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

ITEM: 15.1
(ID # 28396)
MEETING DATE:
Monday, September 22, 2025

FROM : DEPARTMENT OF WASTE RESOURCES

SUBJECT: DEPARTMENT OF WASTE RESOURCES: Approve the Professional Service Agreement with RTMEC, LP for Structural, Electrical, and Landscape Design Services for the French Valley Household Hazardous Waste Collection Facility for one (1) year; District 3. [Total Cost $142,030 - Up to $14,203 in additional compensation, Department of Waste Resources Enterprise Funds 100%] [CEQA - Nothing Further Required]

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the Professional Service Agreement with RTMEC, LP for structural, electrical, and landscape design services for the French Valley Household Hazardous Waste Collection Facility for a total aggregate amount of $142,030 up to $14,203 in additional compensation, one (1) year through August 26, 2026, and authorize the Chair of the Board to sign the Agreement on behalf of the County;

2. Authorize the Purchasing Agent, in accordance with Ordinance No. 459, based on the availability of fiscal funding and as approved as to form by County Counsel, to (a) sign amendments that modify the scope of services within the intent of the Agreement, and (b) sign amendments to the compensation provisions that do not exceed a total of $14,203; and

3. Authorize the Purchasing Agent, based on the availability of fiscal funding, to issue purchase orders to RTMEC, LP for the purchase of services within the approved compensation amount consistent with the Agreement.

ACTION:Policy

Andrew Cortez 8/13/2025

MINUTES OF THE BOARD OF SUPERVISORS

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

Ayes:	Medina, Spiegel, Washington, Perez and Gutierrez
Nays:	None
Absent:	None
Date:	September 22, 2025
xc:	Waste, Purchasing

Kimberly A. Rector
Clerk of the Board
By: _____ Deputy

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	$ 142,030	$ 0	$ 156,233	$ 0
NET COUNTY COST	$ 0	$ 0	$ 0	$ 0
SOURCE OF FUNDS: Department of Waste Resources Enterprise Funds 100%			**Budget Adjustment:** No	
			For Fiscal Year: 25/26	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

The Department of Waste Resources (DWR) is finalizing the design for a new Household Hazardous Waste Collection Facility (HHWCF) in the unincorporated community of French Valley. The 1.7-acre vacant project site, owned by the County of Riverside and managed by the Transportation and Land Management Agency's Aviation Division (TLMA), is being developed pursuant to a Memorandum of Understanding (MOU) established between DWR and TLMA in 2021. Under this MOU, Aviation is responsible for managing the underlying real property/site itself, as it is part of the County-owned French Valley Airport and falls under Aviation's purview for airport-related land assets. Waste Resources is responsible for managing the development, construction, operations, maintenance, and overall use of the HHWCF on that site, including obtaining permits, handling hazardous waste, staffing, cleanup, and compliance with relevant laws.

The HHWCF will provide the community with a permanent location for the safe disposal of household hazardous waste and other qualifying hazardous materials. It will serve both residents and qualifying Very Small Quantity Generators (VSQG), as defined in the California Health and Safety Code section 25218.1 and title 40, Code of Federal Regulations, part 260, Section 260.10.

Additionally, the HHWCF will operate as a Conditionally Exempt Small Quantity Generator (CESQG) Collection Facility, accepting hazardous waste from entities that generate 100 kilograms or less per month of hazardous waste, or 1 kilogram or less per month of acutely hazardous waste. All collected waste will be securely stored on-site in compliance with applicable local, state, and federal regulations.

The proposed HHWCF includes construction of a slab-on-grade reinforced concrete pad, premanufactured office building, and reuse store conex box; all sheltered under a steel-framed canopy. Site infrastructure will feature electrical systems, access roads, drought-tolerant landscaping, and stormwater drainage improvements.

Prev. Agn. Ref.: M.O. 12.3 of 6/21/16 (approved EA No. HHW 2015-01)

California Environmental Quality Act (CEQA) Findings

On June 21, 2016, the Board adopted a Mitigated Negative Declaration (MND) and Mitigation Monitoring Program (MMP) for the French Valley HHWCF (Project) based on the analysis and findings contained in Environmental Assessment (EA) No. HHW 2015-01, which concluded that with mitigation, the Project would not cause significant environmental impacts. This Form 11 involves the approval of the Professional Services Agreement between the County and RTMEC, LP for design work for the Project. The Project was already evaluated under CEQA in the adopted EA/MND. As determined in the adopted EA/MND, the Project would not cause significant environmental impacts; as such, nothing further is required under CEQA.

The architectural and engineering design services will incorporate LEED (Leadership in Energy and Environmental Design) certification, a globally recognized green rating system for buildings that promotes environmentally sustainable, efficient, and cost-saving designs. The designs will incorporate Energy Management System Plans for energy efficiency, water-saving and/or compatibility with renewable energy sources.

Impact on Residents and Businesses

Residents have expressed the need for expanded household hazardous waste (HHW) collection services in the French Valley area. Construction of a permanent HHW collection facility will meet this need by increasing service availability, resulting in a positive impact on both residents and small businesses.

Additional Fiscal Information

Budget for this work will be provided by DWR from Fund 40200, Department ID – 4500100000.

Contract History and Price Reasonableness

On December 30, 2024, Purchasing and Fleet Services (Purchasing) on behalf of the DWR released Request for Proposal (RFP) WMARC-467 for the structural, electrical, and landscape design services for the French Valley HHW Collection Facility. The RFP was advertised publicly with notifications sent to over seventy (70) potential proposers and was advertised on the Purchasing website as well as PublicPurchase.com. A total of two (2) proposals were submitted in response to the RFP.

The proposals were reviewed by an evaluation team consisting of personnel from DWR and Purchasing. Both proposals were reviewed and scored by an evaluation team based on the proposer's overall responsiveness to those requirements of the scope of service, overall cost to the County, experience and ability, references, and financial status. A comprehensive analysis was performed by County Purchasing and DWR.

After diligent review of the submitted proposals and best and final offers, the DWR and Purchasing recommend that the award be given to RTMEC, LP as the lowest, most responsive and responsible proposer meeting the County's needs. The proposal's best and final offers

ranged from $142,030 to $310,980 by factoring pricing for the required design services, as-needed design services and as-needed support during construction.

ATTACHMENT A - PROFESSIONAL SERVICE AGREEMENT FOR FRENCH VALLEY ARCHITECTURAL AND ENGINEERING DESIGN SERVICES - AATF

Stacy Orton, Assistant Director of Purchasing 9/11/2025

Crystal Carrillo, Senior Management Analyst 9/15/2025

Aaron Gettis, Chief of Deputy County Counsel 9/11/2025

MEMORANDUM

RIVERSIDE COUNTY COUNSEL

CONFIDENTIAL
ATTORNEY-CLIENT PRIVILEGE

DATE: September 15, 2025

TO: Clerk of the Board of Supervisors

FROM: Lisa Sanchez, Deputy County Counsel

15.1

Re : Minute Traq ID#: 28396

BOS Hearing : September 22, 2025

Department : Waste Resources

Documents : (1) Professional Service Agreement for Structural, Electrical, and Landscape Design for the French Valley Household Hazardous Waste Collection Facility between County of Riverside and RTMEC, LP

Please be advised that the attached Change Order has not been AATF. The Office of the County Counsel will AATF the Change Order once the Board of Supervisors approves it and will deliver the AATF document to the Clerk of the Board.

If you have any questions or concerns regarding this matter, please do not hesitate to contact my assistant, Lina Vargas, directly at (951) 955-6339 or lvargas@rivco.org.

Thank you,

Lisa Sanchez

Lisa Sanchez
Deputy County Counsel

Dated: September 15, 2025

RECEIVED
CLERK/BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE
2025 SEP 19 PM 4:38

PROFESSIONAL SERVICE AGREEMENT

for

STRUCTURAL, ELECTRICAL, AND LANDSCAPE DESIGN SERVICES FOR THE FRENCH VALLEY HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY

between

COUNTY OF RIVERSIDE

and

RTMEC, LP

SEP 2 2 2025 15.1

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This Agreement is made and entered into this____ day of_____, 2025, by and between RTMEC, LP, an Delaware limited partnership (herein referred to as "CONSULTANT"), and the COUNTY OF RIVERSIDE, a political subdivision of the State of California, (herein referred to as "COUNTY"). The parties agree as follows:

1. Description of Services

1.1 CONSULTANT shall provide all services as outlined and specified in Exhibit A, Scope of Services and at the prices stated in Exhibit B, Payment Provisions to the Agreement.

1.2 CONSULTANT represents that it has the skills, experience, and knowledge necessary to perform under this Agreement and the COUNTY relies upon this representation. CONSULTANT shall perform to the satisfaction of the COUNTY and in conformance to and consistent with the highest standards of firms/professionals in the same discipline in the State of California.

1.3 CONSULTANT affirms that it is fully apprised of all of the work to be performed under this Agreement; and the CONSULTANT agrees it can properly perform this work at the prices stated in Exhibit B. CONSULTANT is not to perform services or provide products outside of the Agreement.

1.4 Acceptance by the COUNTY of the CONSULTANT's performance under this Agreement does not operate as a release of CONSULTANT's responsibility for full compliance with the terms of this Agreement.

2. Period of Performance

2.1 This Agreement shall be effective upon signature of this Agreement by both parties and continues in effect through August 26, 2026, unless terminated earlier. CONSULTANT shall commence performance upon signature of this Agreement by both parties and shall diligently and continuously perform thereafter. The Riverside County Board of Supervisors is the only authority that may obligate the County for a non-cancelable multi-year agreement.

3. Compensation

3.1 The COUNTY shall pay the CONSULTANT for services performed, products provided and expenses incurred in accordance with the terms of Exhibit B, Payment Provisions. Maximum payments by COUNTY to CONSULTANT shall not exceed a total aggregate amount of $142,030.00 including all expenses. The COUNTY is not responsible for any fees or costs incurred above or beyond the contracted amount and shall have no obligation to purchase any specified amount of services or products. Unless otherwise specifically stated in Exhibit B, COUNTY shall not be responsible for payment of any of CONSULTANT's expenses related to this Agreement.

3.2 No price increases will be permitted during the first year of this Agreement. All price decreases (for example, if CONSULTANT offers lower prices to another governmental entity) will automatically be extended to the COUNTY. The COUNTY requires written proof satisfactory to COUNTY of cost increases prior to any approved price adjustment. After the first year of the award, a minimum of 30-days advance notice in writing is required to be considered and approved by COUNTY. No retroactive price adjustments will be considered. Any price increases must be stated in a written amendment to this Agreement. The net dollar amount of profit will remain firm during the period of the Agreement. Annual increases shall not exceed the percentage change in Consumer Price Index- All Consumers, All Items - Riverside, San Bernardino and Ontario for the twelve (12) month period January through January immediately preceding the adjustment and be subject to satisfactory performance review by the COUNTY and approved (if needed) for budget funding by the Board of Supervisors.

