperatures above 100 °F. Winter temperatures are mild, seldom reaching freezing.

3.2 Geologic Setting

The project site is located in the Eastern Transverse Ranges province and adjacent parts of the Mojave Desert, where highland terrains expose igneous and metamorphic crystalline basement overlain locally by Tertiary cover strata, and intervening basins are filled with Pliocene and Quaternary sedimentary deposits. Basement consists of Proterozoic and Mesozoic plutonic and metamorphic rocks. The Eastern Transverse Ranges block is characterized by left-oblique, east-striking faults that extend east from the Little San Bernardino Mountains. The project site is located in the western portion of the Chuckwalla Valley of the southern Mojave Desert region of southern California. The project site lies on a broad Holocene alluvial fan (bajada) that slopes gently to the northeast toward Palen Lake, a dry lake bed. The Chuckwalla Valley is bounded on the southwest by the Chuckwalla Mountains and the northeast by the McCoy Mountains. The adjacent mountains to the north and east are composed of Precambrian through Mesozoic age gneiss, schist, and granitic rocks overlain by Tertiary through Quaternary age volcanic and nonmarine sedimentary rocks. Figure 1 shows the location of the site in relation to regional faults and physiographic features.

3.3 Site Subsurface Conditions

Subsurface soils encountered during the field exploration conducted in March 2021 consist of dominantly dense to very dense, interbedded sands (SP), sands (SP-SM) and silty sands (SM) to a depth of 51.5 feet, the maximum depth of exploration.

Groundwater was not encountered to a depth of 50 feet below ground surface at the project site during the field exploration.

Groundwater records in the vicinity of the project site indicate that historic groundwater levels fluctuated between 67 and 122 feet below the ground surface between 1961 and 1985 according to the Department of Water Resources.

3.4 Seismic Hazards

3.4.1 Faulting and Seismicity

The project site is located in the seismically active southern California region and is expected to be subjected to moderate to strong ground shaking during the design life of the project. A fault map illustrating known active faults relative to the site is presented on Figure 1, *Regional Fault Map*. Figure 2 shows the project site in relation to local faults.

The criterion for fault classification adopted by the California Geological Survey defines Earthquake Fault Zones along Holocene-active or pre-Holocene faults (CGS, 2018b). Earthquake Fault Zones are regulatory zones that address the hazard of surface fault rupture. A Holocene-active fault is one that has ruptured during Holocene time (within the last 11,700 years). A pre-Holocene fault is a fault that has not ruptured in the last 11,700 years. Pre-Holocene faults may still be capable of surface rupture in the future, but are not regulated by the A-P act. Table 1 lists known faults or seismic zones that lie within a 38 mile (60 kilometer) radius of the project site.

The site is not located within a currently designated Earthquake Fault-Rupture Hazard Zone (CGS, 2018b). *Review of the current Alquist-Priolo Earthquake Fault Zone maps (CGS, 2018a) indicates that the nearest mapped Earthquake Fault Zone is the San Andreas fault, located approximately 32.2 miles west of the site.*

The possibility of ground surface rupture related to active faulting on currently unrecognized faults exists throughout the seismically active Coachella Valley region. However, given the current state of knowledge regarding seismicity of the Coachella Valley, the potential for fault rupture at the project site is considered low.

3.4.2 Historic Seismicity

The Coachella Valley is one of the most seismically active regions in the United States and has experienced several historical events of magnitude 5.9 or greater. The following briefly outlines seismic events that have significantly affected the Coachella Valley in the past 60 years.

- < ***Desert Hot Springs Event*** - On December 4, 1948, a magnitude 6.5M_w earthquake occurred east of Desert Hot Springs (Proctor, 1968).
- < ***Palm Springs Event*** - A magnitude 6.2M_w earthquake occurred on July 8, 1986 in the Painted Hills causing minor surface creep of the Banning segment of the San Andreas Fault (USGS, 1987).
- < ***Joshua Tree Event*** - On April 22, 1992, a magnitude 6.1 M_w earthquake occurred in the mountains 9 miles east of Desert Hot Springs (OSMS, 1992). Some structural damage and minor injuries occurred in the Palm Springs area during this earthquake.
- < ***Landers Event*** - Early on June 28, 1992, the Coachella Valley was subjected to the largest seismic event to strike Southern California in 40 years. The Landers earthquake had a main shock with a 7.3M_w magnitude. Surface rupture occurred just south of the town of Yucca Valley and extended some 43 miles north toward Barstow. Surface horizontal offsets attained a maximum of 21 feet (OSMS, 1992).
- < ***Big Bear Event*** - Approximately three hours after the Landers Event on June 28, 1992, a magnitude 6.4M_w earthquake occurred 10 miles southeast of Big Bear Lake. The earthquake occurred on a previously unknown fault trending northeast from the San Andreas Fault in the San Bernardino Mountains (OSMS, 1992).
- < ***Hector Mine Event*** – On October 16, 1999, a magnitude 7.1 M_w earthquake occurred on the Lavic Lake and Bullion Mountain Faults north of Twentynine Palms.

3.5 General Ground Motion Analysis

The project site is considered likely to be subjected to moderate to strong ground motion from earthquakes in the region. Ground motions are dependent primarily on the earthquake magnitude and distance to the seismogenic (rupture) zone. Acceleration magnitudes also are dependent upon attenuation by rock and soil deposits, direction of rupture and type of fault; therefore, ground motions may vary considerably in the same general area.

2019 CBC General Ground Motion Parameters: The California Building Code (CBC) requires that a site-specific ground motion hazard analysis be performed in accordance with ASCE 7-16 Section 11.4.8 for structures on Site Class D and E sites with S_1 greater than or equal to 0.2 and Site Class E sites with S_s greater than or equal to 1.0. **This project site has been classified as Site Class C, which would not require a site-specific ground motion hazard analysis.**

The 2019 CBC general ground motion parameters are based on the Risk-Targeted Maximum Considered Earthquake (MCE_R). The Structural Engineers Association of California (SEAOC) and Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps Web Application (SEAOC, 2021) was used to obtain the site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters.

Design spectral response acceleration parameters are defined as the earthquake ground motions that are two-thirds (2/3) of the corresponding MCE_R ground motions. The Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for soil site class effects (PG_{AM}) value to be used for liquefaction and seismic settlement analysis in accordance with 2019 CBC Section 1803.5.12 ($PG_{AM} = F_{PGA} * PGA$) is estimated at 0.36g for the project site. **Design earthquake ground motion parameters are provided in Table 2.**

3.6 Seismic and Other Hazards

< **Groundshaking.** The primary seismic hazard at the project site is the potential for strong groundshaking during earthquakes along the San Andreas fault. A further discussion of groundshaking is provided in Section 3.5.

- < **Surface Rupture.** The project site does not lie within a State of California, Alquist-Priolo Earthquake Fault Zone. Surface fault rupture is considered to be unlikely at the project site because of the well-delineated fault lines through the Chuckwalla Valley as shown on USGS, CDMG, and County of Riverside maps. However, because of the high tectonic activity and deep alluvium of the region, we cannot preclude the potential for surface rupture on undiscovered or new faults that may underlie the site.
- < **Liquefaction and lateral spreading.** Liquefaction is unlikely to be a potential hazard at the site due to very dense soil conditions and depth to groundwater. The project site lies in a Riverside County designated zone of moderate potential for liquefaction (See Riverside County Geographic Information System (GIS) – Liquefaction Zones, Plate A-7). The potential for liquefaction induced settlement occurring at the project site during a strong seismic event is discussed in Section 3.8.

Other Potential Geologic Hazards.

- < **Landsliding.** The hazard of landsliding is unlikely due to the regional planar topography. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indications of landslides were observed during our site investigation.
- < **Volcanic hazards.** The site is not located proximal to any known volcanically active area and the risk of volcanic hazards is considered low. Obsidian Butte and Red Hill, located at the south end of the Salton Sea approximately 38 miles southwest of the project site, are small remnants of volcanic domes. The domes erupted about 1,800 to 2,500 years ago (Wright et al, 2015). The subsurface brine fluids around the domes have a high heat flow and are currently being utilized to produce geothermal energy.
- < **Tsunamis and seiches.** Tsunamis are giant ocean waves created by strong underwater seismic events, asteroid impact, or large landslides. Seiches are large waves generated in enclosed bodies of water in response to strong ground shaking. The site is not located near any large bodies of water, so the threat of tsunami, seiches, or other seismically-induced flooding is considered unlikely
- < **Flooding.** The site does not lie near any large bodies of water, so the threat of seismically-induced flooding is unlikely. The project site is located within Riverside County Special Flood Hazard Area (SFHA) Zone D as shown on Plate A-9.

- < **Collapsible soils.** Collapsible soil generally consists of dry, loose, low-density material that have the potential collapse and compact (decrease in volume) when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits. Due to the dense nature of the subsurface soils, the potential for hydro-collapse of the subsurface soils at this project site is considered very low.
- < **Expansive soils.** The near surface soils at the project site consist of sandy silts, silty sands and sands which are non-expansive.

3.8 Liquefaction

Liquefaction occurs when granular soil below the water table is subjected to vibratory motions, such as produced by earthquakes. With strong ground shaking, an increase in pore water pressure develops as the soil tends to reduce in volume. If the increase in pore water pressure is sufficient to reduce the vertical effective stress (suspending the soil particles in water), the soil strength decreases and the soil behaves as a liquid (similar to quicksand). Liquefaction can produce excessive settlement, ground rupture, lateral spreading, or failure of shallow bearing foundations. Four conditions are generally required for liquefaction to occur:

- (1) the soil must be saturated (relatively shallow groundwater);
- (2) the soil must be loosely packed (low to medium relative density);
- (3) the soil must be relatively cohesionless (not clayey); and
- (4) groundshaking of sufficient intensity must occur to function as a trigger mechanism.

Liquefaction Induced Settlements: *Based on dense nature of the subsurface granular soil and lack of groundwater in the upper 50 feet, liquefaction is not expected to occur at the project site.*

Mitigation: Liquefaction is not expected to occur at the project site; therefore, mitigation for liquefaction is not required at the site.

3.9 Seismic Settlement

An evaluation of the non-liquefaction seismic settlement potential was performed using the relationships developed by Tokimatsu and Seed (1984, 1987) for dry sands. This method is an empirical approach to quantify seismic settlement using SPT blow counts and PGA estimates from the probabilistic seismic hazard analysis. The soils beneath the site consist primarily of dense to very dense silty sands and sands which are not expected to experience seismic settlement during strong seismic events. A computer printout of the seismic settlement analysis is provided in Appendix D.

3.10 Hydro-consolidation

In arid climatic regions, granular soils have a potential to collapse upon wetting. This collapse (hydroconsolidation) phenomena is the result of the lubrication of soluble cements (carbonates) in the soil matrix causing the soil to densify from its loose configuration during deposition. Based on our experience in the vicinity of the project site and the site soils are dense to very dense in nature, there is a slight risk of collapse upon inundation from the site. Therefore, development of building foundation is not required to include provisions for mitigating the hydroconsolidation caused by soil saturation from landscape irrigation or broken utility lines.

3.11 Regional Subsidence

The project site is located in Riverside County designated area susceptible to subsidence (Plate A-8). The risk of regional subsidence at the project site is considered low.

Section 4

DESIGN CRITERIA**4.1 Site Preparation**

Pre-grade Meeting: Prior to site preparation, a meeting should be held at the site with as a minimum, the owner's representative, grading contractor and geotechnical engineer in attendance.

Clearing and Grubbing: All surface improvements, debris and/or vegetation including grass, bushes, and weeds on the site at the time of construction should be removed from the construction area. Root balls should be completely excavated. Organic stripping should be hauled from the site and not used as fill. *Any trash, construction debris, concrete slabs, old pavement, landfill, and buried obstructions such as old foundations and utility lines exposed during rough grading should be traced to the limits of the foreign materials and removed. [Abandoned pipes should be traced and removed or filled with concrete.* Any excavations resulting from site clearing and grubbing should be dish-shaped to the lowest depth of disturbance and backfilled with engineered fill.

Mass Grading: Prior to placing any fills, the surface 12 inches of soil should be removed, the exposed surface uniformly moisture conditioned to a depth of 8 inches by discing and wetting to at least 2% over optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density. Native soils may be used for mass grading, placed in 6 to 8 inches maximum lifts, uniformly moisture conditioned to a depth of 8 inches by discing and wetting to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

Building Pad Preparation for Foundations: The existing surface soil within the building pad area(s) should be removed to 18 inches below the lowest foundation grade or 36 inches below the original grade (whichever is deeper), extending five feet beyond all exterior wall/column lines (including adjacent concreted areas). The exposed sub-grade should be scarified to a depth of 6 to 8 inches, uniformly moisture conditioned to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

Auxiliary Structures Foundation Preparation: Auxiliary structures such as free standing or retaining walls should have footings extended to a minimum of 18 inches below grade. The existing soil beneath the structure foundation prepared in the manner described for the building pad except the preparation needs only to extend 18 inches below and beyond the footing.

Street and Parking Lot Subgrade Preparation: The native soils in street areas should be removed and recompacted to 12 inches below the design subgrade elevation. Engineered fill in street areas should be uniformly moisture conditioned to within 2% of optimum moisture, placed in layers not more than 6 to 8 inches in thickness and mechanically compacted to a minimum of 90% of the ASTM D1557 maximum dry density.