3.3 CONSULTANT shall be paid only in accordance with an invoice submitted to COUNTY by CONSULTANT within fifteen (15) days from the last day of each calendar month, and COUNTY shall pay the invoice within thirty (30) working days from the date of receipt of the invoice. Payment shall be made to CONSULTANT only after services have been rendered or delivery of materials or products, and acceptance has been made by COUNTY. For this Agreement, send the original invoices to:

RIVERSIDE COUNTY DEPARTMENT OF WASTE RESOURCES
ATTN: ACCOUNTS RECEIVABLE
14310 FREDERICK STREET
MORENO VALLEY, CA 92553

a) Each invoice shall contain a minimum of the following information: invoice number and date; remittance address; bill-to and ship-to addresses of ordering department/division; Agreement number WMARC-90607-001-08/26; quantities; item descriptions, unit prices, extensions, sales/use tax if applicable, and an invoice total.

b) Invoices shall be rendered monthly in arrears.

3.4 The COUNTY obligation for payment of this Agreement beyond the current fiscal year end is contingent upon and limited by the availability of COUNTY funding from which payment can be made, and invoices shall be rendered "monthly" in arrears. In the State of California, government agencies are not allowed to pay excess interest and late charges, per Government Code section 926.10. No legal liability on the part of the COUNTY shall arise for payment beyond June 30 of each calendar year unless funds are made available for such payment. In the event that such funds are not forthcoming for any reason, COUNTY shall

immediately notify CONSULTANT in writing; and this Agreement shall be deemed terminated, have no further force, and effect.

4. Alteration or Changes to the Agreement

4.1 The Board of Supervisors and the COUNTY Purchasing Agent and/or designee are the only authorized COUNTY representatives who may at any time, by written order, alter this Agreement. If any such alteration causes an increase or decrease in the cost of, or the time required for the performance under this Agreement, an equitable adjustment shall be made in the Agreement price or delivery schedule, or both, and the Agreement shall be modified by written amendment accordingly.

4.2 Any claim by the CONSULTANT for additional payment related to this Agreement shall be made in writing by the CONSULTANT within 30 days of when the CONSULTANT has or should have notice of any actual or claimed change in the work, which results in additional and unanticipated cost to the CONSULTANT. If the COUNTY Purchasing Agent decides that the facts provide sufficient justification, he may authorize additional payment to the CONSULTANT pursuant to the claim. Nothing in this section shall excuse the CONSULTANT from proceeding with performance of the Agreement even if there has been a change.

5. Termination

5.1. COUNTY may terminate this Agreement without cause upon thirty (30) days written notice served upon the CONSULTANT stating the extent and effective date of termination.

5.2 COUNTY may, upon five (5) days written notice terminate this Agreement for CONSULTANT's default, if CONSULTANT refuses or fails to comply with the terms of this Agreement or fails to make progress that may endanger performance and does not immediately cure such failure. In the event of such termination, the COUNTY may proceed with the work in any manner deemed proper by COUNTY.

5.3 After receipt of the notice of termination, CONSULTANT shall:

(a) Stop all work under this Agreement on the date specified in the notice of termination; and

(b) Transfer to COUNTY and deliver in the manner as directed by COUNTY any materials, reports or other products, which, if the Agreement had been completed or continued, would have been required to be furnished to COUNTY.

5.4 After termination, COUNTY shall make payment only for CONSULTANT's performance up to the date of termination in accordance with this Agreement.

5.5 CONSULTANT's rights under this Agreement shall terminate (except for fees accrued prior to the date of termination) upon dishonesty or a willful or material breach of this Agreement by CONSULTANT; or in the event of CONSULTANT's unwillingness or inability for any reason whatsoever to perform the terms of this Agreement. In such event, CONSULTANT shall not be entitled to any further compensation under this Agreement.

5.6 If the Agreement is federally or State funded, CONSULTANT cannot be debarred from the System for Award Management (SAM). CONSULTANT must notify the COUNTY immediately of a debarment. Reference: System for Award Management (SAM) at https://www.sam.gov for Central CONSULTANT Registry (CCR), Federal Agency Registration (Fedreg), Online Representations and Certifications Application, and Excluded Parties List System (EPLS)). Excluded Parties Listing System (EPLS) (http://www.epls.gov) (Executive Order 12549, 7 CFR Part 3017, 45 CFR Part 76, and 44 CFR Part 17). The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS.

5.7 The rights and remedies of COUNTY provided in this section shall not be exclusive and are in addition to any other rights and remedies provided by law or this Agreement.

6. Ownership/Use of Contract Materials and Products

The CONSULTANT agrees that all materials, reports or products in any form, including electronic, created by CONSULTANT for which CONSULTANT has been compensated by COUNTY pursuant to this Agreement shall be the sole property of the COUNTY. The material, reports or products may be used by the COUNTY for any purpose that the COUNTY deems to be appropriate, including, but not limit to, duplication and/or distribution within the COUNTY or to third parties. CONSULTANT agrees not to release or circulate in whole or part such materials, reports, or products without prior written authorization of the COUNTY.

7. Conduct of CONSULTANT

7.1 The CONSULTANT covenants that it presently has no interest, including, but not limited to, other projects or contracts, and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with CONSULTANT's performance under this Agreement. The CONSULTANT further covenants that no person or subconsultant having any such interest shall be employed or retained by CONSULTANT under this Agreement. The CONSULTANT agrees to inform the COUNTY of all the CONSULTANT's interests, if any, which are or may be perceived as incompatible with the COUNTY's interests.

7.2 The CONSULTANT shall not, under circumstances which could be interpreted as an attempt to influence the recipient in the conduct of his/her duties, accept any gratuity or special favor from individuals or firms with whom the CONSULTANT is doing business or proposing to do business, in accomplishing the work under this Agreement.

7.3 The CONSULTANT or its employees shall not offer gifts, gratuity, favors, and entertainment directly or indirectly to COUNTY employees.

8. Inspection of Service; Quality Control/Assurance

8.1 All performance (which includes services, workmanship, materials, supplies and equipment furnished or utilized in the performance of this Agreement) shall be subject to inspection and test by the COUNTY or other regulatory agencies at all times. The CONSULTANT shall provide adequate cooperation to any inspector or other COUNTY representative to permit him/her to determine the CONSULTANT's conformity with the terms of this Agreement. If any services performed or products provided by CONSULTANT are not in conformance with the terms of this Agreement, the COUNTY shall have the right to require the CONSULTANT to perform the services or provide the products in conformance with the terms of the Agreement at no additional cost to the COUNTY. When the services to be performed or the products to be provided are of such nature that the difference cannot be corrected; the COUNTY shall have the right to: (1) require the CONSULTANT immediately to take all necessary steps to ensure future performance in conformity with the terms of the Agreement; and/or (2) reduce the Agreement price to reflect the reduced value of the services performed or products provided. The COUNTY may also terminate this Agreement for default and charge to CONSULTANT any costs incurred by the COUNTY because of the CONSULTANT's failure to perform.

8.2 CONSULTANT shall establish adequate procedures for self-monitoring and quality control and assurance to ensure proper performance under this Agreement; and shall permit a COUNTY representative or other regulatory official to monitor, assess, or evaluate CONSULTANT's performance under this Agreement at any time, upon reasonable notice to the CONSULTANT.

9. Independent CONSULTANT/Employment Eligibility

9.1 The CONSULTANT is, for purposes relating to this Agreement, an independent CONSULTANT and shall not be deemed an employee of the COUNTY. It is expressly understood and agreed that the CONSULTANT (including its employees, agents, and subconsultants) shall in no event be entitled to any benefits to which COUNTY employees are entitled, including but not limited to overtime, any retirement benefits, worker's compensation benefits, and injury leave or other leave benefits. There shall be no employer-

employee relationship between the parties; and CONSULTANT shall hold COUNTY harmless from any and all claims that may be made against COUNTY based upon any contention by a third party that an employer-employee relationship exists by reason of this Agreement. It is further understood and agreed by the parties that CONSULTANT in the performance of this Agreement is subject to the control or direction of COUNTY merely as to the results to be accomplished and not as to the means and methods for accomplishing the results.

9.2 CONSULTANT warrants that it shall make its best effort to fully comply with all federal and state statutes and regulations regarding the employment of aliens and others and to ensure that employees performing work under this Agreement meet the citizenship or alien status requirement set forth in federal statutes and regulations. CONSULTANT shall obtain, from all employees performing work hereunder, all verification and other documentation of employment eligibility status required by federal or state statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986, 8 U.S.C. §1324 et seq., as they currently exist and as they may be hereafter amended. CONSULTANT shall retain all such documentation for all covered employees, for the period prescribed by the law.

9.3 Ineligible Person shall be any individual or entity who: Is currently excluded, suspended, debarred or otherwise ineligible to participate in the federal health care programs; or has been convicted of a criminal offense related to the provision of health care items or services and has not been reinstated in the federal health care programs after a period of exclusion, suspension, debarment, or ineligibility.

9.4 CONSULTANT shall screen prospective Covered Individuals prior to hire or engagement. CONSULTANT shall not hire or engage any Ineligible Person to provide services directly relative to this Agreement. CONSULTANT shall screen all current Covered Individuals within sixty (60) days of execution of this Agreement to ensure that they have not become Ineligible Persons unless CONSULTANT has performed such screening on same Covered Individuals under a separate agreement with COUNTY within the past six (6) months. Covered Individuals shall be required to disclose to CONSULTANT immediately any debarment, exclusion or other event that makes the Covered Individual an Ineligible Person. CONSULTANT shall notify COUNTY within five (5) business days after it becomes aware if a Covered Individual providing services directly relative to this Agreement becomes debarred, excluded or otherwise becomes an Ineligible Person.

9.5 CONSULTANT acknowledges that Ineligible Persons are precluded from providing federal and state funded health care services by contract with COUNTY in the event that they are currently sanctioned or excluded by a federal or state law enforcement regulatory or licensing agency. If CONSULTANT becomes aware that a Covered Individual has become an Ineligible Person, CONSULTANT

shall remove such individual from responsibility for, or involvement with, COUNTY business operations related to this Agreement.

9.6 CONSULTANT shall notify COUNTY within five (5) business days if a Covered Individual or entity is currently excluded, suspended or debarred, or is identified as such after being sanction screened. Such individual or entity shall be promptly removed from participating in any activity associated with this Agreement.

10. Subcontract for Work or Services

No contract shall be made by the CONSULTANT with any other party for furnishing any of the work or services under this Agreement without the prior written approval of the COUNTY; but this provision shall not require the approval of contracts of employment between the CONSULTANT and personnel assigned under this Agreement, or for parties named in the proposal and agreed to under this Agreement.

11. Disputes

11.1 The parties shall attempt to resolve any disputes amicably at the working level. If that is not successful, the dispute shall be referred to the senior management of the parties. Any dispute relating to this Agreement, which is not resolved by the parties, shall be decided by the COUNTY's Purchasing Department's Compliance Contract Officer who shall furnish the decision in writing. The decision of the COUNTY's Compliance Contract Officer shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary, or so grossly erroneous to imply bad faith. The CONSULTANT shall proceed diligently with the performance of this Agreement pending the resolution of a dispute.

11.2 Prior to the filing of any legal action related to this Agreement, the parties shall be obligated to attend a mediation session in Riverside County before a neutral third party mediator. A second mediation session shall be required if the first session is not successful. The parties shall share the cost of the mediations.

12. Licensing and Permits

CONSULTANT shall comply with all State or other licensing requirements, including but not limited to the provisions of Chapter 9 of Division 3 of the Business and Professions Code. All licensing requirements shall be met at the time proposals are submitted to the COUNTY. CONSULTANT warrants that it has all necessary permits, approvals, certificates, waivers and exemptions necessary for performance of this Agreement as required by the laws and regulations of the United States, the State of California, the County of Riverside and all other governmental agencies with jurisdiction, and shall maintain these throughout the term of this Agreement.

13. Use By Other Political Entities

The CONSULTANT agrees to extend the same pricing, terms, and conditions as stated in this Agreement to each and every political entity, special district, and related non-profit. It is understood that other entities shall make purchases in their own name, make direct payment, and be liable directly to the CONSULTANT; and COUNTY shall in no way be responsible to CONSULTANT for other entities' purchases.

14. Non-Discrimination

CONSULTANT shall not be discriminate in the provision of services, allocation of benefits, accommodation in facilities, or employment of personnel on the basis of ethnic group identification, race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status or sex in the performance of this Agreement; and, to the extent they shall be found to be applicable hereto, shall comply with the provisions of the California Fair Employment and Housing Act (Gov. Code 12900 et. seq), the Federal Civil Rights Act of 1964 (P.L. 88-352), the Americans with Disabilities Act of 1990 (42 U.S.C. S1210 et seq.) and all other applicable laws or regulations.

15. Records and Documents

CONSULTANT shall make available, upon written request by any duly authorized Federal, State, or COUNTY agency, a copy of this Agreement and such books, documents and records as are necessary to certify the nature and extent of the CONSULTANT's costs related to this Agreement. All such books, documents and records shall be maintained by CONSULTANT for at least five years following termination of this Agreement and be available for audit by the COUNTY. CONSULTANT shall provide to the COUNTY reports and information related to this Agreement as requested by COUNTY.

16. Confidentiality

16.1 The CONSULTANT shall not use for personal gain or make other improper use of privileged or confidential information which is acquired in connection with this Agreement. The term "privileged or confidential information" includes but is not limited to: unpublished or sensitive technological or scientific information; medical, personnel, or security records; anticipated material requirements or pricing/purchasing actions; COUNTY information or data which is not subject to public disclosure; COUNTY operational procedures; and knowledge of selection of CONSULTANTs, subconsultants or suppliers in advance of official announcement.

16.2 The CONSULTANT shall protect from unauthorized disclosure names and other identifying information concerning persons receiving services pursuant to this Agreement, except for general statistical

information not identifying any person. The CONSULTANT shall not use such information for any purpose other than carrying out the CONSULTANT's obligations under this Agreement. The CONSULTANT shall promptly transmit to the COUNTY all third party requests for disclosure of such information. The CONSULTANT shall not disclose, except as otherwise specifically permitted by this Agreement or authorized in advance in writing by the COUNTY, any such information to anyone other than the COUNTY. For purposes of this paragraph, identity shall include, but not be limited to, name, identifying number, symbol, or other identifying particulars assigned to the individual, such as finger or voice print or a photograph.

17. Administration/Contract Liaison

The COUNTY Purchasing Agent, or designee, shall administer this Agreement on behalf of the COUNTY. The Purchasing Department is to serve as the liaison with CONSULTANT in connection with this Agreement.

18. Notices

All correspondence and notices required or contemplated by this Agreement shall be delivered to the respective parties at the addresses set forth below and are deemed submitted two days after their deposit in the United States mail, postage prepaid:

COUNTY OF RIVERSIDE	**CONSULTANT**
RIVERSIDE COUNTY WASTE RESOURCES	RTMEC, LP
14310 FREDERICK ST	1 ADA, SUITE 100
MORENO VALLEY, CA 92553	IRVINE, CA 92618
PCS/BUYER	PRINCIPAL
WastePurchasing@rivco.org	
951-486-3200	

19. Force Majeure

If either party is unable to comply with any provision of this Agreement due to causes beyond its reasonable control, and which could not have been reasonably anticipated, such as acts of God, acts of war, civil disorders, or other similar acts, such party shall not be held liable for such failure to comply.

20. EDD Reporting Requirements

In order to comply with child support enforcement requirements of the State of California, the COUNTY may be required to submit a Report of Independent CONSULTANT(s) form **DE 542** to the Employment Development Department. The CONSULTANT agrees to furnish the required data and certifications to the COUNTY within 10 days of notification of award of Agreement when required by the

EDD. This data will be transmitted to governmental agencies charged with the establishment and enforcement of child support orders. Failure of the CONSULTANT to timely submit the data and/or certificates required may result in the contract being awarded to another CONSULTANT. In the event a contract has been issued, failure of the CONSULTANT to comply with all federal and state reporting requirements for child support enforcement or to comply with all lawfully served Wage and Earnings Assignments Orders and Notices of Assignment shall constitute a material breach of Agreement. If CONSULTANT has any questions concerning this reporting requirement, please call (916) 657-0529. CONSULTANT should also contact its local Employment Tax Customer Service Office listed in the telephone directory in the State Government section under "Employment Development Department" or access their Internet site at www.edd.ca.gov.

21. Hold Harmless/Indemnification

21.1 CONSULTANT shall indemnify and hold harmless the County of Riverside, its Agencies, Districts, Special Districts and Departments, their respective directors, officers, Board of Supervisors, elected and appointed officials, employees, agents and representatives (individually and collectively hereinafter referred to as Indemnitees) from any liability, action, claim or damage whatsoever, based or asserted upon any services of CONSULTANT, its officers, employees, subconsultants, agents or representatives arising out of or in any way relating to this Agreement, including but not limited to property damage, bodily injury, or death or any other element of any kind or nature. CONSULTANT shall defend the Indemnitees at its sole expense including all costs and fees (including, but not limited, to attorney fees, cost of investigation, defense and settlements or awards) in any claim or action based upon such acts, omissions or services.

21.2 With respect to any action or claim subject to indemnification herein by CONSULTANT, CONSULTANT shall, at their sole cost, have the right to use counsel of their own choice and shall have the right to adjust, settle, or compromise any such action or claim without the prior consent of COUNTY; provided, however, that any such adjustment, settlement or compromise in no manner whatsoever limits or circumscribes CONSULTANT indemnification to Indemnitees as set forth herein.

21.3 CONSULTANT'S obligation hereunder shall be satisfied when CONSULTANT has provided to COUNTY the appropriate form of dismissal relieving COUNTY from any liability for the action or claim involved.

21.4 The specified insurance limits required in this Agreement shall in no way limit or circumscribe CONSULTANT'S obligations to indemnify and hold harmless the Indemnitees herein from third party claims.

21.5 Indemnity for Design Professional Services. To the fullest extent permitted by Applicable Law, CONSULTANT agrees to defend (through legal counsel reasonably acceptable to County), indemnify

and hold harmless the Indemnitees, and each of them, against any and all Losses that arise out of, pertain to, or relate to, any negligence, recklessness or willful misconduct constituting professional negligence on the part of CONSULTANT or its Subconsultants, or their respective employees, agents, representatives, or independent contractors. The Indemnitees shall be entitled to the defense, and indemnification provided for hereunder regardless of whether the Loss is, in part, caused or contributed to by the acts or omissions of an Indemnitee or any other person or entity; provided, however, that nothing contained herein shall be construed as obligating CONSULTANT to indemnify and hold harmless any Indemnitee to the extent not required under the provisions of this section. CONSULTANT shall defend and pay, all costs and fees, including but not limited to attorney fees, cost of investigation, and defense, in any loss, suits, claims, demands, actions, or proceedings to the extent and in proportion to the percentage, such costs and fees arise out of, pertain to, or relate to the negligence, recklessness or willful misconduct of CONSULTANT arising out of or from the performance of professional design services under this Agreement. The duty to defend applies to any alleged or actual negligence, recklessness, willful misconduct of CONSULTANT. The cost for defense shall apply whether or not CONSULTANT is a party to the lawsuit, and shall apply whether or not CONSULTANT is directly liable to the plaintiffs in the lawsuit. The duty to defend applies even if Indemnitees are alleged or found to be actively negligent, but only in proportion to the percentage of fault or negligence of CONSULTANT.

Without affecting the rights of County under any other provision of this Agreement, CONSULTANT shall not be required to indemnify or hold harmless or provide defense or defense costs to an Indemnitee for a Loss due to that Indemnitee's negligence, recklessness or willful misconduct; provided, however, that such negligence, recklessness or willful misconduct has been determined by agreement of CONSULTANT and Indemnitee or has been adjudged by the findings of a court of competent jurisdiction.

CONSULTANT agrees to obtain or cause to be obtained executed defense and indemnity agreements with provisions identical to those set forth in this section from each and every Subconsultant, of every Tier.

CONSULTANT's indemnification obligations under this Agreement shall not be limited by the amount or type of damages, compensation or benefits payable under any policy of insurance, workers' compensation acts, disability benefit acts or other employee benefit acts.

The Indemnitees shall be entitled to recover their attorneys' fees, costs and expert and consultant costs in pursuing or enforcing their right to defense and/or indemnification under this Agreement.

22. <u>Insurance</u>

22.1 Without limiting or diminishing the CONSULTANT'S obligation to indemnify or hold the COUNTY harmless, CONSULTANT shall procure and maintain or cause to be maintained, at its sole cost and expense, the following insurance coverage's during the term of this Agreement. As respects to the insurance section only, the COUNTY herein refers to the County of Riverside, its Agencies, Districts, Special Districts, and Departments, their respective directors, officers, Board of Supervisors, employees, elected or appointed officials, agents, or representatives as Additional Insureds.

A. Workers' Compensation:

If the CONSULTANT has employees as defined by the State of California, the CONSULTANT shall maintain statutory Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than $1,000,000 per person per accident. The policy shall be endorsed to waive subrogation in favor of The County of Riverside.

B. Commercial General Liability:

Commercial General Liability insurance coverage, including but not limited to, premises liability, unmodified contractual liability, products and completed operations liability, personal and advertising injury, and cross liability coverage, covering claims which may arise from or out of CONSULTANT'S performance of its obligations hereunder. Policy shall name the COUNTY as Additional Insured. Policy's limit of liability shall not be less than $2,000,000 per occurrence combined single limit. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit.

C. Vehicle Liability:

If vehicles or mobile equipment is used in the performance of the obligations under this Agreement, then CONSULTANT shall maintain liability insurance 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 insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall name the COUNTY as Additional Insureds.