Sidewalk and Concrete Hardscape Areas: In areas other than the building pad which are to receive concrete slabs, the ground surface should be over-excavated to a depth of 12 inches, uniformly moisture conditioned to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

The on-site soils are suitable for use as compacted fill and utility trench backfill. Imported fill soil (if required) should be similar to onsite soil or non-expansive, granular soil meeting the USCS classifications of SM, SP-SM, or SW-SM with a maximum rock size of 6 inches and no less than 5% passing the No. 200 sieve. *The geotechnical engineer should approve imported fill soil sources before hauling material to the site.* Native and imported materials should be placed in lifts no greater than 8 inches in loose thickness, uniformly moisture conditioned to within 2% of optimum moisture, and re-compacted to at least 90% of ASTM D1557 maximum density.

Moisture Control and Drainage: The moisture condition of the building pad should be maintained during trenching and utility installation until concrete is placed or should be rewetted before initiating delayed construction. If soil drying is noted, a 2 to 3 inches depth of water may be used in the bottom of footings to restore footing subgrade moisture and reduce potential edge lift.

Adequate site drainage is essential to future performance of the project. Infiltration of excess irrigation water and stormwaters can adversely affect the performance of the subsurface soil at the site. Positive drainage should be maintained away from all structures (5% for 5 feet minimum across unpaved areas) to prevent ponding and subsequent saturation of the native soil. Gutters and downspouts may be considered as a means to convey water away from foundations.

Observation and Density Testing: All site preparation and fill placement should be continuously observed and tested by a representative of a qualified geotechnical engineering firm. Full-time observation services during the excavation and scarification process is necessary to detect undesirable materials or conditions and soft areas that may be encountered in the construction area. The geotechnical firm that provides observation and testing during construction shall assume the responsibility of "*geotechnical engineer of record*" and, as such, shall perform additional tests and investigation as necessary to satisfy themselves as to the site conditions and the geotechnical parameters for site development.

4.2 Utility Trench Backfill

On-site soil free of debris, vegetation, and other deleterious matter may be suitable for use as utility trench backfill. Backfill within roadway should, at a minimum, conform to County of Riverside Standard No. 818 – Utility Trench Backfill (Plate E-1 – Appendix E).

Backfill within roadways should be placed in layers not more than 6 to 8 inches in thickness, uniformly moisture conditioned to within 2% of optimum moisture and mechanically compacted to a minimum of 90% of the ASTM D1557 maximum dry density except for the top 12 inches of the trench which shall be compacted to at least 95%. Native backfill should only be placed and compacted after encapsulating buried pipes with suitable bedding and pipe envelope material.

Pipe envelope/bedding should either be clean sand (Sand Equivalent $SE > 30$). Precautions should be taken in the compaction of the backfill to avoid damage to the pipes and structures.

4.3 Foundations and Settlements

Shallow column footings and continuous wall footings are suitable to support the structures provided they are founded on a layer of properly prepared and compacted soil as described in Section 4.1. The foundations may be designed using an allowable soil bearing pressure of 1,800 psf. The allowable soil pressure may be increased by 20% for each foot of embedment depth in excess of 18 inches and by one-third for short term loads induced by winds or seismic events. The maximum allowable soil pressure at increased embedment depths shall not exceed 2,200 psf.

All exterior and interior foundations should be embedded a minimum of 18 inches below the building support pad or lowest adjacent final grade, whichever is deeper. Continuous wall footings should have a minimum width of 12 inches. Isolated column footings should have a minimum width of 24 inches. *Recommended concrete reinforcement and sizing for all footings should be provided by the structural engineer.*

Resistance to horizontal loads will be developed by passive earth pressure on the sides of footings and frictional resistance developed along the bases of footings and concrete slabs. Passive resistance to lateral earth pressure may be calculated using an equivalent fluid pressure of 300 pcf to resist lateral loadings. The top one foot of embedment should not be considered in computing passive resistance unless the adjacent area is confined by a slab or pavement. An allowable friction coefficient of 0.35 may also be used at the base of the footings to resist lateral loading.

Foundation movement under the estimated static loadings and seismic site conditions are estimated to not exceed $\frac{3}{4}$ inch with differential movement of about two-thirds of total movement for the loading assumptions stated above when the subgrade preparation guidelines given above are followed. Foundation movements under the seismic loading due to liquefaction and/or dry settlement, and collapse potential are provided in Section 3.9 and 3.10 of this report.

4.4 Slabs-On-Grade

Concrete slabs and flatwork should be a minimum of 5 inches thick. Concrete floor slabs may either be monolithically placed with the foundation or dowelled after footing placement. The concrete slabs may be placed on granular subgrade that has been compacted at least 90% relative compaction (ASTM D1557).

American Concrete Institute (ACI) guidelines (ACI 302.1R-04 Chapter 3, Section 3.2.3) provide recommendations regarding the use of moisture barriers beneath concrete slabs. The concrete floor slabs should be underlain by a 10-mil polyethylene vapor retarder that works as a capillary break to reduce moisture migration into the slab section. All laps and seams should be overlapped 6-inches or as recommended by the manufacturer. The vapor retarder should be protected from puncture. The joints and penetrations should be sealed with the manufacturer's recommended adhesive, pressure-sensitive tape, or both. The vapor retarder should extend a minimum of 12

inches into the footing excavations. The vapor retarder may lie directly on the compacted granular subgrade with 2 inches of clean sand cover.

Placing sand over the vapor retarder may increase moisture transmission through the slab, because it provides a reservoir for bleed water from the concrete to collect. The sand placed over the vapor retarder may also move and mound prior to concrete placement, resulting in an irregular slab thickness. For areas with moisture sensitive flooring materials, ACI recommends that concrete slabs be placed without a sand cover directly over the vapor retarder, provided that the concrete mix uses a low-water cement ratio and concrete curing methods are employed to compensate for release of bleed water through the top of the slab. The vapor retarder should have a minimum thickness of 15-mil (Stego-Wrap or equivalent).

Concrete slab and flatwork reinforcement should consist of chaired rebar slab reinforcement (minimum of No. 4 bars at 18-inch centers, both horizontal directions) placed at slab mid-height to resist potential swell forces and cracking. *Slab thickness and steel reinforcement are minimums only and should be verified by the structural engineer/designer knowing the actual project loadings.* The construction joint between the foundation and any mowstrips/sidewalks placed adjacent to foundations should be sealed with a polyurethane based non-hardening sealant to prevent moisture migration between the joint.

Control joints should be provided in all concrete slabs-on-grade at a maximum spacing (in feet) of 2 to 3 times the slab thickness (in inches) as recommended by American Concrete Institute (ACI) guidelines. All joints should form approximately square patterns to reduce randomly oriented contraction cracks. Contraction joints in the slabs should be tooled at the time of the pour or sawcut ($\frac{1}{4}$ of slab depth) within 6 to 8 hours of concrete placement. Construction (cold) joints in foundations and area flatwork should either be thickened butt-joints with dowels or a thickened keyed-joint designed to resist vertical deflection at the joint. All joints in flatwork should be sealed to prevent moisture, vermin, or foreign material intrusion. Precautions should be taken to prevent curling of slabs in this arid desert region (refer to ACI guidelines).

4.5 Concrete Mixes and Corrosivity

Selected chemical analyses for corrosivity were conducted on bulk samples of the near surface soil from the project site (Plate C-2). The native soils were found to have low (S0) levels of sulfate ion concentration (257 ppm). Sulfate ions in high concentrations can attack the cementitious material in concrete, causing weakening of the cement matrix and eventual deterioration by raveling. The following table provides American Concrete Institute (ACI) recommended cement types, water-cement ratio and minimum compressive strengths for concrete in contact with soils:

Table 4. Concrete Mix Design Criteria due to Soluble Sulfate Exposure

Sulfate Exposure Class	Water-soluble Sulfate (SO ₄) in soil, ppm	Cement Type	Maximum Water-Cement Ratio by weight	Minimum Strength f _c (psi)
S0	0-1,000	–	–	–
S1	1,000-2,000	II	0.50	4,000
S2	2,000-20,000	V	0.45	4,500
S3	Over 20,000	V (plus Pozzolon)	0.45	4,500

Note: From ACI 318-14 Table 19.3.1.1 and Table 19.3.2.1

A minimum of 3,000 psi concrete of Type II Portland Cement with a maximum water-cement ratio of 0.50 (by weight) should be placed in contact with native soil on this project (sitework including streets, flatwork, sidewalks, driveways, patios, and foundations).

A minimum concrete cover of three (3) inches is recommended around steel reinforcing or embedded components (anchor bolts, hold-downs, etc.) exposed to native soil or landscape water (to 18 inches above grade). The concrete should also be thoroughly vibrated during placement. Admixtures may be required to allow placement of this low water/cement ratio concrete. Thorough concrete consolidation and hard trowel finishes should be used due to the aggressive soil exposure.

The native soil has low levels of chloride ion concentration (100 ppm). Chloride ions can cause corrosion of reinforcing steel, anchor bolts and other buried metallic conduits. Resistivity determinations on the soil indicate very potential for metal loss because of electrochemical corrosion processes. Mitigation of the corrosion of steel can be achieved by using steel pipes coated with epoxy corrosion inhibitors, asphaltic and epoxy coatings, cathodic protection or by encapsulating the portion of the pipe lying above groundwater with a minimum of 3 inches of densely consolidated concrete. *No metallic water pipes or conduits should be placed below foundations.*

Foundation designs shall provide a minimum concrete cover of three (3) inches around steel reinforcing or embedded components (anchor bolts, etc.) exposed to native soil or landscape water (to 18 inches above grade). If the 3-inch concrete edge distance cannot be achieved, all embedded steel components (anchor bolts, etc.) shall be epoxy coated for corrosion protection (in accordance with ASTM D3963/A934) or a corrosion inhibitor and a permanent waterproofing membrane shall be placed along the exterior face of the exterior footings. *Hold-down straps should not be used at foundation edges due to corrosion of metal at its protrusion from the slab edge.* Additionally, the concrete should be thoroughly vibrated at footings during placement to decrease the permeability of the concrete.

Copper water piping (except for trap primers) should not be placed under floor slabs. All copper piping within 18 inches of ground surface shall be wrapped with two layers of 10 mil plumbers tape or sleeved with PVC piping to prevent contact with soil. The trap primer pipe shall be completely encapsulated in a PVC sleeve and Type K copper should be utilized if polyethylene tubing cannot be used. Pressurized waterlines are not allowed under the floor slab. Fire protection piping (risers) should be placed outside of the building foundation.

Landmark does not practice corrosion engineering. We recommend that a qualified corrosion engineer evaluate the corrosion potential on metal construction materials and concrete at the site to obtain final design recommendations.

4.6 Excavations

All site excavations should conform to CalOSHA requirements for Type C soil. The contractor is solely responsible for the safety of workers entering trenches. Temporary excavations with depths of 4 feet or less may be cut nearly vertical for short duration. Excavations deeper than 4 feet will require shoring or slope inclinations in conformance to CAL/OSHA regulations for Type C soil. Surcharge loads of stockpiled soil or construction materials should be set back from the top of the slope a minimum distance equal to the height of the slope. All permanent slopes should not be steeper than 3:1 to reduce wind and rain erosion. Protected slopes with ground cover may be as steep as 2:1. However, maintenance with motorized equipment may not be possible at this inclination.

4.7 Seismic Design

This site is located in the seismically active southern California area and the site structures are subject to strong ground shaking due to potential fault movements along the San Andreas fault. Engineered design and earthquake-resistant construction are the common solutions to increase safety and development of seismic areas. Designs should comply with the latest edition of the CBC for Site Class C using the seismic coefficients given in Section 3.6 and Table 2 of this report.

4.8 Pavements

Pavements should be designed according to the 2020 Caltrans Highway Design Manual or other acceptable methods. Traffic indices were not provided by the project engineer or owner; therefore, we have provided structural sections for several traffic indices for comparative evaluation. The public agency or design engineer should decide the appropriate traffic index for the site. Maintenance of proper drainage is necessary to prolong the service life of the pavements.

Based on the current Caltrans method, an estimated R-value of 50 for the subgrade soil and assumed traffic indices, the following table provides our estimates for asphaltic concrete (AC) and Portland Cement Concrete (PCC) pavement sections.

PAVEMENT STRUCTURAL SECTIONS

R-Value of Subgrade Soil - 50 (estimated)

Design Method - CALTRANS 2020

Traffic Index (assumed)	Flexible Pavements		Rigid (PCC) Pavements	
	Asphaltic Concrete Thickness (in.)	Aggregate Base Thickness (in.)	Concrete Thickness (in.)	Aggregate Base Thickness (in.)
5.0	3.0	4.0	6.0	4.0
6.0	3.5	4.0	6.0	6.0
7.0	4.5	4.0	6.0	8.0
8.0	5.0	5.5	8.0	8.0

Notes:

- 1) Asphaltic concrete shall be Caltrans, Type B, ¾ inch maximum medium grading, (½ inch for parking areas) medium grading with PG70-10 asphalt concrete, compacted to a minimum of 95% of the 50-blow Marshall density (ASTM D1559).
- 2) Aggregate base shall conform to Caltrans Class 2 (¾ in. maximum), compacted to a minimum of 95% of ASTM D1557 maximum dry density.
- 3) Place pavements on 12 inches of moisture conditioned (at least 2% of over optimum) native soil compacted to a minimum of 95% of the maximum dry density determined by ASTM D1557, or the governing agency requirements.
- 4) Portland cement concrete for pavements should have Type V cement, a minimum compressive strength of 4,500 psi at 28 days, and a maximum water-cement ratio of 0.45.

Final pavement sections may need to be determined by sampling and R-Value testing during grading operations when actual subgrade soils are exposed.

Section 5

LIMITATIONS AND ADDITIONAL SERVICES**5.1 Limitations**

The findings and professional opinions within this report are based on current information regarding the proposed new fire station No. 49 located on the north side of Tamarisk Drive east of Parkview Drive in the unincorporated community of Desert Center, California. The conclusions and professional opinions of this report are invalid if:

- < Structural loads change from those stated or the structures are relocated.
- < The Additional Services section of this report is not followed.
- < This report is used for adjacent or other property.
- < Changes of grade or groundwater occur between the issuance of this report and construction other than those anticipated in this report.
- < Any other change that materially alters the project from that proposed at the time this report was prepared.