D. Professional Liability

CONSULTANT shall maintain Professional Liability Insurance providing coverage for the CONSULTANT's performance of work included within this Agreement, with a limit of liability of not less than $1,000,000 per occurrence and $2,000,000 annual aggregate. If CONSULTANT's Professional Liability Insurance is written on a claims made basis rather than an occurrence basis, such insurance shall continue

through the term of this Agreement and CONSULTANT shall purchase at his sole expense either 1) an Extended Reporting Endorsement (also, known as Tail Coverage); or 2) Prior Dates Coverage from new insurer with a retroactive date back to the date of, or prior to, the inception of this Agreement; or 3) demonstrate through Certificates of Insurance that CONSULTANT has Maintained continuous coverage with the same or original insurer. Coverage provided under items; 1), 2), or 3) will continue as long as the law allows.

E. General Insurance Provisions - All lines:

1) Any insurance carrier providing insurance coverage hereunder 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. If the County's Risk Manager waives a requirement for a particular insurer such waiver is only valid for that specific insurer and only for one policy term.

2) The CONSULTANT must declare its insurance self-insured retention for each coverage required herein. If any such self-insured retention exceeds $500,000 per occurrence each such retention shall have the prior written consent of the County Risk Manager before the commencement of operations under this Agreement. Upon notification of self-insured retention unacceptable to the COUNTY, and at the election of the County's Risk Manager, CONSULTANT'S carriers shall either; 1) reduce or eliminate such self-insured retention as respects this Agreement with the COUNTY, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses.

3) CONSULTANT shall cause CONSULTANT'S insurance carrier(s) to furnish the County of Riverside with either 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, and 2) if requested to do so orally or in writing by the County Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. Further, said Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that thirty (30) days written notice shall be given to the County of Riverside prior to any material modification, cancellation, expiration or reduction in coverage of such insurance. In the event of a material modification, cancellation, expiration, or reduction in coverage, this Agreement shall terminate forthwith, unless the County of Riverside receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. CONSULTANT shall not commence operations until the COUNTY has been furnished original Certificate (s) of Insurance and certified original

copies of endorsements and if requested, certified original policies of insurance including all endorsements and any and all other attachments as required in this Section. An individual authorized by the insurance carrier shall sign the original endorsements for each policy and the Certificate of Insurance.

4) It is understood and agreed to by the parties hereto that the CONSULTANT'S insurance shall be construed as primary insurance, and the COUNTY'S insurance and/or deductibles and/or self-insured retention's or self-insured programs shall not be construed as contributory.

5) If, during the term of this Agreement or any extension thereof, there is a material change in the scope of services; or, there is a material change in the equipment to be used in the performance of the scope of work; or, the term of this Agreement, including any extensions thereof, exceeds five (5) years; the COUNTY reserves the right to adjust the types of insurance and the monetary limits of liability required under this Agreement, if in the County Risk Manager's reasonable judgment, the amount or type of insurance carried by the CONSULTANT has become inadequate.

6) CONSULTANT shall pass down the insurance obligations contained herein to all tiers of subconsultants working under this Agreement.

7) The insurance requirements contained in this Agreement may be met with a program(s) of self-insurance acceptable to the COUNTY.

8) CONSULTANT 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 this Agreement.

23. General

23.1 CONSULTANT shall not delegate or assign any interest in this Agreement, whether by operation of law or otherwise, without the prior written consent of COUNTY. Any attempt to delegate or assign any interest herein shall be deemed void and of no force or effect.

23.2 Any waiver by COUNTY of any breach of any one or more of the terms of this Agreement shall not be construed to be a waiver of any subsequent or other breach of the same or of any other term of this Agreement. Failure on the part of COUNTY to require exact, full, and complete compliance with any terms of this Agreement shall not be construed as in any manner changing the terms or preventing COUNTY from enforcement of the terms of this Agreement.

23.3 In the event the CONSULTANT receives payment under this Agreement, which is later disallowed by COUNTY for nonconformance with the terms of the Agreement, the CONSULTANT shall promptly refund the disallowed amount to the COUNTY on request; or at its option the COUNTY may offset the amount disallowed from any payment due to the CONSULTANT.

23.4 CONSULTANT shall not provide partial delivery or shipment of services or products unless specifically stated in the Agreement.

23.5 CONSULTANT shall not provide any services or products subject to any chattel mortgage or under a conditional sales contract or other agreement by which an interest is retained by a third party. The CONSULTANT warrants that it has good title to all materials or products used by CONSULTANT or provided to COUNTY pursuant to this Agreement, free from all liens, claims, or encumbrances.

23.6 Nothing in this Agreement shall prohibit the COUNTY from acquiring the same type or equivalent equipment, products, materials or services from other sources, when deemed by the COUNTY to be in its best interest. The COUNTY reserves the right to purchase more or less than the quantities specified in this Agreement.

23.7 The COUNTY agrees to cooperate with the CONSULTANT in the CONSULTANT's performance under this Agreement, including, if stated in the Agreement, providing the CONSULTANT with reasonable facilities and timely access to COUNTY data, information, and personnel.

23.8 CONSULTANT shall comply with all applicable Federal, State and local laws and regulations. CONSULTANT will comply with all applicable COUNTY policies and procedures. In the event that there is a conflict between the various laws or regulations that may apply, the CONSULTANT shall comply with the more restrictive law or regulation.

23.9 CONSULTANT shall comply with all air pollution control, water pollution, safety and health ordinances, statutes, or regulations, which apply to performance under this Agreement.

23.10 CONSULTANT shall comply with all requirements of the Occupational Safety and Health Administration (OSHA) standards and codes as set forth by the U.S. Department of Labor and the State of California (Cal/OSHA).

23.11 This Agreement shall be governed by the laws of the State of California. Any legal action related to the performance or interpretation of this Agreement shall be filed only in the Superior Court of the State of California located in Riverside, California, and the parties waive any provision of law providing for a change of venue to another location. In the event any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

23.12 This Agreement, including any attachments or exhibits, constitutes the entire Agreement of the parties with respect to its subject matter and supersedes all prior and contemporaneous representations, proposals, discussions and communications, whether oral or in writing. This Agreement may be changed or modified only by a written amendment signed by authorized representatives of both parties.

23.13 This Agreement may be executed in any number of counterparts, each of which will be an original, but all of which together will constitute one instrument. Each party to this Agreement agrees to the use of electronic signatures, such as digital signatures that meet the requirements of the California Uniform Electronic Transactions Act ("CUETA") (Cal. Civ. Code §§ 1633.1 to 1633.17), for executing this Agreement. The parties further agree that the electronic signatures of the parties included in this Agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means an electronic sound, symbol, or process attached to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record pursuant to the CUETA as amended from time to time. The CUETA authorizes use of an electronic signature for transactions and contracts among parties in California, including a government agency. Digital signature means an electronic identifier, created by computer, intended by the party using it to have the same force and effect as the use of a manual signature, and shall be reasonably relied upon by the parties. For purposes of this section, a digital signature is a type of "electronic signature" as defined in subdivision (i) of Section 1633.2 of the Civil Code.

[Signatures on Following Page]

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized representatives to execute this Agreement.

COUNTY OF RIVERSIDE, a political subdivision of the State of California

By: _____
V. Manuel Perez, Chair
Board of Supervisors

Dated: SEP 2 2 2025

RTMEC, LP, a Delaware limited partnership

By: _____
Josh Randall
Principal

Dated: 8/14/25

ATTEST:
Kimberly Rector
Clerk of the Board

By: _____
Deputy

Dated: SEP 2 2 2025

APPROVED AS TO FORM:
Minh C. Tran
County Counsel

By: _____
Lisa Sanchez
Deputy County Counsel

Dated: 8/25/2025

SEP 2 2 2025 15.1

EXHIBIT "A"

SCOPE OF WORK

1.0 PROJECT TASKS

Task 1 – Review Existing Geotechnical Data, Conduct any Necessary Additional Field Investigation, and Prepare a Geotechnical Letter Report

The CONSULTANT shall provide the following geotechnical services in accordance with the most recent design standards and building codes. The CONSULTANT has identified John R. Byerly, Inc. as their subconsultant to perform the necessary geotechnical services for this project. The services shall include, but are not limited to the following:

- Review the geotechnical letter report prepared for the French Valley Household Hazardous Waste Collection Facility (HHWCF), Attachment C.
- Perform a geotechnical field investigation, if necessary, to verify the applicability of the geotechnical report within Attachment C for the project.
- Perform any necessary geotechnical verification laboratory testing, which may include but are not limited to the following: moisture content, dry density, sieve analysis, plasticity index, expansion index, corrosivity, and compaction.
- Prepare a geotechnical letter report for submittal to COUNTY for review and submittal to building permitting agency. The letter report shall include: a summary of the geotechnical field investigation and laboratory test results and recommendations for the proposed onsite structures. The geotechnical letter report shall be stamped and signed by a California Registered Geotechnical Engineer.

Task 2 – Design and Prepare Construction Drawings for a Canopy System, including Permanent Metal Roof Structure, Continuous Footings and Slab-on-Grade

The Consultant shall evaluate and propose structural design options for the canopy footings, the facility's slab-on-grade with concrete sealant, foundation, and permanent metal roof structure. Structure shall be designed to withstand design earthquake, and wind loads in accordance with county code and ordinances. The final structural design shall be stamped by a California Registered Civil Engineer. The final structure design shall be in compliance with the California Building Code, Title 24. The metal roof canopy structure shall cover a concrete paved slab 60' wide X 132' long and shall be a minimum of 18' high, covering an approximately 7,920 sq ft area, over the concrete pad. This canopy area will include but is not limited to:

- Concrete paved unloading area for residential customers
- Two (2) chemical storage containers
- One (1) supply storage container
- One (1) 500-gallon aboveground storage tank (8.7'L x 3'W x 4'H) for used oil and antifreeze
    - Concrete bollards shall be installed to surround the perimeter of the aboveground storage tank
- One (1) electric forklift and charging station
- Electric outlets on every column (240V)
- Emergency equipment, such as a plumbed shower and eyewash stations, portable fire extinguishers, portable first aid kits and AED, and wind direction indicators

The structural design calculations for the proposed shade structure shall include, but not limited to:

- Complete set of construction drawings (22" x 34") for the proper identification and assembly of all components for erecting the proposed structures
- Column and frame reactions
- Stress analysis
- Deflection analysis
- Foundation loads for each loading case
- Anchor bolt setting plan and base plate details
- Column size and locations
- Roof framing
- Roof panel layout
- Flashing and sheeting details
- Accessory installation details
- Bird deterrent equipment
- Rain gutter and downspout details
- Fastener and connection details

The structural design for footings and slab-on-grade shall include, but not limited to:

- Design calculations
- Reinforcing steel details
- Concrete mix design

- Layer of protection concrete slab with a penetrating concrete sealer
- Above storage tank concrete bollard perimeter design construction drawings

CONSULTANT shall provide COUNTY electronic (PDF and AutoCAD) and two sets of 22x34 plan sheets of the design which include design calculations and construction drawings for the one (1) permanent canopy structure, footings, and one (1) slab-on-grade reinforced concrete pad as shown in Attachment D and Attachment A – Figure 2, and Figure 3. CONSULTANT shall prepare all final documents incorporating all comments from previous reviews. COUNTY assumption is that a total of six (6) iterations/modifications will be completed before final designs are accepted.

Task 3 – Review Structural Engineering Project Submittals and Provide Engineering Support, as needed, during Construction

The CONSULTANT shall review and approve all material submittals, shop drawings and other information related to the construction of the Canopy structure that will be submitted by the Contractor during project construction. Engineering support, if necessary, during construction on a time and material basis at the rates listed in Exhibit B and shall not exceed a total of $10,000. If support is requested by Riverside County Department of Waste Resources staff (RCDWR) during construction, structural engineering services shall include but are not limited to the following:

- Periodic construction observation for the purposes of verifying compliance with the approved project plans and specifications that are related to the foundation and structure system. CONSULTANT shall work and cooperate with RCDWR staff to address any outstanding construction issues as necessary.
    - CONSULTANT will review special inspection reports (concrete and steel) provided by a separate lab contracted directly by RCDWR.
- Provide guidance and peer-review during preparation of as-built record drawings.

Task 4 – Design HHWCF Site Electrical System Including, but not limited to the Canopy Structure, and Prefabricated Office and Restroom Submission

The CONSULTANT shall evaluate and propose an electrical design for the site, including a connection to the nearest electricity provider Southern California Edison (SCE) as well as electrical designs for the Canopy Structure, the prefabricated office building, and utility trench. The prefabricated office building is expected to be 12' X 32' which will contain a work area, restroom, HVAC system, and security system hardware to monitor strategically place cameras to possibly deter illegal dumping and property theft. The

final electrical design for the facility shall be stamped by a California Registered Electrical Engineer and shall be in compliance with the California Building Code, Title 24.

The electrical design of the canopy structure must be able to power the following but not limited to:

- Exterior power outlets (240V) to be mounted onto each of the structural columns of the proposed canopy structure
- One (1) light pole to be equipped with LED flood lights and surveillance cameras
- Two (2) chemical storage containers to be equipped with a dry chemical fire suppression and alarm system and provide grounding (refer to Attachment B for similar container)
- One (1) office/breakroom to be equipped with a power distribution panel for six (6) interior power outlets, three (3) interior lighting fixtures, and one (1) air conditioning/heating unit; and
- One (1) electric forklift charger (480Volt) for an electric forklift (48Volt).
- LED flood lights located under canopy
- LED flood lights located around the perimeter of the canopy
- Sump pump stormwater basin
- Various Hand Power tools
- 4' x 4' Scale
- Fire Suppression System

The electrical design of the prefabricated office building must be able to power the following but not limited to:

- Copier/Printer
- Computers/Wireless Access
- Refrigerator
- Microwave
- HVAC
- Inside Lights
- Outside lights over doors

Any other drawings or details necessary for the successful completion of the electrical system construction shall be included on the Construction Drawings. If possible, it is desired to have the electrical conduits and

data conduits placed in the same utility trench. The Construction Drawings shall contain, at a minimum, the following:

- Single line diagrams
- Panel diagrams
- Conduit and cable schedule
- Load calculations
- Electrical equipment installation details
- Service conduits

CONSULTANT shall provide COUNTY electronic (PDF and AutoCAD) and two sets of 22x34 plan sheets of the design which include design calculations and construction drawings for the electrical additions shown in Attachment D and Attachment A – Figure 2, and Figure 3. CONSULTANT shall prepare all final documents incorporating all comments from previous reviews. COUNTY assumption is that a total of six (6) iterations/modifications will be completed before final designs are accepted.

Task 5 – Review Electrical Engineering Project Submittals and Provide Engineering Support, as needed, during Construction

The CONSULTANT shall review and approve all material submittals, shop drawings and other information related to the construction of the Canopy structure that will be submitted by the Contractor during project construction. Engineering support, if necessary, during construction on a time and material basis at the rates listed in Exhibit B and shall not exceed a total of $10,000. If support is requested by RCDWR during construction, electrical engineering services shall include but are not limited to the following:

- Periodic construction observation for the purposes of verifying compliance with the approved project plans and specifications that are related to foundation and structure system. Consultant shall work and cooperate with RCDWR staff to address any outstanding construction issues as necessary.
- Special inspection for connection to Southern California Edison.
- Provide guidance and peer-review during preparation of as-built record drawings.

Task 6 – Water Supply and Sewer Design, including supplying water to the Canopy Structure, Prefabricated Office, and Landscaped Area, sewer connections to the Prefabricated Office, and connection to the Eastern Municipal Water District (EMWD) water and sewer line Submission

The water supply for the Canopy, prefabricated office, and landscaped area contains the following:

- Two (2) emergency showers
- Two (2) eye-wash stations
- One (1) sink
- One (1) toilet
- An irrigation system for the landscaped area

The sewer requirement for the prefabricated office building shall be:

- One (1) sink
- One (1) toilet

The final water and sewer supply design and the EMWD water supply and sewer connection design shall be stamped by a California Registered Civil Engineer and shall be in compliance with the EMWD design requirements. The EMWD design must address the following requirements but is not limited to:

Sewer Line Requirement from the Prefabricated Office:

- Ventilation System
- Sewer Cleanout
- Connection to Sewer Main

Water Line Requirements to the Canopy Structure, Prefabricated Office and Landscaped Areas:

- Connection to Water Main supply
- Ventilation System
- Shut-off Valves

CONSULTANT shall provide COUNTY electronic (PDF and AutoCAD) and two sets of 22x34 plan sheets of the design drawings and calculations for this task. CONSULTANT shall prepare all final documents incorporating all comments from previous reviews. COUNTY assumption is that a total of six (6) iterations/modifications will be completed before final designs are accepted.

Task 7 – Design HHWCF landscape area

The CONSULTANT has identified RHA Landscape Architects-Planners, Inc. as their subconsultant to perform the necessary landscape services for this project.

The CONSULTANT shall evaluate and propose a landscape that consists of the following but not limited to:

- Drought tolerant native species
- Irrigation line layout

- Mulch
- Vegetation layout

CONSULTANT shall provide COUNTY electronic (PDF and AutoCAD) and two sets of 22x34 plan sheets of the design which include design calculations, construction drawings of the landscape, and irrigation design. CONSULTANT shall prepare all final documents incorporating all comments from previous reviews. COUNTY assumption is that a total of six (6) iterations/modifications will be completed before final designs are accepted.

LEED Fundamental Commissioning

LEED Certification shall include:

- Breakdown of Accumulated Points within LEED Scorecard for a Minimum of Silver Rating;
- Energy Management System Plans detailing layout and connections of Energy Management systems including but not limited to: sensors, controls, and monitoring devices which are to be coordinated with systems like Electrical, Mechanical, Plumbing, Solar and Back-up Energy Supply;
- Ensure that all equipment used is energy efficient, water saving, and/or compatible with renewable energy sources;
- Coordination drawings showing LEED elements in relation to other systems such as Electrical, Mechanical, Plumbing, Structural elements, and others to ensure no conflicts with other systems;
- Details providing Close-Up views of specific elements to indicate materials or construction methods to be used;
- Construction Notes and Specifications to match Detail materials, construction methods, and other related requirements;

CONSULTANT shall invoice the COUNTY for the following fees as they pertain to LEED Fundamental Comissioning:

- Commissioning of all LEED-required systems
- Virtual Commissioning kick-off meeting
- Roughly 10 virtual check-in meetings
- Functional performance testing in-person

2.0 CHANGE ORDERS

A change order is a mutually agreed upon written order to CONSULTANT, approved and signed by the COUNTY Project Manager and Purchasing Agent, and CONSULTANT's Project Manager, ordering a

change in the Services from those originally set forth in this Agreement. Change orders may require authorization from the COUNTY's Board of Supervisors.

Change orders may be proposed by either the COUNTY or CONSULTANT. Only those change orders that are duly signed and approved by the COUNTY and by CONSULTANT will constitute authorized modifications of this Agreement.

Any change order that would impact project schedule and/or costs will specify the agreed upon schedule and/or cost changes. CONSULTANT shall have no obligation to commence work in connection with any change until the cost and/or schedule impact (if any) of the change is agreed upon by the parties in writing.

The COUNTY and CONSULTANT may, from time to time, agree in writing upon change orders to change particular aspects of the Services originally set forth in this Agreement. With respect to proposed change orders that do not materially impact the scope of either party's work effort required under this Agreement, the parties will cooperate in good faith to agree upon such change orders and will not unreasonably withhold approval of such change orders that are proposed by the other party.

If either party causes or requests a change that materially impacts the scope of the parties' work effort required under this Agreement, such as changes in the allocation of COUNTY and CONSULTANT resources applied to a task, changes in completion schedules for individual tasks or for overall implementation, and changes in staffing that require a party to provide additional work hours, the other party may propose a change order to cover the additional work effort required of it. Approval of such a change order will not be unreasonably withheld provided that the parties mutually agree on any change in cost as a result of such change order. Services to be provided by CONSULTANT under any duly authorized change orders that increase or decrease the project cost will be negotiated as a fixed price addition or reduction to the project cost. If material changes in the timing of the Services to be provided by CONSULTANT are agreed upon in a change order, the parties will also amend any attachments affected by such change.

The fixed price for each change will be negotiated by the COUNTY and CONSULTANT. COUNTY expenses related to the change orders must be itemized in the change order for budgetary purposes, but the COUNTY expense amounts will not be included within the fixed price for the change order.

The parties will agree in writing in a change order upon a schedule for the delivery of each change. Upon acceptance by the COUNTY in a change order of the fixed price and fee schedule, CONSULTANT will

deliver the change under the terms of this Agreement for the fixed price.

CONSULTANT will not provide any services, materials or related items that cause the COUNTY to incur additional costs beyond those stated in this Agreement without the proper advance written consent of the COUNTY as authorized by the COUNTY's Board of Supervisors. Except as specifically stated in this Agreement, COUNTY personnel have no authority to order or direct any changes to this Agreement. Failure of CONSULTANT to secure proper prior written authorization from the COUNTY for any additional services, materials or related items beyond those specifically stated in this Agreement will constitute a waiver by CONSULTANT of any claim for additional compensation related to such items; and such items will be deemed to be included in the costs stated in this Agreement.