This report was prepared according to the generally accepted *geotechnical engineering standards of practice* that existed in Riverside County at the time the report was prepared. No express or implied warranties are made in connection with our services.

Findings and professional opinions in this report are based on selected points of field exploration, geologic literature, limited laboratory testing, and our understanding of the proposed project. Our analysis of data and professional opinions presented herein are based on the assumption that soil conditions do not vary significantly from those found at specific exploratory locations. Variations in soil conditions can exist between and beyond the exploration points or groundwater elevations may change. The nature and extend of such variations may not become evident until, during or after construction. If variations are detected, we should immediately be notified as these conditions may require additional studies, consultation, and possible design revisions.

Environmental or hazardous materials evaluations were not performed by *LandMark Consultants, Inc.* for this project. *LandMark Consultants, Inc.* will assume no responsibility or liability whatsoever for any claim, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

The client has responsibility to see that all parties to the project including designer, contractor, and subcontractor are made aware of this entire report within a reasonable time from its issuance. This report should be considered invalid for periods after two years from the date of report issuance without a review of the validity of the findings and professional opinions by our firm, because of potential changes in the Geotechnical Engineering Standards of Practice.

This report is based upon government regulations in effect at the time of preparation of this report. Future changes or modifications to these regulations may require modification of this report. Land or facility use, on and off-site conditions, regulations, design criteria, procedures, or other factors may change over time, which may require additional work. Any party other than the client who wishes to use this report shall notify *LandMark Consultants, Inc.* of such intended use. Based on the intended use of the report, *LandMark Consultants, Inc.* may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release *LandMark Consultants, Inc.* from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold *LandMark Consultants, Inc.* harmless from any claim or liability associated with such unauthorized use or non-compliance.

This report contains information that may be useful in the preparation of contract specifications. However, the report is not worded in such a manner that we recommend its use as a construction specification document without proper modification. The use of information contained in this report for bidding purposes should be done at the contractor's option and risk.

5.2 Plan Review

Landmark Consultants, Inc. should be retained during development of design and construction documents to check that the geotechnical professional opinions are appropriate for the proposed project and that the geotechnical professional opinions are properly interpreted and incorporated into the documents. *Landmark Consultants, Inc.* should have the opportunity to review the final design plans and specifications for the project prior to the issuance of such for bidding.

Governmental agencies may require review of the plans by the geotechnical engineer of record for compliance to the geotechnical report.

5.3 Additional Services

We recommend that *Landmark Consultants, Inc.* be retained to provide the tests and observations services during construction. *The geotechnical engineering firm providing such tests and observations shall become the geotechnical engineer of record and assume responsibility for the project.*

Landmark Consultants, Inc. recommendations for this site are, to a high degree, dependent upon appropriate quality control of subgrade preparation, fill placement, and foundation construction. Accordingly, the findings and professional opinions in this report are made contingent upon the opportunity for Landmark Consultants, Inc. to observe grading operations and foundation excavations for the proposed construction.

If parties other than Landmark Consultants, Inc. are engaged to provide observation and testing services during construction, such parties must be notified that they will be required to assume complete responsibility as the geotechnical engineer of record for the geotechnical phase of the project by concurring with the recommendations in this report and/or by providing alternative recommendations.

Additional information concerning the scope and cost of these services can be obtained from our office.

Section 6

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TABLES

Table 1
Summary of Characteristics of Closest Known Active Faults

Fault Name	Approximate Distance (miles)	Approximate Distance (km)	Maximum Moment Magnitude (Mw)	Fault Length (km)	Slip Rate (mm/yr)
Hot Springs *	27.5	44.1			
San Andreas - Coachella	32.2	51.6	7.2	96 ± 10	25 ± 5
Blue Cut *	34.5	55.2			
Elmore Ranch	38.4	61.4	6.6	29 ± 3	1 ± 0.5
Pisgah Mtn. - Mesquite Lake	38.6	61.7	7.3	89 ± 9	0.6 ± 0.4
Pinto Mtn.	41.9	67.1	7.2	74 ± 7	2.5 ± 2
Indio Hills *	43.7	69.9			
San Andreas - San Bernardino (South)	48.6	77.7	7.4	103 ± 10	30 ± 7
San Andreas - San Bernardino (North)	48.6	77.7	7.5	103 ± 10	24 ± 6
San Jacinto - Anza	53.4	85.4	7.2	91 ± 9	12 ± 6
Brawley *	54.8	87.7			
Eureka Peak	55.4	88.7	6.4	19 ± 2	0.6 ± 0.4
Imperial	55.7	89.1	7	62 ± 6	20 ± 5
Superstition Hills	56.1	89.8	6.6	23 ± 2	4 ± 2
San Jacinto - Borrego	58.4	93.5	6.6	29 ± 3	4 ± 2
San Jacinto - Coyote Creek	60.1	96.1	6.8	41 ± 4	4 ± 2
Superstition Mountain	60.3	96.4	6.6	24 ± 2	5 ± 3
Garnet Hill *	61.7	98.7			
Burnt Mtn.	62.6	100.2	6.5	21 ± 2	0.6 ± 0.4
Rico *	63.8	102.1			
S. Emerson - Copper Mtn.	63.9	102.3	7	54 ± 5	0.6 ± 0.4
Morongo *	64.6	103.4			

* Note: Faults not included in CGS database.

Table 2
2019 California Building Code (CBC) and ASCE 7-16 Seismic Parameters

Soil Site Class:	C	<u>ASCE 7-16 Reference</u>
Latitude:	33.7385 N	Table 20.3-1
Longitude:	-115.3913 W	
Risk Category:	IV	
Seismic Design Category:	D	

Maximum Considered Earthquake (MCE) Ground Motion

Mapped MCE _R Short Period Spectral Response	S _s	0.685 g	ASCE Figure 22-1
Mapped MCE _R 1 second Spectral Response	S ₁	0.272 g	ASCE Figure 22-2
Short Period (0.2 s) Site Coefficient	F _a	1.23	ASCE Table 11.4-1
Long Period (1.0 s) Site Coefficient	F _v	1.50	ASCE Table 11.4-2
MCE _R Spectral Response Acceleration Parameter (0.2 s)	S _{MS}	0.841 g	= F _a * S _s ASCE Equation 11.4-1
MCE _R Spectral Response Acceleration Parameter (1.0 s)	S _{M1}	0.408 g	= F _v * S ₁ ASCE Equation 11.4-2

Design Earthquake Ground Motion

Design Spectral Response Acceleration Parameter (0.2 s)	S _{DS}	0.561 g	= 2/3 * S _{MS}	ASCE Equation 11.4-3
Design Spectral Response Acceleration Parameter (1.0 s)	S _{DI}	0.272 g	= 2/3 * S _{M1}	ASCE Equation 11.4-4
Risk Coefficient at Short Periods (less than 0.2 s)	C _{RS}	0.931		ASCE Figure 22-17
Risk Coefficient at Long Periods (greater than 1.0 s)	C _{RI}	0.924		ASCE Figure 22-18
	T _L	8.00 sec		ASCE Figure 22-12
	T _O	0.10 sec	= 0.2 * S _{DI} / S _{DS}	
	T _S	0.49 sec	= S _{DI} / S _{DS}	
Peak Ground Acceleration	PGA _M	0.36 g		ASCE Equation 11.8-1

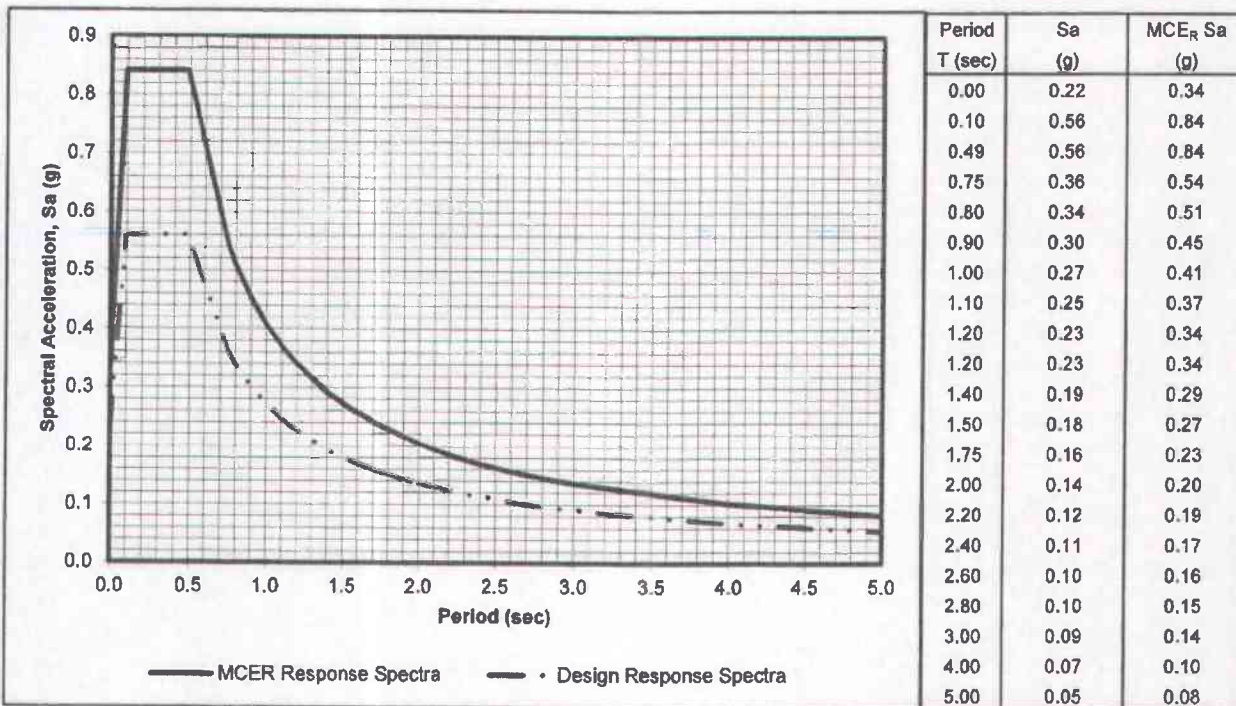


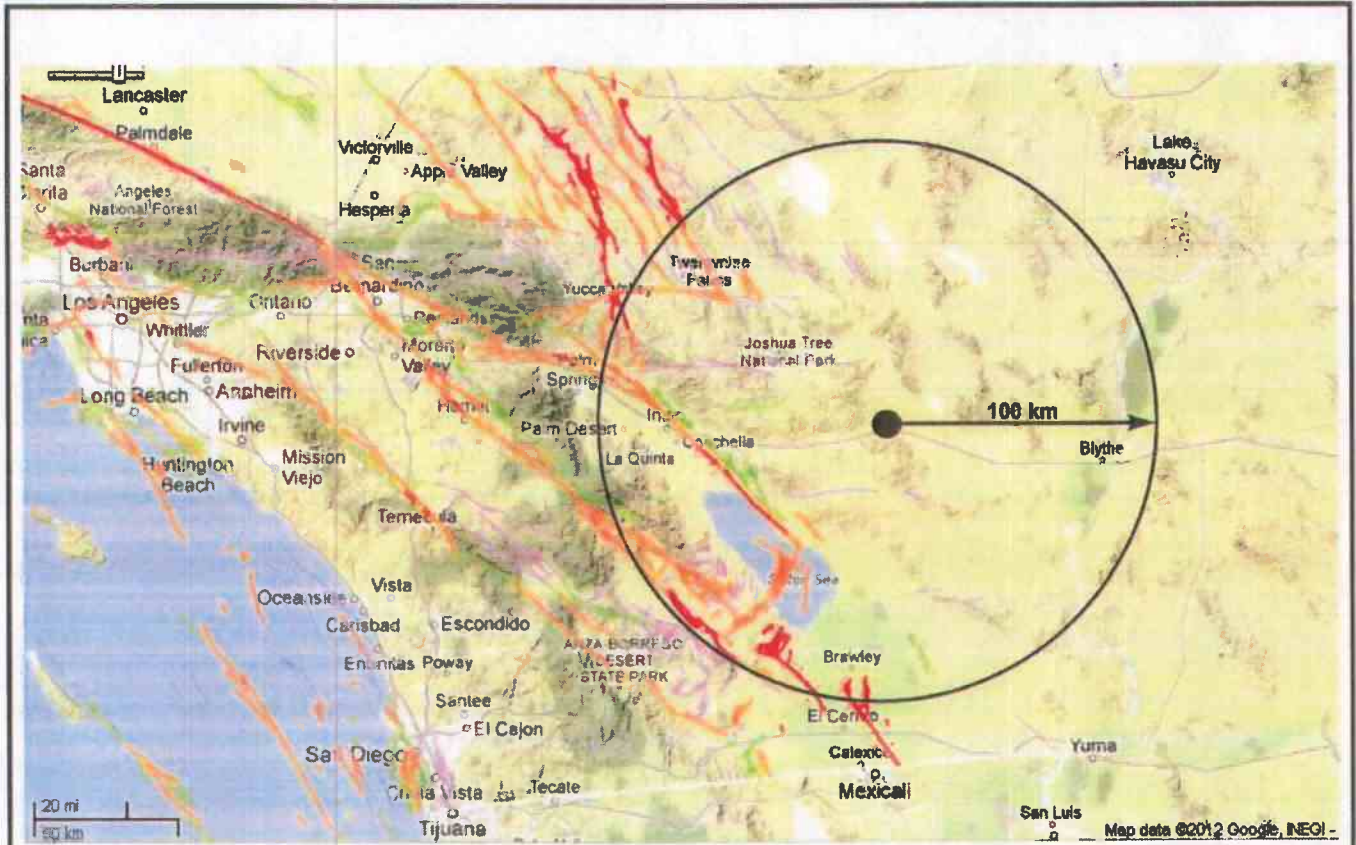
Table 3
Soil Site Class Determination per ASCE 7-16, Section 20.4
Fire Station 49 - Desert Center, CA
LCI Project No. LP21057