Any proposed change order for additional compensation by CONSULTANT must be submitted in writing to the COUNTY immediately upon the arising of the circumstances that form a basis for such claim, but in no event later than ten (10) calendar days following the occurrence of such circumstances and related facts. The written claim shall provide a description in reasonable detail of the nature of such facts and circumstances of the claim, identifying relevant documentary and other evidence alleged to be supportive of the claim, and indicating the person(s) involved in such circumstances. To minimize the possibility of disputes arising in connection with claims of CONSULTANT for additional compensation, in the event of circumstances that may lead to a request for additional compensation (including based upon a changed or unexpected condition), CONSULTANT shall provide immediate written notice to the COUNTY so that the parties can work cooperatively to assess the surrounding facts and circumstances, as well as attempt jointly to identify and agree upon any CONSULTANT cost impact before the corresponding work is done by CONSULTANT. Notwithstanding the foregoing, CONSULTANT acknowledges that this Agreement provides for a fixed project cost and CONSULTANT shall not be entitled to additional compensation for the completion of Services beyond that stated in this Agreement or that have been included within the Documentation and that any agreement by the COUNTY to provide such additional compensation shall be in the COUNTY's sole and absolute discretion.

2.1. Change Order Plan

The Change Order Plan will provide a detailed set of guidelines for the Change Order process that will be utilized during the project and will follow the high-level process defined below:

2.1.1 Change Proposed by the COUNTY

1. The COUNTY Project Manager may issue a Change Request to the CONSULTANT Project Manager, which includes a detailed description of the proposed change and any requirements and/or design documentation that may be available. The change proposal will include user acceptance testing criteria.

2. The CONSULTANT Project Manager will review and approve the Change Request and any corresponding requirements and/or design specifications and user acceptance testing criteria within five (5) COUNTY business days. If additional information is required, CONSULTANT can return the Change Request to the COUNTY Project Manager for further information, to include a detailed list of issues that need clarification. Upon resubmission of the Change Request, the approval step starts over.

3. CONSULTANT personnel will then prepare and submit a change order on the enhancement within five (5) COUNTY business days, to include costs and impact of the change upon the project schedule.

4. All changes resulting in a cost or schedule change will be submitted to the Department's Chief Engineer for review. The Department's Chief Engineer will review and approve/disapprove the change within ten (10) COUNTY business days, or as otherwise mutually agreed between the COUNTY and CONSULTANT. Upon approval, the Department's Chief Engineer shall sign the change order.

5. The COUNTY Purchasing Agent and/or their designee shall review, approve/disapprove the change within ten (10) COUNTY business days, or as otherwise mutually agreed between the COUNTY and CONSULTANT. Upon signature, approval of the change will include acceptance of modified project implementation dates.

2.1.2 Change Proposed by the CONSULTANT

1. The CONSULTANT Project Manager may propose a change by submitting request for change to the COUNTY Project Manager, describing the proposed change, reason for

the change, costs, etc., and its impact upon the project schedule. The change proposal will include user acceptance testing criteria.

2. The COUNTY Project Manager will review the proposed change and approve the requirements/design specifications and user acceptance testing criteria within five (5) COUNTY business days. If the requirements/design specifications are incomplete or additional information is required, the COUNTY can return the proposal to the CONSULTANT Project Manager for further information, to include a detailed list of issues that need clarification. Upon resubmission of the Proposal Request, the approval step starts over.

3. CONSULTANT personnel will then prepare and submit a bid on the enhancement within five (5) COUNTY business days, to include costs and impact of the change upon the project schedule.

4. All changes resulting in a cost or schedule change will be submitted to the Department's Chief Engineer for review. The Department's Chief Engineer will review and approve/disapprove the change within ten (10) COUNTY business days. Upon approval, the Department's Chief Engineer shall sign the change order.

5. The COUNTY Purchasing Agent and/or their designee shall review, approve/disapprove the change within ten (10) COUNTY business days, or as otherwise mutually agreed between the COUNTY and CONSULTANT. Upon signature, approval of the change will include acceptance of modified project implementation dates.

EXHIBIT "B"

PAYMENT PROVISIONS

Task #	Task Description	Estimated Total Amount
Task 1.0	Review Existing Geotechnical Data, Conduct any Necessary Additional Field Investigation, and Prepare a Geotechnical Letter Report	$ 2,500.00
Task 2.0	Design and Prepare Construction Drawings for a Canopy System, including Permanent Metal Roof Structure, Continuous Footings and Slab-on-Grade (Estimate includes a total of six (6) iterations/modifications will be completed before final designs are accepted)	$ 26,000.00
Task 3.0	Review Structural Engineering Project Submittals and Provide Engineering Support, as needed, during Construction	Not to Exceed $ 10,000.00 (Billed hourly as per Rate Schedules)
Task 4.0	Design HHWCF Site Electrical System Including, but not limited to the Canopy Structure, and Prefabricated Office and Restroom Submission (Estimate includes a total of six (6) iterations/modifications will be completed before final designs are accepted)	$ 36,500.00
Task 5.0	Review Electrical Engineering Project Submittals and Provide Engineering Support, as needed, during Construction	Not to Exceed $ 10,000.00 (Billed hourly as per Rate Schedules)
Task 6.0	Water Supply and Sewer Design, including supplying water to the Canopy Structure, Prefabricated Office, and Landscaped Area, sewer connections to the Prefabricated Office, and connection to the EMWD water and sewer line Submission (Estimate includes a total of six (6) iterations/modifications will be completed before final designs are accepted)	$ 16,030.00
Task 7.0	Design HHWCF landscape area (Estimate includes a total of six (6) iterations/modifications will be completed before final designs are accepted)	$ 16,000.00
Other Direct Costs (ODC)	LEED Fees – Includes: • Commissioning of all LEED-required systems • Virtual Commissioning kick-off meeting • Roughly 10 virtual check-in meetings • Functional performance testing in-person	$ 25,000.00

CONSULTANT's RATE SCHEDULES

Structural Engineering	
Category	**Hourly Rates**
Principal	$ 265.00
Senior Engineer	$ 220.00
Senior Project Engineer	$ 200.00
Project Engineer	$ 175.00
Engineer II / Design Engineer	$ 155.00
Engineer I / Design Engineer	$ 140.00
BIM Technician III / Designer III	$ 180.00
BIM Technician II / Designer II	$ 130.00
BIM Technician I / Designer I	$ 110.00
Administrative Support	$ 90.00

Electrical Engineering	
Category	**Hourly Rates**
Principal	$ 282.00
Associate	$ 230.00
Engineer	$ 188.00
Designer	$ 150.00
CAD/Revit Technician	$ 120.00
Clerical	$ 80.00

Civil Engineering*	
Category	**Hourly Rates**
Principal	$220.00
Senior Project Manager	$210.00
Project Manager	$200.00
Project Engineer	$185.00
Design Engineer	$160.00
Designer	$140.00

*Printing & CAD Plots = 15% Mark-up to the hourly rate

Civil Engineering Surveying		
Category	**Standard Hourly Rates**	**Prevailing Wage Rates**
Office Surveyor	$ 200.00	$ 200.00
Survey Field Supervisor	$ 160.00	$ 160.00
Office Survey Tech	$ 160.00	$ 160.00
One-Person Survey Crew	$ 175.00	$ 195.00
Two-Person Survey Crew	$ 275.00	$ 325.00
Three-Person Survey Crew	$ 340.00	$390.00

EXHIBIT "C"
PREVAILING WAGE REQUIREMENTS

All or a portion of the Scope of Services in this Agreement requires the payment of prevailing wages and compliance with the following requirements. In the event there is a conflict between this Exhibit and current applicable law, current applicable law shall prevail and the below shall be automatically amended to read accordingly.

C1.0. Determination of Prevailing Rates

Pursuant to Labor Code sections 1770, et seq., the COUNTY has obtained from the Director of the Department of Industrial Relations (DIR) pursuant to the California Labor Code, the general prevailing rates of per diem wages and the prevailing rates for holiday and overtime work in the locality in which the Scope of Services is to be performed. Copies of said rates are on file at the COUNTY's principal office, which shall be made available to any interested party upon request and for inspection during regular business hours, may be included elsewhere in the specifications for the Scope of Services, and are also available online at www.dir.ca.gov. The wage rate for any classification not listed, but which may be required to execute the Scope of Services, shall be commensurate and in accord with specified rates for similar or comparable classifications for those performing similar or comparable duties. In accordance with Labor Code section 1773.2, the CONSULTANT shall post, at appropriate and conspicuous locations on the jobsite, a schedule showing all applicable prevailing wage rates and shall comply with the requirements of Labor Code sections 1773, et seq.

C2.0. Payment of Prevailing Rates

Each worker of the CONSULTANT, or any subconsultant, engaged in the Scope of Services, shall be paid not less than the general prevailing wage rate, regardless of any contractual relationship which may be alleged to exist between the CONSULTANT or any subconsultant, and such worker.

C3.0. Prevailing Rate Penalty

The CONSULTANT shall, as a penalty, forfeit two hundred dollars ($200.00) to the COUNTY for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of the DIR for such work or craft in which such worker is employed by the CONSULTANT or by

any subCONSULTANT in connection with the Scope of Services. Pursuant to California Labor Code section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by the CONSULTANT.

C4.0. Ineligible CONSULTANTs

Pursuant to the provisions of Labor Code section 1777.1, the Labor Commissioner publishes and distributes a list of CONSULTANTs ineligible to perform work as a CONSULTANT or subconsultant on a public works project. This list of debarred CONSULTANTs is available from the DIR website at http://www.dir.ca.gov/Public- Works/PublicWorks.html. Any contract entered into between a CONSULTANT and a debarred subconsultant is void as a matter of law. A debarred subconsultant may not receive any public money for performing work as a subconsultant on a public works contract, and any public money that may have been paid to a debarred subconsultant by a CONSULTANT on the project shall be returned to the COUNTY. The CONSULTANT shall be responsible for the payment of wages to workers of a debarred subconsultant who has been allowed to work on the Scope of Services.

C5.0. Payroll Records

Pursuant to California Labor Code section 1776, the CONSULTANT and each subconsultant, shall keep accurate certified payroll records, showing the name, address, social security number, work classification, 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 them in connection with the Scope of Services. The payroll records enumerated herein shall be verified by a written declaration made under penalty of perjury that the information contained in the payroll record is true and correct and that the CONSULTANT or subconsultant has complied with the requirements of the California Labor Code sections 1771, 1811, and 1815 for any Scope of Services performed by his or her employees. The payroll records shall be available for inspection at all reasonable hours at the principal office of the CONSULTANT 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/her authorized representative on request;

(2) A certified copy of all payroll records shall be made available for inspection or furnished upon request to the COUNTY, the Division of Labor Standards Enforcement of the DIR;

(3) A certified copy of payroll records shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the COUNTY or the Division of Labor Standards Enforcement. If the requested payroll records have not been previously provided to the COUNTY or the Division of Labor Standards Enforcement, the requesting Party shall, prior to being provided the records, reimburse the cost of preparation by the CONSULTANT, subconsultant and the entity through which the request was made; the public shall not be given access to such records at the principal office of the CONSULTANT;

(4) The CONSULTANT shall file a certified copy of the payroll records with the entity that requested such records within ten (10) days after receipt of a written request; and

(5) Copies provided to the public, by the COUNTY or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the CONSULTANT or any subconsultant, performing a part of the Scope of Services shall not be marked or obliterated. The CONSULTANT shall inform the COUNTY of the location of payroll records, including the street address, city and COUNTY and shall, within five (5) working days, provide a notice of a change of location and address. The CONSULTANT shall have ten (10) days from receipt of the written notice specifying in what respects the CONSULTANT must comply with the above requirements. In the event CONSULTANT does not comply with the requirements of this section within the ten (10) day period, the CONSULTANT shall, as a penalty to the COUNTY, forfeit one-hundred dollars ($100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, such penalty shall be withheld from any portion of the payments then due or to become due to the CONSULTANT.

C6.0. Limits of Hours of Work

Pursuant to California Labor Code section 1810, eight (8) hours of labor shall constitute a legal day's work. Pursuant to California Labor Code section 1811, the time of service of any worker employed at any time by the CONSULTANT or by a subconsultant, upon the Scope of Services or upon any part of the Scope of Services, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as provided for under Labor Code section 1815. Notwithstanding the foregoing provisions, work performed by employees of CONSULTANT or any subconsultant, in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1½) times the basic rate of pay.

C7.0. Penalty of Excess Hours

The CONSULTANT shall pay to the COUNTY a penalty of twenty-five dollars ($25.00) for each worker employed on the Scope of Services by the CONSULTANT or any subconsultant, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one calendar week, in violation of the provisions of the California Labor Code, unless compensation to the worker so employed by the CONSULTANT is not less than one and one-half (1½) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

C8.0. Senate Bill 854 (Chapter 28, Statutes of 2014) Requirements

C8.1. CONSULTANT shall comply with Senate Bill 854 (signed into law on June 20, 2014). The requirements include, but are not limited to, the following:

a. No CONSULTANT or subconsultant may be listed on a bid proposal (submitted on or after March 1, 2015) for a public works project unless registered with the DIR pursuant to Labor Code section 1725.5, with limited exceptions from this requirements for bid purposes only as allowed under Labor Code section 1771.1(a).

b. No CONSULTANT or subconsultant may be awarded a contract for public work or perform work on a public works project (awarded on or after April 1, 2015) unless registered with the DIR pursuant to Labor Code section 1725.5.

c. This project is subject to compliance monitoring and enforcement by the DIR.

d. As required by the DIR, CONSULTANT is required to post job site notices, as prescribed by regulation, regarding compliance monitoring and enforcement by the DIR.

e. CONSULTANT and all subconsultants must submit certified payroll records online to the Labor Commissioner for all new public works projects issued on or after April 1, 2015, and for all public works projects, new or ongoing, on or after January 1, 2016.

i. The certified payroll must be submitted at least monthly to the Labor Commissioner.

ii. The COUNTY reserves the right to require CONSULTANT and all subconsultants to submit certified payroll records more frequently than monthly to the Labor Commissioner.

iii. The certified payroll records must be in a format prescribed by the Labor Commissioner.

C8.2. As required by Labor Code 1771.1(a) "A CONSULTANT or subconsultant shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or

engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered CONSULTANT to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the CONSULTANT is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

C9.0. STATE PUBLIC WORKS APPRENTICESHIP REQUIRMENTS

C9.1. State Public Works Apprenticeship Requirements: The CONSULTANT is responsible for compliance with Labor Code section 1777.5 and the California Code of Regulations, title 8, sections 230 – 230.2 for all apprenticeable occupations (denoted with "#" symbol next to craft name in DIR Prevailing Wage Determination), whether employed by the CONSULTANT, subconsultant, vendor or consultant. Included in these requirements is (1) the CONSULTANT's requirement to provide notification (i.e. DAS-140) to the appropriate apprenticeship committees; (2) pay training fund contributions for each apprenticeable hour employed on the Contract; and (3) utilize apprentices in a minimum ratio of not less than one apprentice hour for each five journeyman hours by completion of Contract work (unless an exception is granted in accordance with Labor Code section 1777.5) or request for the dispatch of apprentices.

Any apprentices employed to perform any of the Scope of Services shall be paid the standard wage to apprentices under the regulations of the craft or trade for which such apprentice is employed, and such individual shall be employed only for the work of the craft or trade to which such individual is registered. Only apprentices, as defined in California Labor Code section 3077, who are in training under apprenticeship standards and written apprenticeship agreements under California Labor Code sections 3070 et seq. are eligible to be employed for the Scope of Services. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which such apprentice is training.

C9.2. Compliance with California Labor Code section 1777.5 requires all public works CONSULTANTs to:

C9.2.1) Submit Contract Award Information (DAS-140)

a. Although there are a few exemptions (identified below), all CONSULTANTs, regardless of union affiliation, must submit contract award information when performing on a California public works project.

b. The DAS-140 is a notification "announcement" of the CONSULTANT's participation on a public works project—it is not a request for the dispatch of an apprentice.

c. CONSULTANT shall submit the contract award information (you may use form DAS 140) within 10 days of the execution of the prime CONSULTANT subcontract, but in no event later than the first day in which the CONSULTANT has workers employed on the public work.

d. CONSULTANTs who are already approved to train apprentices (i.e. check "Box 1" on the DAS-140) shall only be required to submit the form to their approved program.

e. CONSULTANTs who are NOT approved to train apprentices (i.e. those that check either "Box 2" or "Box 3" on the DAS-140) shall submit the DAS-140 TO EACH of the apprenticeship program sponsors in the area of your public works project. For a listing of apprenticeship programs see http://www.dir.ca.gov/Databases/das/pwaddrstart.asp.

C9.2.2) Employ Registered Apprentices

a. Labor Code section 1777.5 requires that a CONSULTANT performing work in an "apprenticeable" craft must employ one (1) hour of apprentice work for every five (5) hours performed by a journeyman. This ratio shall be met prior to the CONSULTANT's completion of work on the project. "Apprenticeable" crafts are denoted with a pound symbol "#" in front of the craft name on the prevailing wage determination.

b. All CONSULTANTs who do not fall within an exemption category (see below) must request for dispatch of an apprentice from an apprenticeship program (for each apprenticeable craft or trade) by giving the program actual notice of at least 72 hours (business days only) before the date on which apprentices are required.

c. CONSULTANTs may use the "DAS-142" form for making a request for the dispatch of an apprentice.

d. CONSULTANTs who are participating in an approved apprenticeship training program and who did not receive sufficient number of apprentices from their initial request must request dispatch of apprentices from ALL OTHER apprenticeship committees in the project area in order to fulfill this requirement.

e. CONSULTANT should maintain and submit proof (when requested) of its DAS-142 submittal to the apprenticeship committees (e.g. fax transmittal confirmation). CONSULTANT has met its requirement to employ apprentices only after it has successfully made a dispatch request to all apprenticeship programs in the project area.

f. Only "registered" apprentices may be paid the prevailing apprentice rates and must, at all times work under the supervision of a Journeyman (Cal. Code Regs., tit 8, § 230.1).

C9.2.3) Make Training Fund Contributions

a. CONSULTANTs performing in apprenticeable crafts on public works projects, must make training fund contributions in the amount established in the prevailing wage rate publication for journeymen and apprentices.

b. CONSULTANTs may use the "CAC-2" form for submittal of their training fund contributions.

c. CONSULTANTs who do not submit their training fund contributions to an approved apprenticeship training program must submit their contributions to the California Apprenticeship Council (CAC), PO Box 420603, San Francisco, CA 94142-0603.

d. Training fund contributions to the CAC are due and payable on the 15th day of the month for work performed during the preceding month.

e. The "training" contribution amount identified on the prevailing wage determination shall not be paid to the worker, unless the worker falls within one of the exemption categories listed below.

C9.2.4) Exceptions to Apprenticeship Requirements: The following are exempt from having to comply with California apprenticeship requirements. These types of CONSULTANTs do not need to submit a DAS-140, DAS-142, make training fund contributions, or utilize apprentices.

a. When the CONSULTANT holds a sole proprietor license ("Owner-Operator") and no workers were employed by the CONSULTANT. In other words, the CONSULTANT performed the entire work from start to finish and worked alone.

b. CONSULTANTs performing in non-apprenticeable crafts. "Apprenticeable" crafts are denoted with a pound symbol "#" in front of the craft name on the prevailing wage determination.

c. When the CONSULTANT has a direct contract with the Public Agency that is under $30,000.

d. When the project is 100% federally-funded and the funding of the project does not contain any city, COUNTY, and/or state monies (unless the project is administered by a state agency in which case the apprenticeship requirements apply).

e. When the project is a private project not covered by the definition of public works as found in Labor Code section 1720.

C9.2.5) Exceptions from Apprenticeship Ratios: The Joint Apprenticeship Committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the CONSULTANT from the 1-to-5 ratio set forth in this Section when it finds that any one of the following conditions are met:

a. Unemployment for the previous three-month period in such area exceeds an average of fifteen percent (15%); or

b. The number of apprentices in training in such area exceeds a ratio of 1-to-5 in relation to journeymen; or

c. The Apprenticeable Craft or Trade is replacing at least one-thirtieth (1/30) of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis; or

d. If assignment of an apprentice to any work performed under the Contract Documents would create a condition which would jeopardize such apprentice's life or the life, safety or property of fellow employees or the public at large, or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

When such exemptions from the 1-to-5 ratio between apprentices and journeymen are granted to an organization which represents CONSULTANTs in a specific trade on a local or statewide basis, the member CONSULTANTs will not be required to submit individual applications for approval to local Joint Apprenticeship Committees, provided they are already covered by the local apprenticeship standards.

C9.2.6) CONSULTANT's Compliance: The responsibility of compliance with this Section for all Apprenticeable Trades or Crafts is solely and exclusively that of the CONSULTANT. All decisions of the Joint Apprenticeship Committee(s) under this Section are subject to the provisions of California Labor Code section 3081 and penalties are pursuant to Labor Code section 1777.7 and the determination of the Labor Commissioner.

C10. LABOR CODE CERTIFICATIONS

By signing this Agreement, CONSULTANT certifies the following:

a. "I am aware of the provisions of Labor Code section § 3700 which require 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 will comply with such provisions before commencing the performance of the work of this contract."