Boring B-1

Sample Depth	SPT Blow Count	di/Ni	Sum di/Ni	Avg. Nch
0				
2.5	45	0.06	0.95	53
5	47	0.05		
7.5	48	0.05		
10	100	0.03		
15	53	0.09		
20	51	0.10		
25	65	0.08		
30	51	0.10		
35	47	0.11		
40	54	0.09		
45	49	0.10		
50	53	0.09		

FIGURES



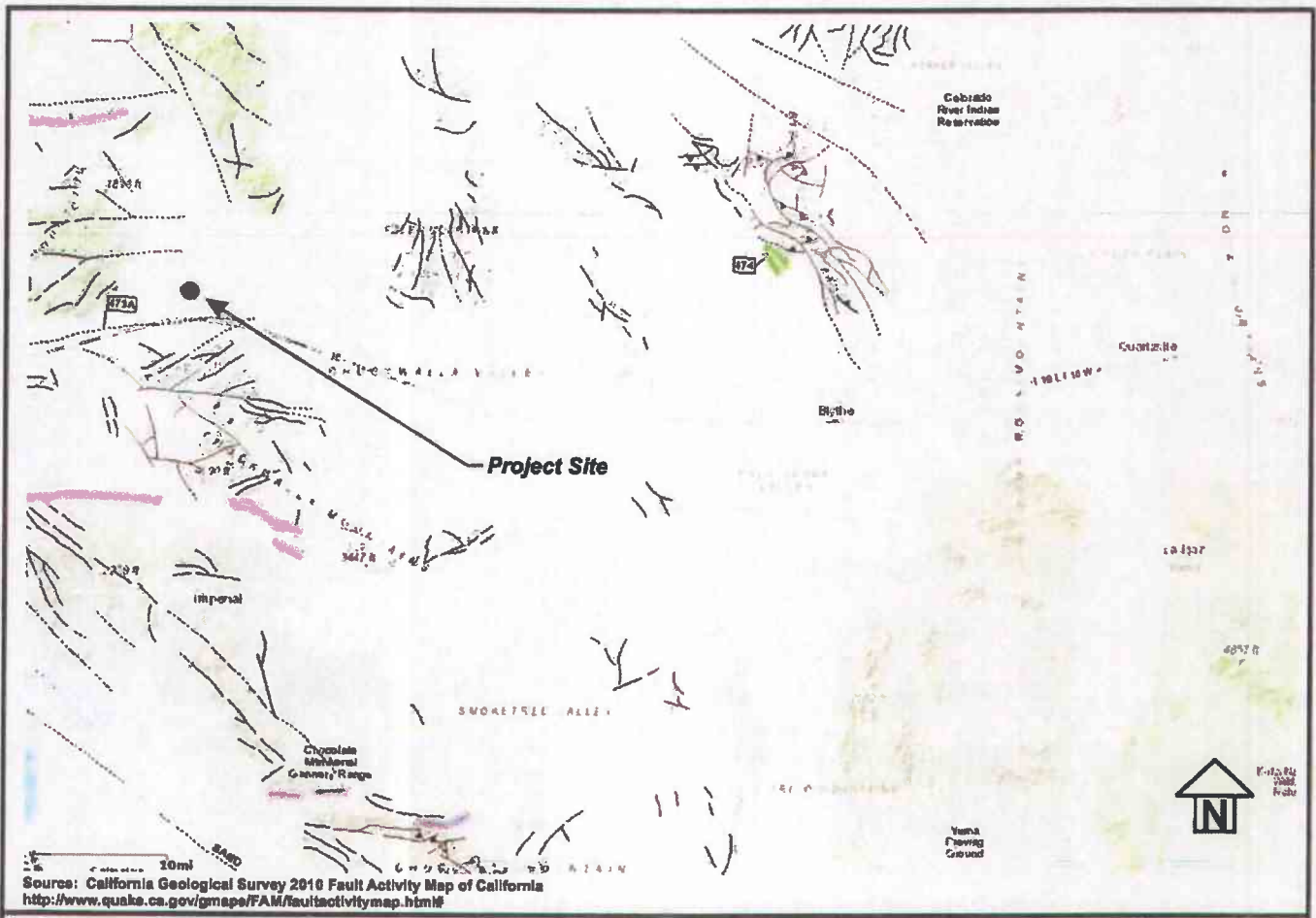


Source: California Geological Survey 2010 Fault Activity Map of California
<http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#>

LANDMARK
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 Project No.: LP21057

Regional Fault Map

Figure 1



LANDMARK
Geo-Engineers and Geologists

Project No.: LP21057

Map of Local Faults

Figure 2

EXPLANATION

Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays. Fault traces are queried where continuation or extension is uncertain. Concealed faults in the Great Valley are traced on maps of selected subsurface horizons, so locations shown are approximate and may include structural trend only. All offshore faults based on seismic reflection profile records are shown as solid lines where well defined, dashed where inferred, queried where uncertain.

FAULT CLASSIFICATION COLOR CODE (Indicating Recency of Movement)

- Fault along which historic (last 200 years) displacement has occurred and is associated with one or more of the following:
 - (a) a recorded earthquake with surface rupture. (Also included are some well-defined surface breaks caused by ground shaking during earthquakes, e.g. extensive ground breakage, not on the White Wolf fault, caused by the Arvin-Tehachapi earthquakes of 1868). The date of the associated earthquake is indicated. Where repeated surface ruptures on the same fault have occurred, only the date of the latest movement may be indicated, especially if earlier reports are not well documented as to location of ground breaks.
 - (b) fault creep slippage - slow ground displacement usually without accompanying earthquakes
 - (c) displaced survey lines.
- A triangle to the right or left of the date indicates termination point of observed surface displacement. Solid red triangle indicates known location of rupture termination point. Open black triangle indicates uncertain or estimated location of rupture/termination point.
- Date bracketed by triangles indicates local fault break.
- No triangle by date indicates an intermediate point along fault break.
- Fault that exhibits fault creep slippage. Hashmarks indicate linear extent of fault creep. Annotation (creep with leader) indicates representative locations where fault creep has been observed and recorded.
- Square on fault indicates where fault creep slippage has occurred that has been triggered by an earthquake on some other fault. Date of causative earthquake indicated. Squares to right and left of date indicate terminal points between which triggered creep slippage has occurred (creep either continuous or intermittent between these end points).
- Holocene fault displacement (during past 11,700 years) without historic record. Geomorphic evidence for Holocene faulting includes egg ponds, scarpes showing little erosion, or the following features in Holocene age deposits: offset stream courses, linear scarps, shutter ridges, and bimarginal faceted spurs. Recency of faulting offshore is based on the interpreted age of the youngest strata displaced by faulting.
- Late Quaternary fault displacement (during past 700,000 years). Geomorphic evidence similar to that described for Holocene faults except features are less distinct. Faulting may be younger, but lack of younger overlying deposits precludes more accurate age classification.
- Quaternary fault (age undifferentiated). Most faults of this category show evidence of displacement sometime during the past 1.6 million years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age. Unnumbered Quaternary faults were based on Fault Map of California, 1975. See Bulletin 201, Appendix D for source data.
- Pre-Quaternary fault (older than 1.6 million years) or fault without recognized Quaternary displacement. Some faults are shown in this category because the source of mapping used was of reconnaissance nature, or was not done with the object of showing fault displacements. Faults in this category are not necessarily inactive.

ADDITIONAL FAULT SYMBOLS

- Bar and ball on downthrown side (relative or apparent).
- Arrow along fault indicates sense or apparent direction of lateral movement.
- Arrow on fault indicates direction of dip.
- Low angle fault (barbs on upper plate). Fault surface generally dips less than 45° but locally may have been subsequently steepened. On offshore faults, barbs imply a reverse fault regardless of steepness of dip.

OTHER SYMBOLS

- Numbers refer to accelerations listed in the appendices of the accompanying report. Annotations include fault name, age of fault displacement, and pertinent references including Earthquake Fault Zone maps where a fault has been named by the Alquist-Priolo Earthquake Fault Zoning Act. This Act requires the State Geologist to delineate zones to encompass faults with Holocene displacement.
- Structural discontinuity (offshore) separating differing lithologic structures domains. May indicate discontinuities between basaltic rocks.
- Brawley Seismic Zone, a linear zone of seismicity locally up to 10 km wide associated with the releasing creep between the Imperial and San Andreas faults.

Geologic Time Scale	Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
				ON LAND	OFFSHORE
Quaternary	Holocene		Active	Displacement during historic time by 1868-1869 North 1868	
				200	
				11,700	
Quaternary	Pleistocene		Recent		
				700,000	
Pre-Quaternary	600,000		Inactive	Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Faults older than Quaternary or older age.
				< 500,000 (Age of Earth)	

* Quaternary here recognized as extending to 2.5 Ma (Miller and Gamble, 1975). Quaternary faults on this map were established on the basis of 1.6 Ma criterion.

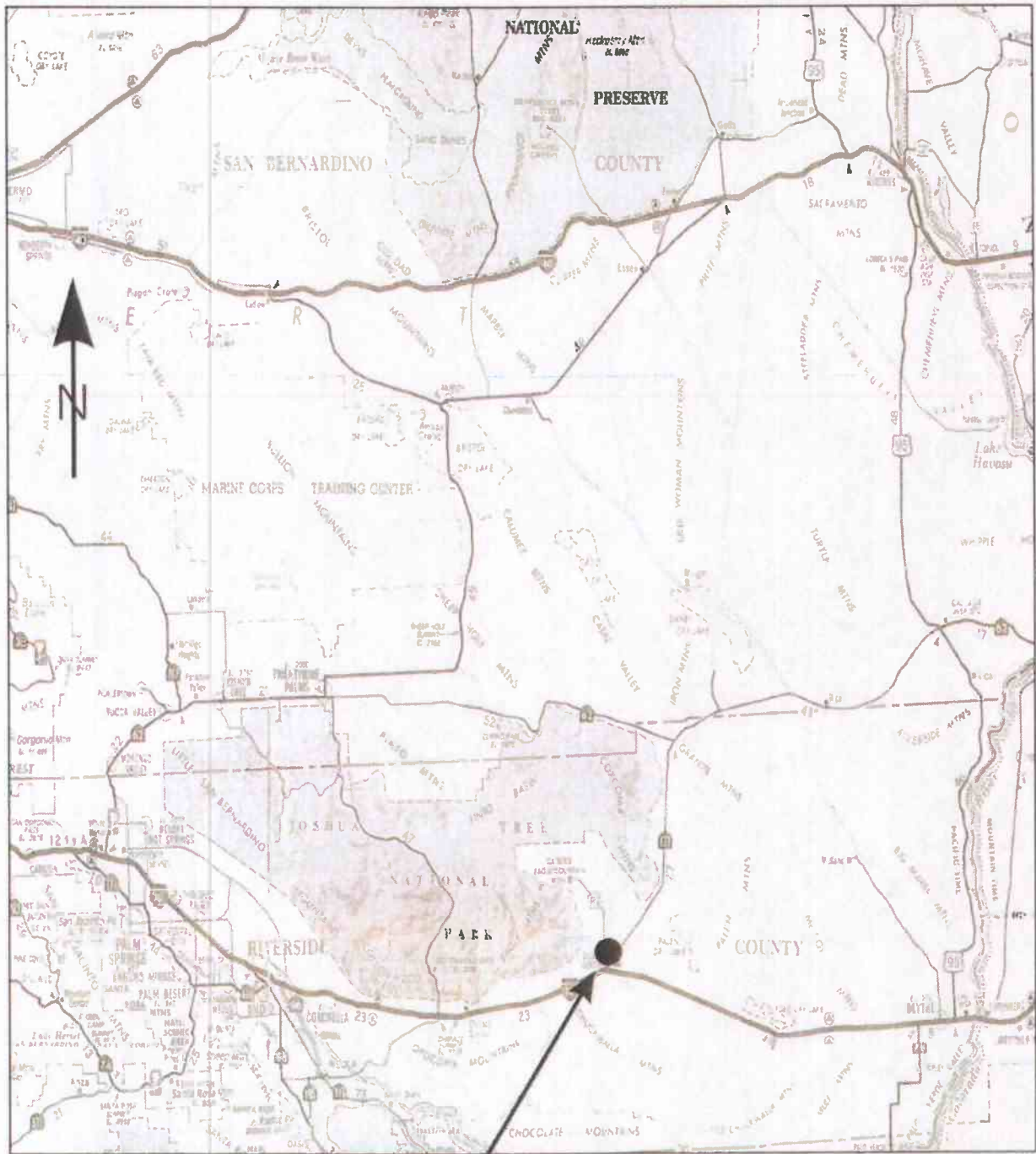


Project No.: LP21057

Fault Map Legend

Figure 3

APPENDIX A



Project Site

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Project No.: LP21057

Vicinity Map

**Plate
A-1**



Legend

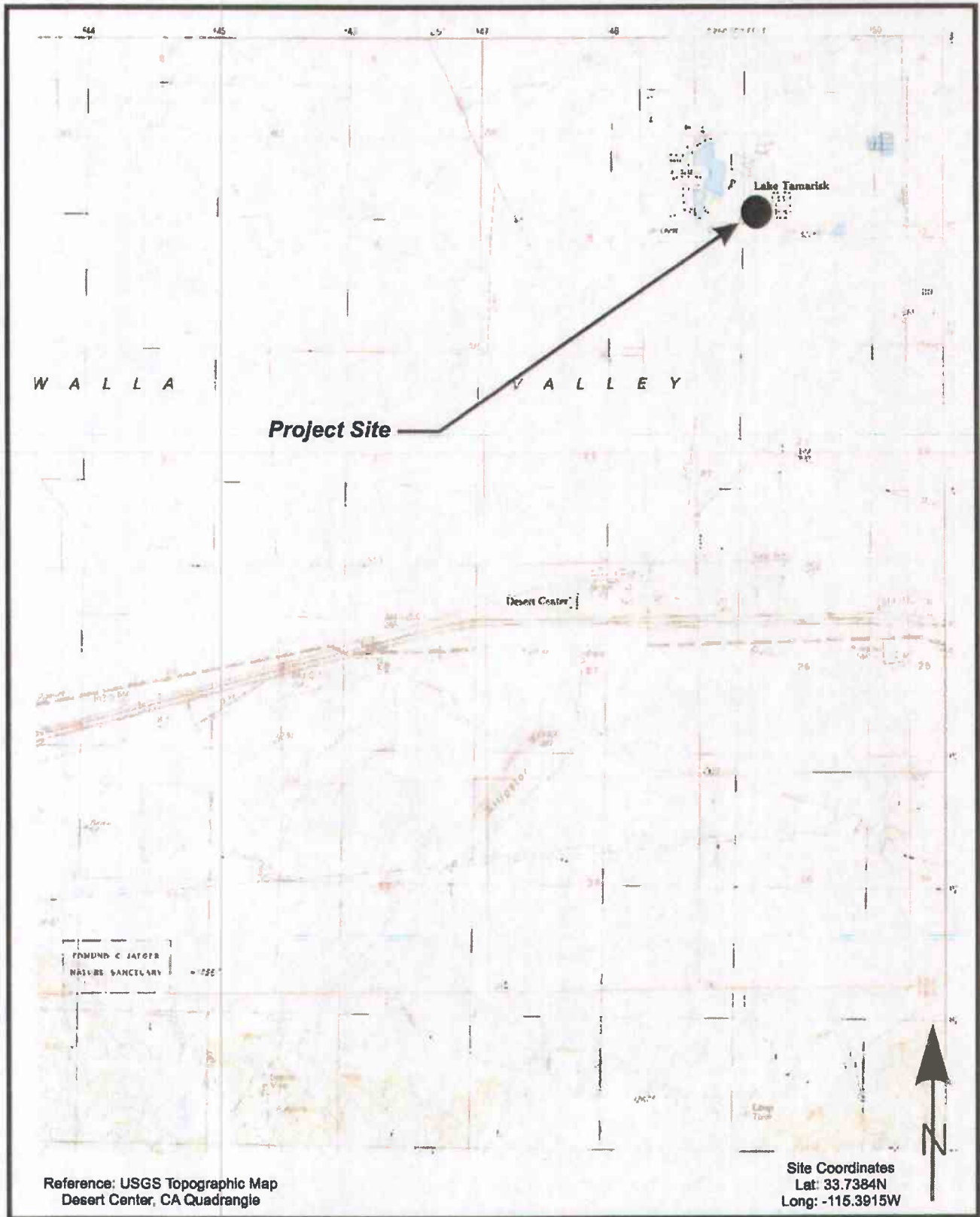
-  Approximate Boring Location
-  Approximate Infiltration Test Location



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Project No.: LP21057

Site and Exploration Plan

**Plate
A-2**

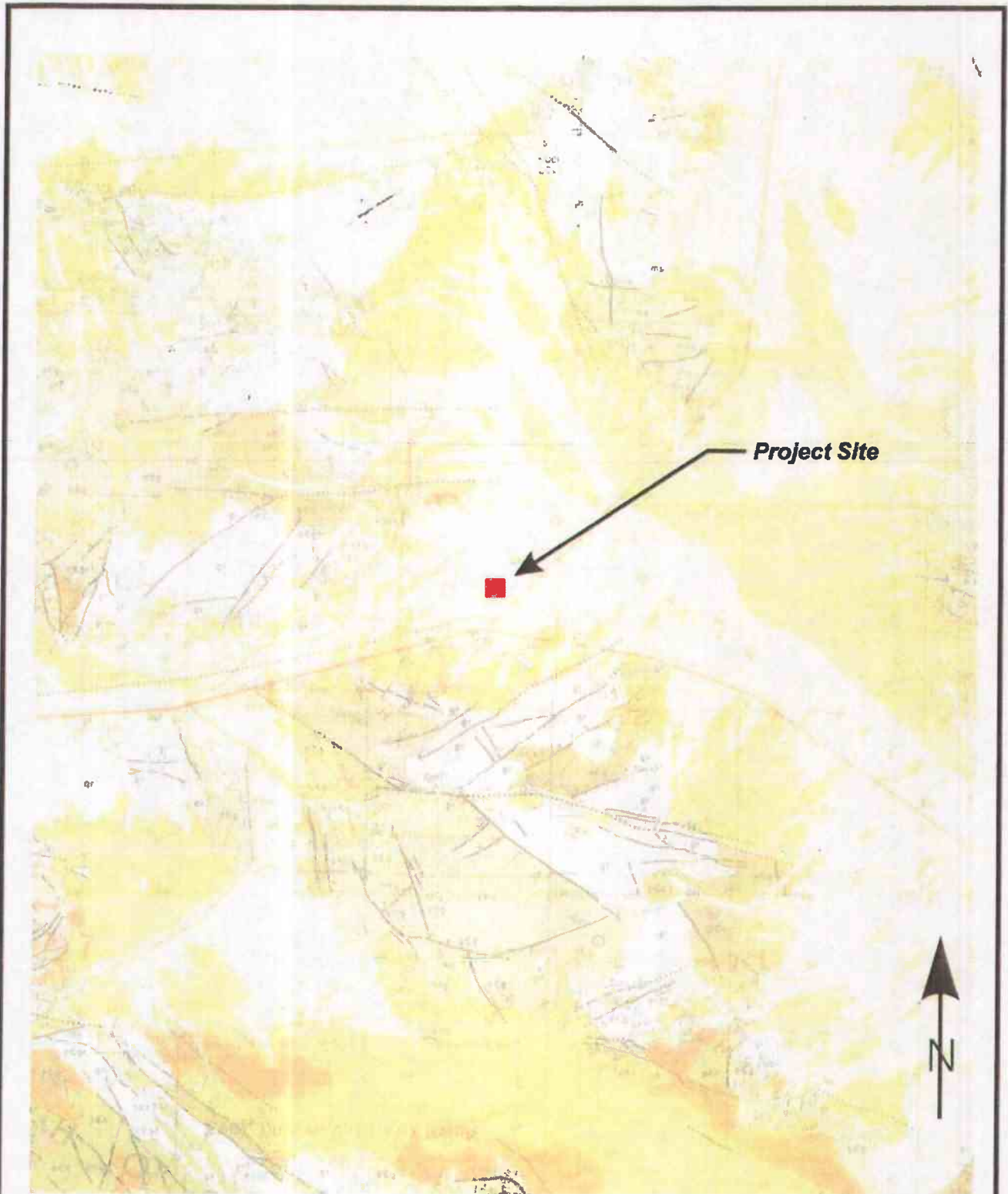


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Topographic Map

Plate
A-3



Project Site

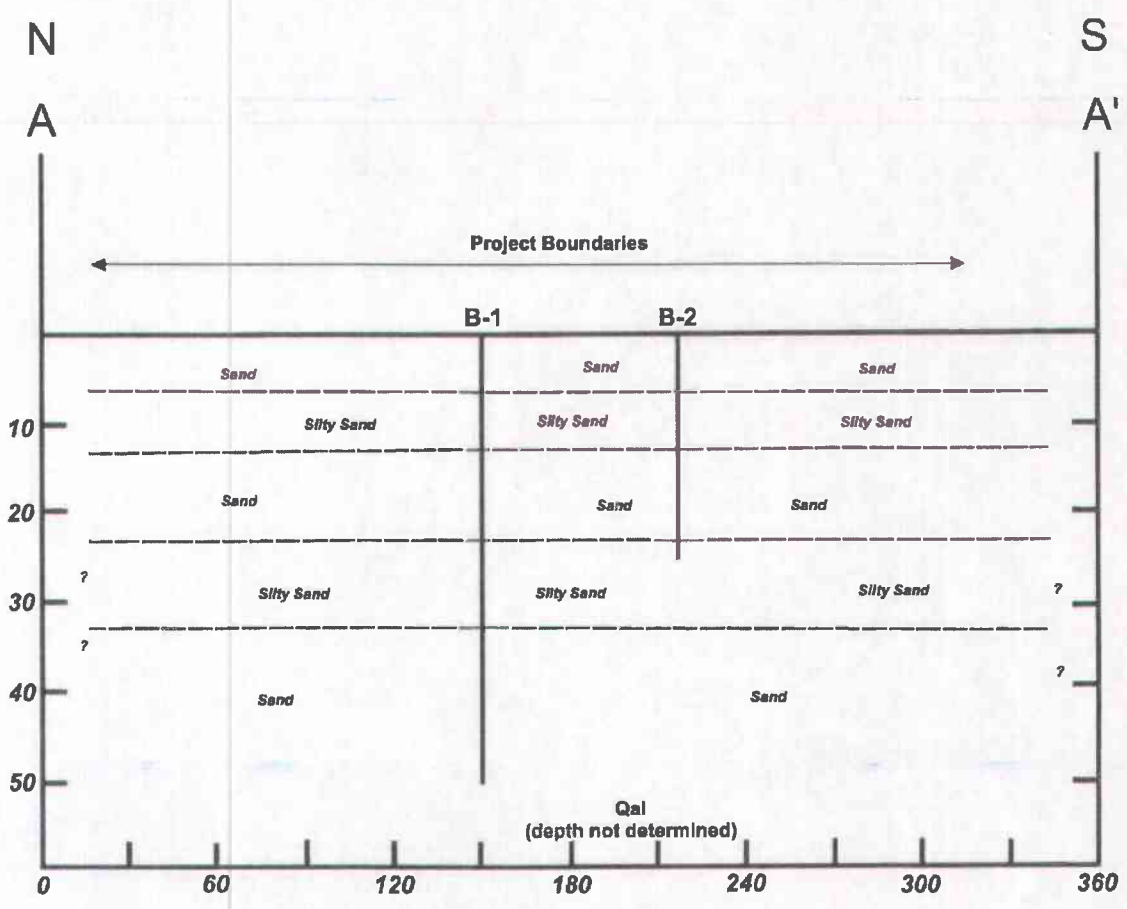
Site Coordinates
Lat: 33.7384N
Long: 115.3915W

Geology Map of California - Salton Sea Sheet (1:250,000)

LANDMARK
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Project No.: LP21057

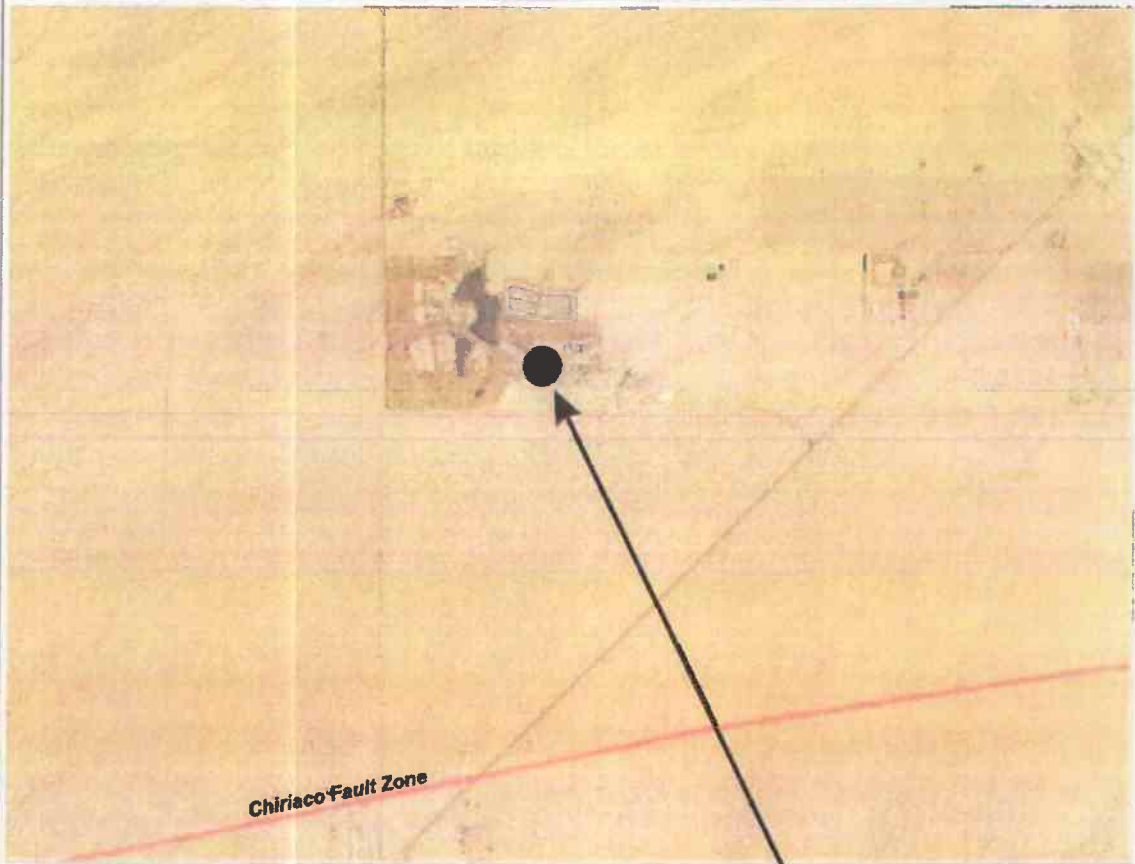
Regional Geologic Map

**Plate
A-4**



Scale
 1" = 60' Horizontal
 1" = 20' Vertical

Fault Map



Chiriaco Fault Zone

Project Site

Legend

Faults

Fault Zones



Notes



0 3,000 6,019 Feet

IMPORTANT: Maps and data are to be used for reference purposes only. Map features are approximate and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

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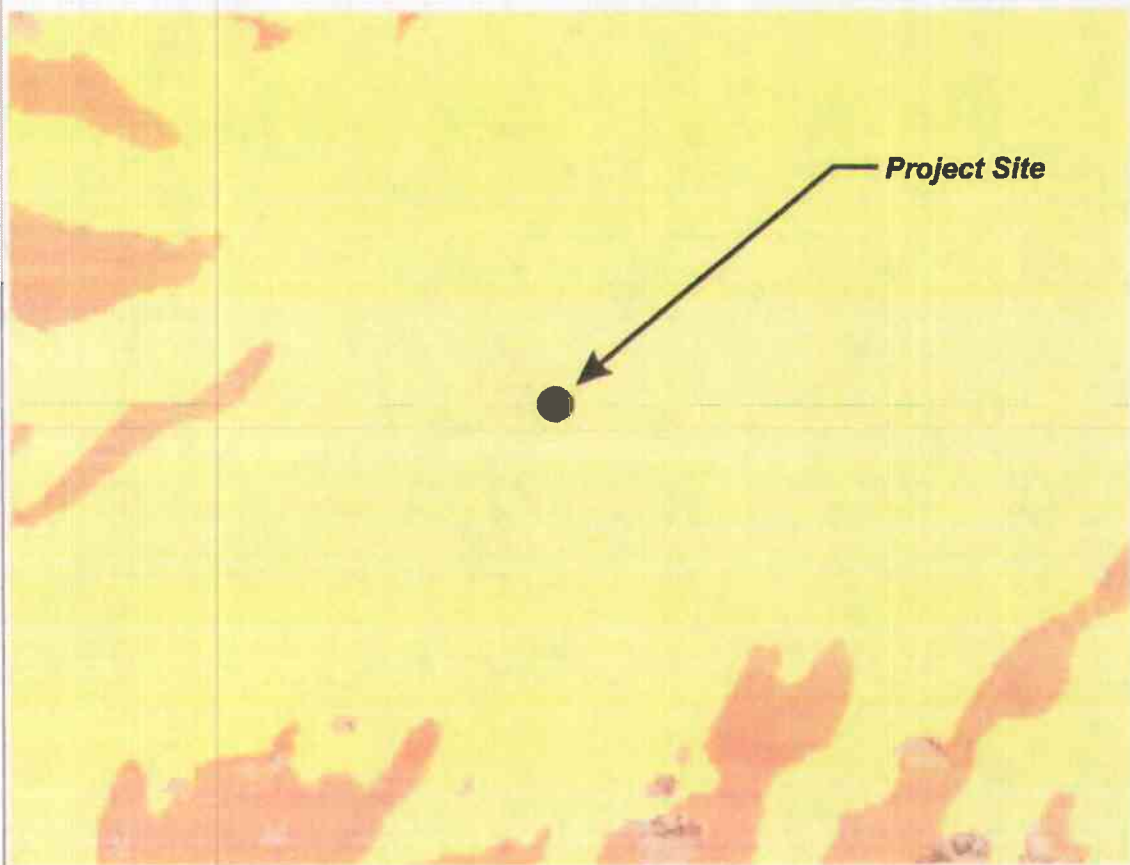
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Geo-Engineers and Geologists
Project No.: LP21057

Riverside County
Geographic Information System (GIS)
Fault Zones

Plate
A-6

Liquefaction Map



Legend

Liquefaction



10. Area



10. Area

Liquefaction

Notes



0 6.019 12.038 Feet

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REVISION 10/10/10 10/10/10 10/10/10

Revised by: JTB

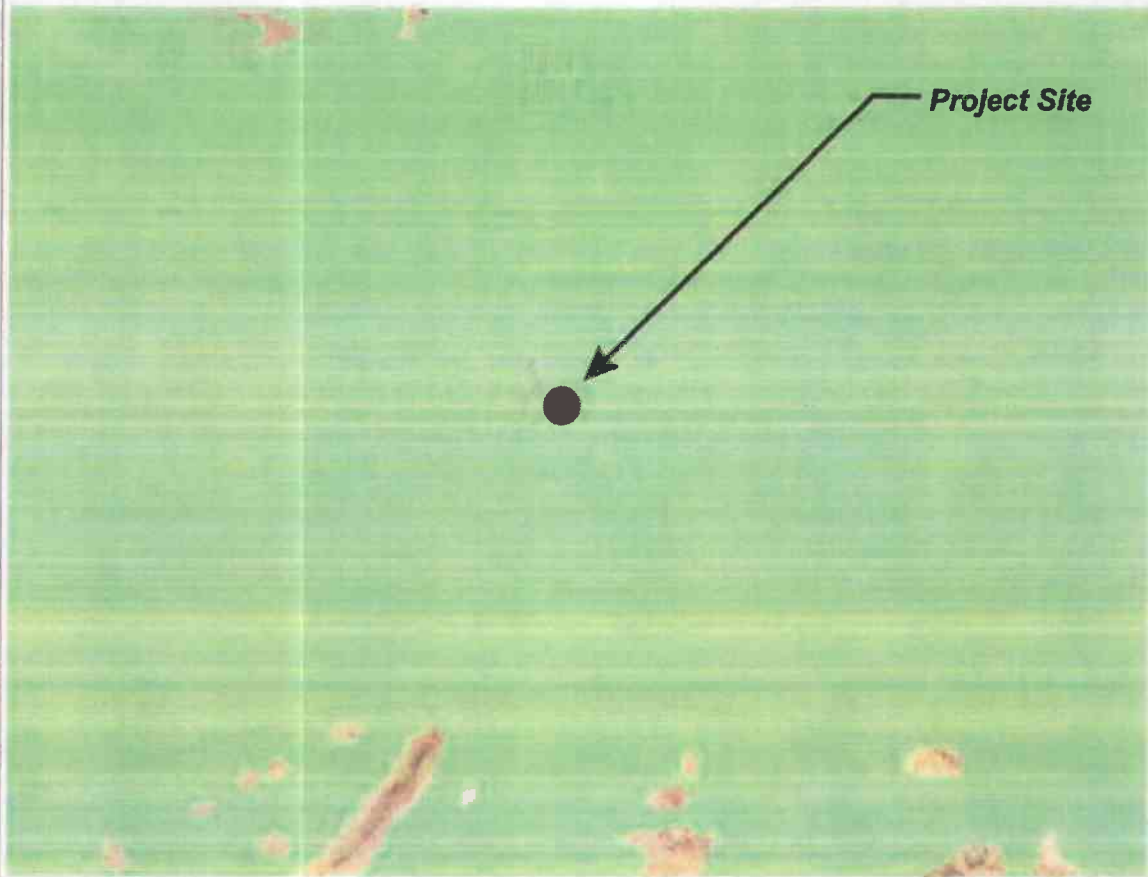
LANDMARK
Geo-Engineers and Geologists

Project No.: LP21057

Riverside County
Geographic Information System (GIS)
Liquefaction Zones

Plate
A-7

Subsidence Map



Legend

- Subsidence
- Level

Los Angeles



San Diego

San Jose

San Francisco

Notes



0 6,015

12,037 Feet

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REPORT PRINTED ON: 09/03/2017 08:21 PM

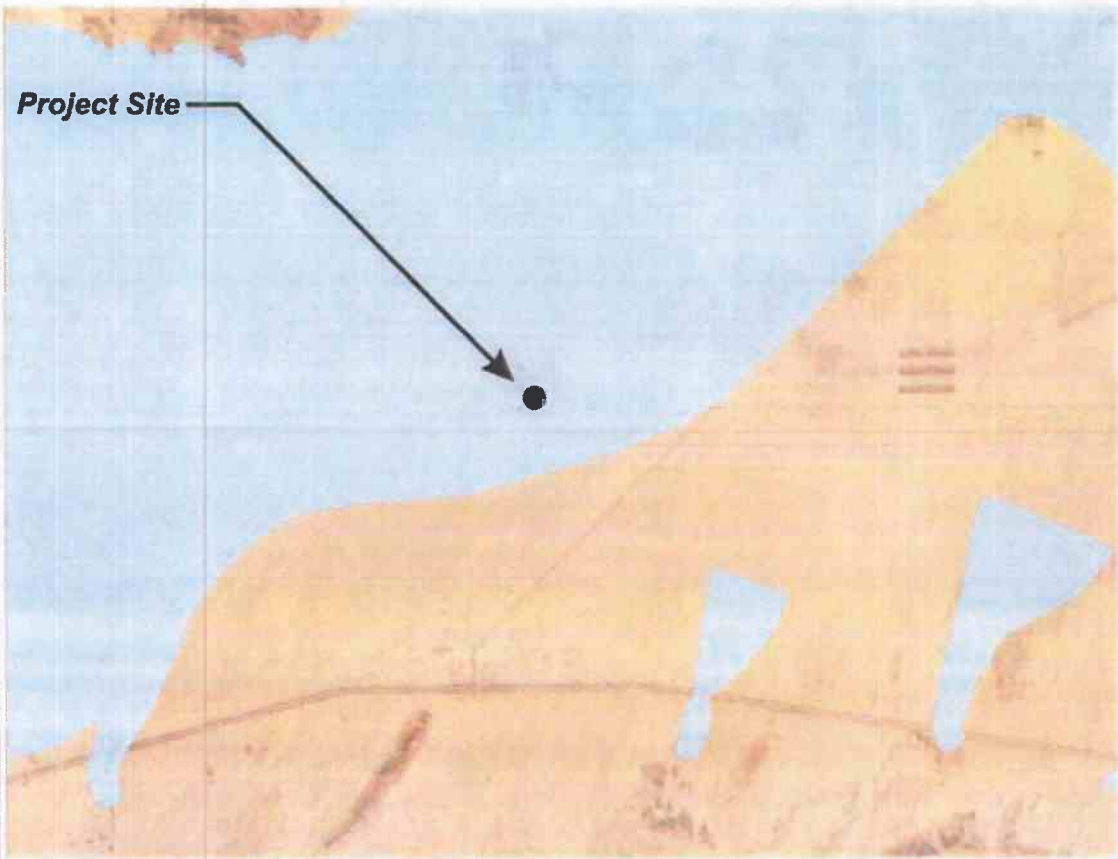
Riverside County GIS

LANDMARK
Geo-Engineers and Geologists
Project No.: LP21057

Riverside County
Geographic Information System (GIS)
Subsidence

Plate
A-8

Flood Map



Project Site

Legend

Flood

City of Anaheim

City of Orange

Notes



6,019

12,038 Feet

THIS MAP WAS PREPARED BY THE COUNTY OF RIVERSIDE COUNTY INFORMATION TECHNOLOGY (RCIT) FOR THE COUNTY OF RIVERSIDE COUNTY. THE COUNTY OF RIVERSIDE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE DATA OR THE RESULTS OF THE ANALYSIS. THE COUNTY OF RIVERSIDE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE DATA OR THE RESULTS OF THE ANALYSIS. THE COUNTY OF RIVERSIDE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE DATA OR THE RESULTS OF THE ANALYSIS.

REPORT NUMBER: ESD-01-000000-04-00-00

Riverside County GIS



LANDMARK
Geo-Engineers and Geologists

Project No.: LP21057

Riverside County
Geographic Information System (GIS)
Flood Zones

Plate
A-9

APPENDIX B

DEPTH	FIELD				LOG OF BORING No. B-1 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5			45		SILTY SAND (SM): Reddish brown, dry, dense, fine to coarse grained, some gravel	122.1	1.3	Passing #200 = 5.4%
			47		SAND (SP-SM): Reddish brown, dry, dense, medium to coarse grained, some gravel	125.1	1.5	Passing #200 = 7.5%
10			50/6"		SILTY SAND (SM): Reddish brown, dry, dense to hard, fine to coarse grained, some fine gravel	126.4	2.6	Passing #200 = 14.8%
15			53		SAND (SP-SM): Reddish brown, dry, dense to very dense, medium to coarse grained, some gravel	115.2	1.3	
20			51				2.6	Passing #200 = 6.3%
25			61		SILTY SAND (SM): Reddish brown, dry, dense to very dense, fine to coarse grained, some fine gravel		2.3	
30			51				2.2	Passing #200 = 12.8%
35			47		SAND (SP-SM): Reddish brown, dry, dense to very dense, medium to coarse grained, some gravel		1.2	
40			54				1.2	Passing #200 = 7.0%
45			49		Light brown, some pea sized gravel		1.5	
50			53				1.7	Passing #200 = 8.8%
55					Groundwater was not encountered at time of drilling. This is not considered the stabilized groundwater depth as groundwater may rise to a level higher than that measured in borehole.			
60								

DATE DRILLED: 3/17/21	TOTAL DEPTH: 51.5 feet	DEPTH TO WATER: NA
LOGGED BY: L. Jackson	TYPE OF BIT: Hollow Stem Auger	DIAMETER: 8 in.
SURFACE ELEVATION: Approximately 725 ft	HAMMER WT.: 140 lbs.	DROP: 30 in.
















DEPTH	FIELD			LOG OF BORING No. B-2 SHEET 1 OF 1	LABORATORY			
	SAMPLE	USCS CLASS.	BLOW COUNT		POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5			34		SAND (SP-SM): Reddish brown, dry, dense to very dense, medium to coarse grained, some gravel	119.0	2.1	Passing #200 = 8.8%
			60			128.4	1.5	
10			53		SILTY SAND (SM): Reddish brown, dry, very dense, fine to coarse grained, some fine gravel	103.2	4.3	Passing #200 = 29.5%
			68			122.6	2.5	Passing #200 = 14.9%
15			76		SAND (SP-SM): Reddish brown, dry, dense to very dense, medium to coarse grained, some gravel	122.5	1.8	
20			44				2.3	Passing #200 = 10.7%
25			40		SILTY SAND (SM): Reddish brown, dry, dense, fine to coarse grained, some fine gravel		1.4	
30								
35								
40								
45								
50								
55								
60								

Groundwater was not encountered at time of drilling. This is not considered the stabilized groundwater depth as groundwater may rise to a level higher than that measured in borehole.

DATE DRILLED: 3/17/21	TOTAL DEPTH: 26.5 feet	DEPTH TO WATER: NA
LOGGED BY: L. Jackson	TYPE OF BIT: Hollow Stem Auger	DIAMETER: 8 in.
SURFACE ELEVATION: Approximately 725 ft	HAMMER WT.: 140 lbs.	DROP: 30 in.

PROJECT NO. LP21057	LANDMARK Geo-Engineers and Geologists	PLATE B-2
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DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDRY DIVISIONS	
Coarse grained soils More than half of material is larger than No. 200 sieve	Gravels	Clean gravels (less than 5% fines)		GW Well graded gravels, gravel-sand mixtures, little or no fines	
		More than half of coarse fraction is larger than No. 4 sieve	Gravel with fines		GP Poorly graded gravels, or gravel-sand mixtures, little or no fines
					GM Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC Clayey gravels, gravel-sand-clay mixtures, plastic fines		
	Sands	Clean sands (less than 5% fines)		SW Well graded sands, gravelly sands, little or no fines	
		More than half of coarse fraction is smaller than No. 4 sieve	Sands with fines		SP Poorly graded sands or gravelly sands, little or no fines
					SM Silty sands, sand-silt mixtures, non-plastic fines
			SC Clayey sands, sand-clay mixtures, plastic fines		
Fine grained soils More than half of material is smaller than No. 200 sieve	Silts and clays			ML Inorganic silts, clayey silts with slight plasticity	
	Liquid limit is less than 50%			CL Inorganic clays of low to medium plasticity, gravelly, sandy, or lean clays	
	Liquid limit is less than 50%			OL Organic silts and organic clays of low plasticity	
	Silts and clays			MH Inorganic silts, micaceous or diatomaceous silty soils, elastic silts	
	Liquid limit is more than 50%			CH Inorganic clays of high plasticity, fat clays	
	Liquid limit is more than 50%			OH Organic clays of medium to high plasticity, organic silts	
Highly organic soils				PT Peat and other highly organic soils	

GRAIN SIZES

Sils and Clays	Sand			Gravel		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		
	200	40	10	4	3/4"	3"	12"
	US Standard Series Sieve				Clear Square Openings		

Sands, Gravels, etc.	Blows/ft. *
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

Clays & Plastic Silts	Strength **	Blows/ft. *
Very Soft	0-0.25	0-2
Soft	0.25-0.5	2-4
Firm	0.5-1.0	4-8
Stiff	1.0-2.0	8-16
Very Stiff	2.0-4.0	16-32
Hard	Over 4.0	Over 32


* Number of blows of 140 lb. hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 in. I.D.) split spoon (ASTM D1586).

** Unconfined compressive strength in tons/s.f. as determined by laboratory testing or approximated by the Standard Penetration Test (ASTM D1586), Pocket Penetrometer, Torvane, or visual observation.

Type of Samples:

Ring Sample
 Standard Penetration Test
 Shelby Tube
 Bulk (Bag) Sample

Drilling Notes:

1. Sampling and Blow Counts
 - Ring Sampler - Number of blows per foot of a 140 lb. hammer falling 30 inches.
 - Standard Penetration Test - Number of blows per foot.
 - Shelby Tube - Three (3) inch nominal diameter tube hydraulically pushed.
2. P. P. = Pocket Penetrometer (tons/s.f.).
3. NR = No recovery.
4. GWT  = Ground Water Table observed @ specified time.

LANDMARK

Geo-Engineers and Geologists

Project No. LP21057

Key to Logs

**Plate
B-3**

APPENDIX C

LANDMARK CONSULTANTS, INC.

CLIENT: County of Riverside
PROJECT: Fire Station 49 - Desert Center, CA
JOB No.: LP21057
DATE: 03/29/21

CHEMICAL ANALYSIS

Boring:	B-1	
Sample Depth, ft:	0-3	Caltrans Method
pH:	8.5	643
Electrical Conductivity (mmhos):	-	424
Resistivity (ohm-cm):	3,800	643
Chloride (Cl), ppm:	100	422
Sulfate (SO₄), ppm:	257	417

General Guidelines for Soil Corrosivity

Material Affected	Chemical Agent	Amount in Soil (ppm)	Degree of Corrosivity
Concrete	Soluble Sulfates	0 - 1,000	Low
		1,000 - 2,000	Moderate
		2,000 - 20,000	Severe
		> 20,000	Very Severe
Normal Grade Steel	Soluble Chlorides	0 - 200	Low
		200 - 700	Moderate
		700 - 1,500	Severe
		> 1,500	Very Severe
Normal Grade Steel	Resistivity	1 - 1,000	Very Severe
		1,000 - 2,000	Severe
		2,000 - 10,000	Moderate
		> 10,000	Low



Project No.: LP21057

Selected Chemical Test Results

Plate C-2

Client: County of Riverside

Project: Fire Station 49 - Desert Center, CA

Project No.: LP21057

Date: 3/29/2021

Lab. No.: N/A

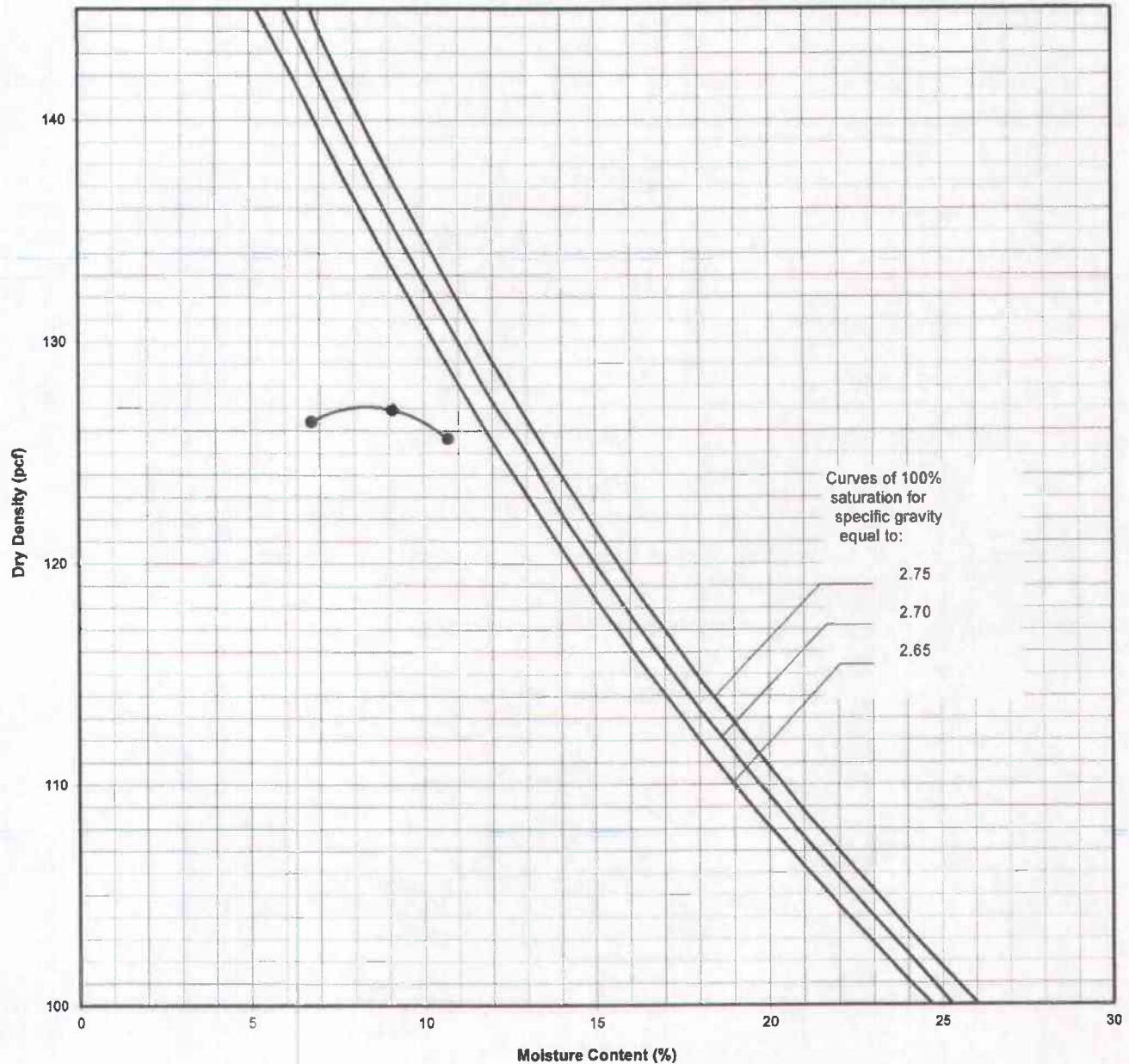
Soil Description: Brown Silty Sand (SM)

Sample Location: B-1 @ 0-3 ft.

Test Method: ASTM D-1557 A

Maximum Dry Density (pcf): 127.1

Optimum Moisture Content (%): 8.4



LANDMARK
Geo-Engineers and Geologists

Project No.: LP21057

Moisture Density Relationship

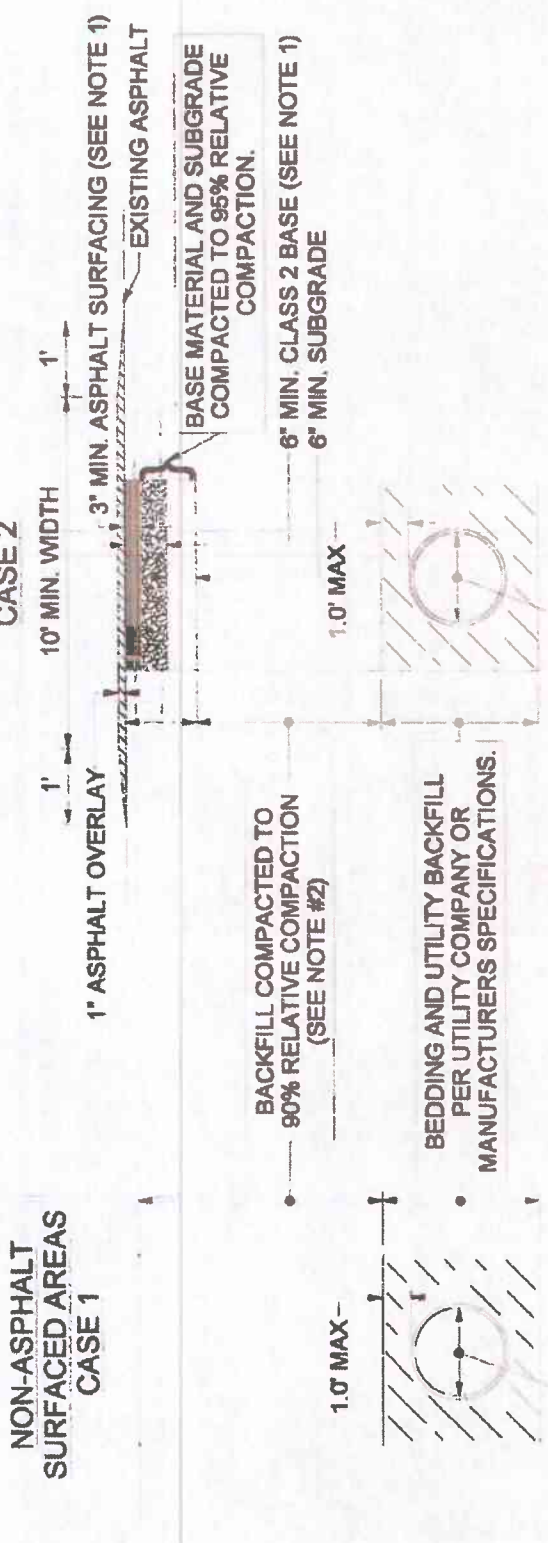
Plate
C-3

APPENDIX D

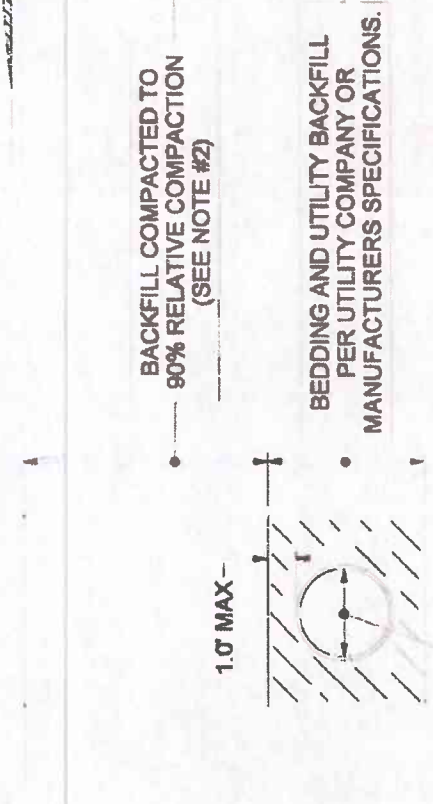
APPENDIX E



ASPHALT SURFACED STREETS WITH OVERLAY PARALLEL INSTALLATION CASE 2



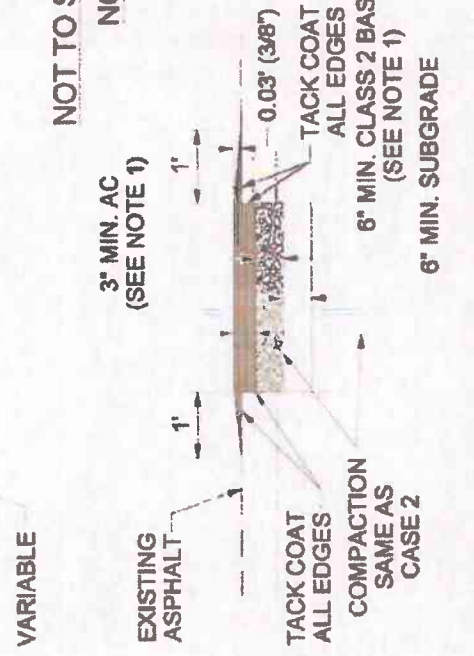
NON-ASPHALT SURFACED AREAS CASE 1



NOT TO SCALE

NOTES:

1. REPLACE STRUCTURAL SECTION AS FOLLOWS:
SURFACING: EXISTING THICKNESS; OR 3" MIN. A.C., TYPE B.
BASE: CLASS 2 A.B. IN SAME THICKNESS AS EXISTING BASE MATERIAL, 6" MIN. AS DIRECTED BY THE INSPECTOR.
2. MAXIMUM LIFT THICKNESS IS 8 INCHES; MAXIMUM LIFT THICKNESS WHEN PONDING AND JETTING IS 4 FEET.
3. WHEN A FIRM FOUNDATION IS NOT ENCOUNTERED, DUE TO SOFT, SPONGY OR OTHER UNSUITABLE MATERIAL, SUCH MATERIAL SHALL BE REMOVED TO THE LIMITS DIRECTED BY THE DIRECTOR OF TRANSPORTATION OR AFFECTED UTILITY COMPANY AND THE RESULTING EXCAVATION BACKFILLED WITH PIPE BEDDING MATERIAL.



ASPHALT SURFACED STREET WITHOUT OVERLAY PERPENDICULAR INSTALLATION CASE 3

APPENDIX F



LANDMARK CONSULTANTS, INC

Project:	Fire Station49	Project No:	LP21057	Date:	03/23/21
Test Hole No:	I-1	Tested By:	Alex A		
Depth of Test Hole, D ₁ :	5'	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)				Length	Width
Diameter (if round)=	6"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6" (y/n)
1	8:50	9:15	25.00	10.00	0.00	10.00	y
2	9:15	9:40	25.00	12.00	1.00	11.00	y

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D ₀ Initial Depth to Water (in.)	D ₁ Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	9:42	9:52	10.00	22.00	30.00	8.00	1.25
2	9:52	10:02	10.00	30.00	38.00	8.00	1.25
3	10:02	10:12	10.00	38.00	45.00	7.00	1.43
4	10:12	10:22	10.00	24.00	31.00	7.00	1.43
5	10:22	10:32	10.00	31.00	37.00	6.00	1.67
6	10:32	10:42	10.00	37.00	43.00	6.00	1.67
7							
8							
9							
10							
11							
12							

COMMENTS:



Project No.: LP21057

Percolation Test Results

**Plate
F-1**

PERCOLATION RATE CONVERSION

CLIENT: County of Riverside
PROJECT: Fire Station 49
PROJECT NO.: LP21057
DATE: 4/2/2021

TEST HOLE NO: I-1

Time interval, $\Delta t = 10$ inches Initial Depth to Water, $D_0 = 37$ inches
Final Depth to Water, $D_f = 43$ inches Total Depth of Test Hole, $D_T = 60$ inches
*Test Hole Radius, $r = 3$ inches

The conversion equation is used:

$$I_t = \frac{\Delta H \ 60 \ r}{\Delta t (r + 2H_{avg})}$$

" H_0 " is the initial height of water at the selected time interval

$$H_0 = D_T - D_0 = 60 - 37 = 23 \text{ inches}$$

" H_f " is the final height of water at the selected time interval

$$H_f = D_T - D_f = 60 - 43 = 17 \text{ inches}$$

" ΔH " is the change in height over the time interval

$$\Delta H = \Delta D = H_0 - H_f = 23 - 17 = 6 \text{ inches}$$

" H_{avg} " is the average head height over the time interval

$$H_{avg} = (H_0 + H_f) / 2 = (23 + 17) / 2 = 20 \text{ inches}$$

" I_t " is the tested infiltration rate

$$I_t = \frac{\Delta H \ 60 \ r}{\Delta t (r + 2H_{avg})} = \frac{(6 \text{ in})(60 \text{ min/hr})(3 \text{ in})}{(10 \text{ min})((3 \text{ in}) + 2(20 \text{ in}))} = 2.5 \text{ in/hr}$$

LANDMARK
Geo-Engineers and Geologists

Project No.: LP21057

Percolation Rate Conversion

Plate
F-2

LANDMARK CONSULTANTS, INC

Project:	Fire Station 49	Project No:	LP21057	Date:	03/23/21
Test Hole No:	I-2	Tested By:	Alex A		
Depth of Test Hole, D_T :	5'	USCS Soil Classification:	SM		
Test Hole Dimensions (inches)				Length	Width
Diameter (if round)=	6"	Sides (if rectangular)=			

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"?(y/n)
1	10:51	11:16	25.00	12.00	3.00	9.00	y
2	11:16	11:41	25.00	12.00	4.00	8.00	y

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_0 Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	11:43	11:53	10.00	12.00	19.00	7.00	1.43
2	11:53	12:03	10.00	19.00	26.00	7.00	1.43
3	12:03	12:13	10.00	26.00	33.00	7.00	1.43
4	12:13	12:23	10.00	33.00	39.50	6.50	1.54
5	12:23	12:33	10.00	39.50	45.50	6.00	1.67
6	12:33	12:43	10.00	45.50	51.50	6.00	1.67
7							
8							
9							
10							
11							
12							

COMMENTS:



Project No.: LP21057

Percolation Test Results

**Plate
F-3**

PERCOLATION RATE CONVERSION

CLIENT: County of Riverside
PROJECT: Fire Station 49
PROJECT NO.: LP21057
DATE: 4/2/2021

TEST HOLE NO: I-2

Time interval, $\Delta t = 10$ inches

Initial Depth to Water, $D_0 = 45.5$ inches

Final Depth to Water, $D_f = 51.5$ inches

Total Depth of Test Hole, $D_T = 60$ inches

*Test Hole Radius, $r = 3$ inches

The conversion equation is used:

$$I_t = \frac{\Delta H 60 r}{\Delta t (r + 2H_{avg})}$$

" H_0 " is the initial height of water at the selected time interval

$$H_0 = D_T - D_0 = 60 - 45.5 = 14.5 \text{ inches}$$

" H_f " is the final height of water at the selected time interval

$$H_f = D_T - D_f = 60 - 51.5 = 8.5 \text{ inches}$$

" ΔH " is the change in height over the time interval

$$\Delta H = \Delta D = H_0 - H_f = 14.5 - 8.5 = 6 \text{ inches}$$

" H_{avg} " is the average head height over the time interval

$$H_{avg} = (H_0 + H_f) / 2 = (14.5 + 8.5) / 2 = 11.5 \text{ inches}$$

" I_t " is the tested infiltration rate

$$I_t = \frac{\Delta H 60 r}{\Delta t (r + 2H_{avg})} = \frac{(6 \text{ in})(60 \text{ min/hr})(3 \text{ in})}{(10 \text{ min})((3 \text{ in}) + 2(11.5 \text{ in}))} = 4.15 \text{ in/hr}$$

LANDMARK
Geo-Engineers and Geologists

Project No.: LP21057

Percolation Rate Conversion

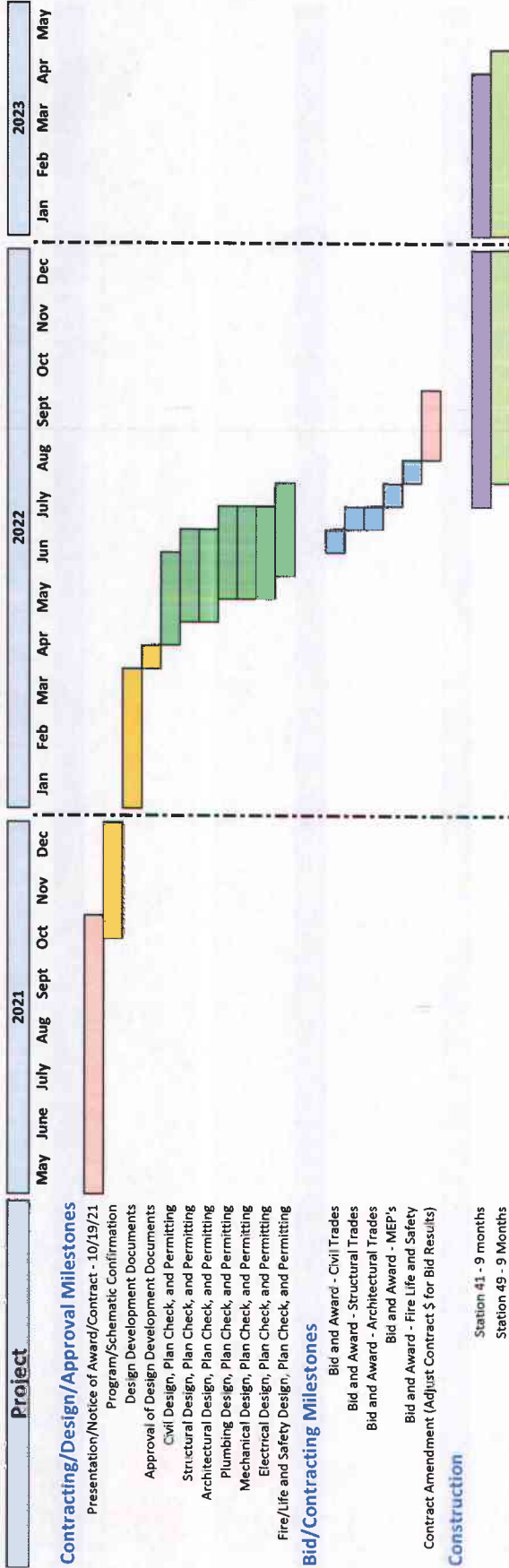
Plate
F-4



EXHIBIT G

County of Riverside
Fire Station 41 and 49

Fast-Track Permitting/Design Approach- 18 Months (from Board Approval of Contract)



Contracting/Design/Approval Milestones

- Presentation/Notice of Award/Contract - 10/19/21
- Program/Schematic Confirmation
- Design Development Documents
- Approval of Design Development Documents
- Civil Design, Plan Check, and Permitting
- Structural Design, Plan Check, and Permitting
- Architectural Design, Plan Check, and Permitting
- Plumbing Design, Plan Check, and Permitting
- Mechanical Design, Plan Check, and Permitting
- Electrical Design, Plan Check, and Permitting
- Fire/Life and Safety Design, Plan Check, and Permitting

Bid/Contracting Milestones

- Bid and Award - Civil Trades
- Bid and Award - Structural Trades
- Bid and Award - Architectural Trades
- Bid and Award - MEP's
- Bid and Award - Fire Life and Safety
- Contract Amendment (Adjust Contract \$ for Bid Results)

Construction

- Station 41 - 9 months
- Station 49 - 9 Months

Notes:

- Assuming a 10/19/21 Board approval of Contracts
- Progressive Design Approach - TCC will manage the budget the best we can, but will let the End Users be Collaborative in the Design with a Contract Price trueing adjustment at the end once all trades are bid.
- Contract price shall include a contractor contingency which is mutually agreed percentage.
- Once the Program/Schematic Design is confirmed the floor plan is locked.
- Once Design Development Documents are approved, the design is locked. End User participation in the Plan Check/Permitting process is mandatory for product selections and color selection. All submittals are to be approved during the design/plan check/permitting process.
- Requires multiple permits being issued as shown above.
- Each phase of design/plan check/permitting will take 8 weeks. This is a collaborative approach. Meaning plan check will be continuous with the progression of the design. This will require at a minimum face to face weekly meetings, and daily video conference calls with the use of drop box and blue beam.
- Design/Plan Check/Permitting be concurrent as shown above. Any delays in permitting will result in delays to the construction.
- Construction will begin prior to 100% permits being issued. Delays in permitting that delay the project will be subject to additional costs.
- TCC recommends the use of 3rd party plan checkers/plan review.
- TCC recommends the use of 3rd party inspectors. Building this fast will require continuous full time inspectors. 24-48 hour advance notice will not work in such a remote location.
- TCC to identify long lead items. County of Riverside to approve the release of critical long lead items prior to the permits being approved. A mutually acceptable dollar amount will be agreed to and authorized to cover the risk of pre-order materials prior to permitting. TCC recommends 500K per station.
- In order for this schedule to work, we need all stake holders to buy into the schedule, support of their role, accountability. It is highly recommended this schedule and required roles be reviewed with the executives office and obtain their buy-in and approve.
- The intent of the programming/schematic confirmation is to develop a prototype floor plan that can be used for the future fire stations and also can be grown to accommodate more staff and trucks. It is agreed we are taking our time upfront to get it right for the future stations.