Attachment A

HHWCF Project Description

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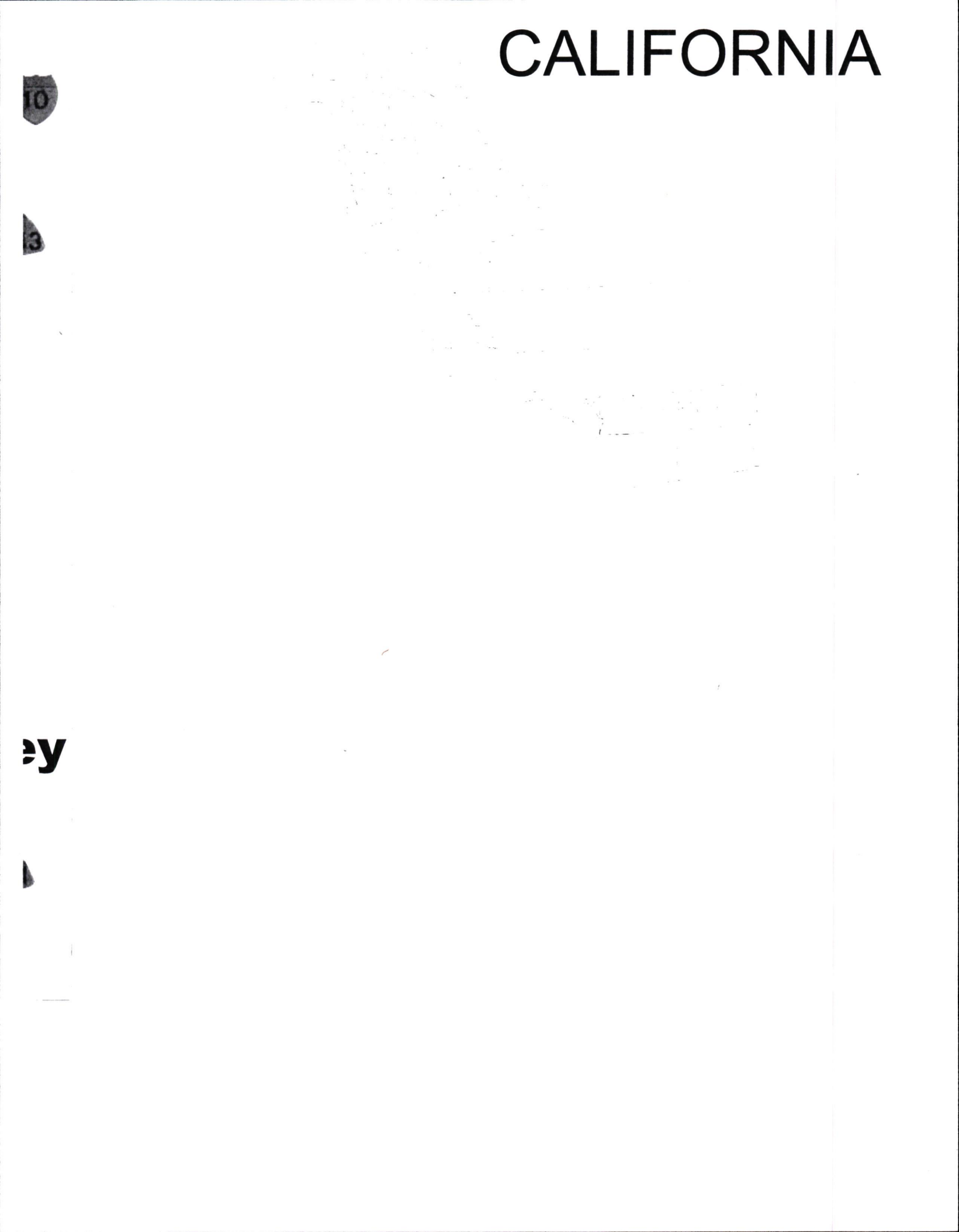
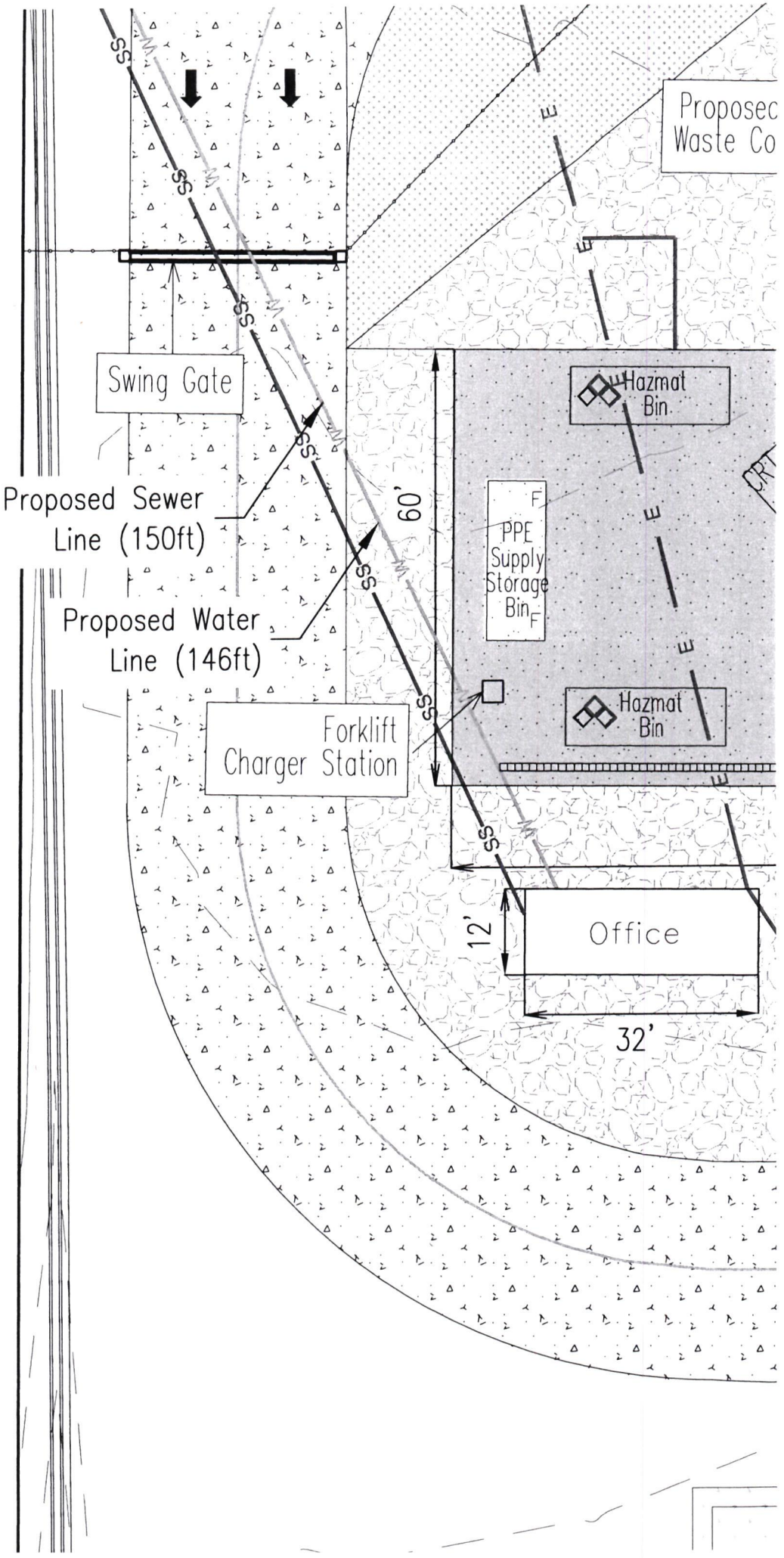
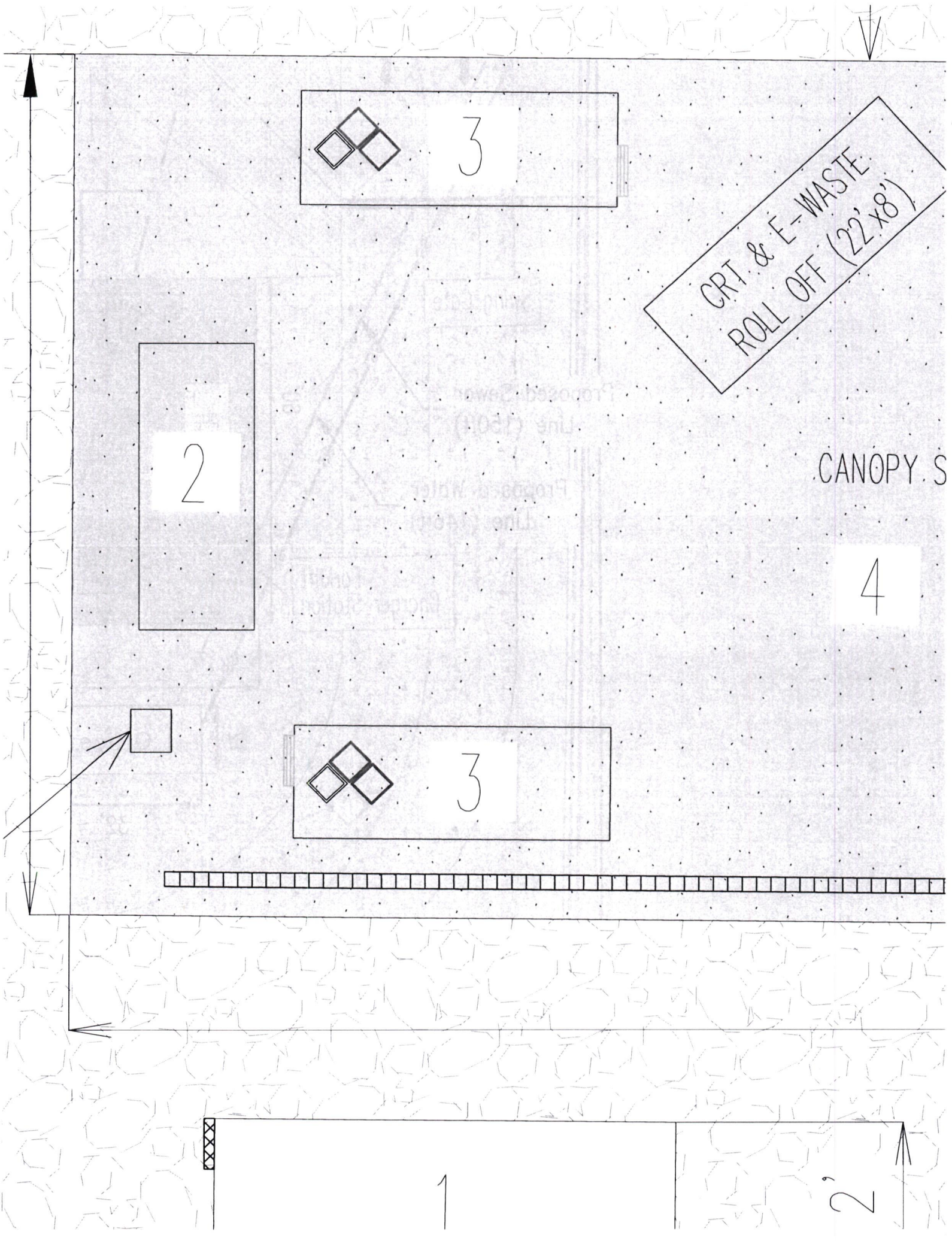
FIGURES


CALIFORNIA
10
3
ey


Proposec
Waste Co
Swing Gate
Proposed Sewer
Line (150ft)
Proposed Water
Line (146ft)
Hazmat
Bin
PPE
Supply
Storage
Bin
Hazmat
Bin
Forklift
Charger Station
60'
Office
12'
32'


3
CRT & E-WASTE
ROLL OFF (22'x8')
2
CANOPY S
4
3
1
2

Attachment B

Sample Chemical Storage Container Shop Drawings

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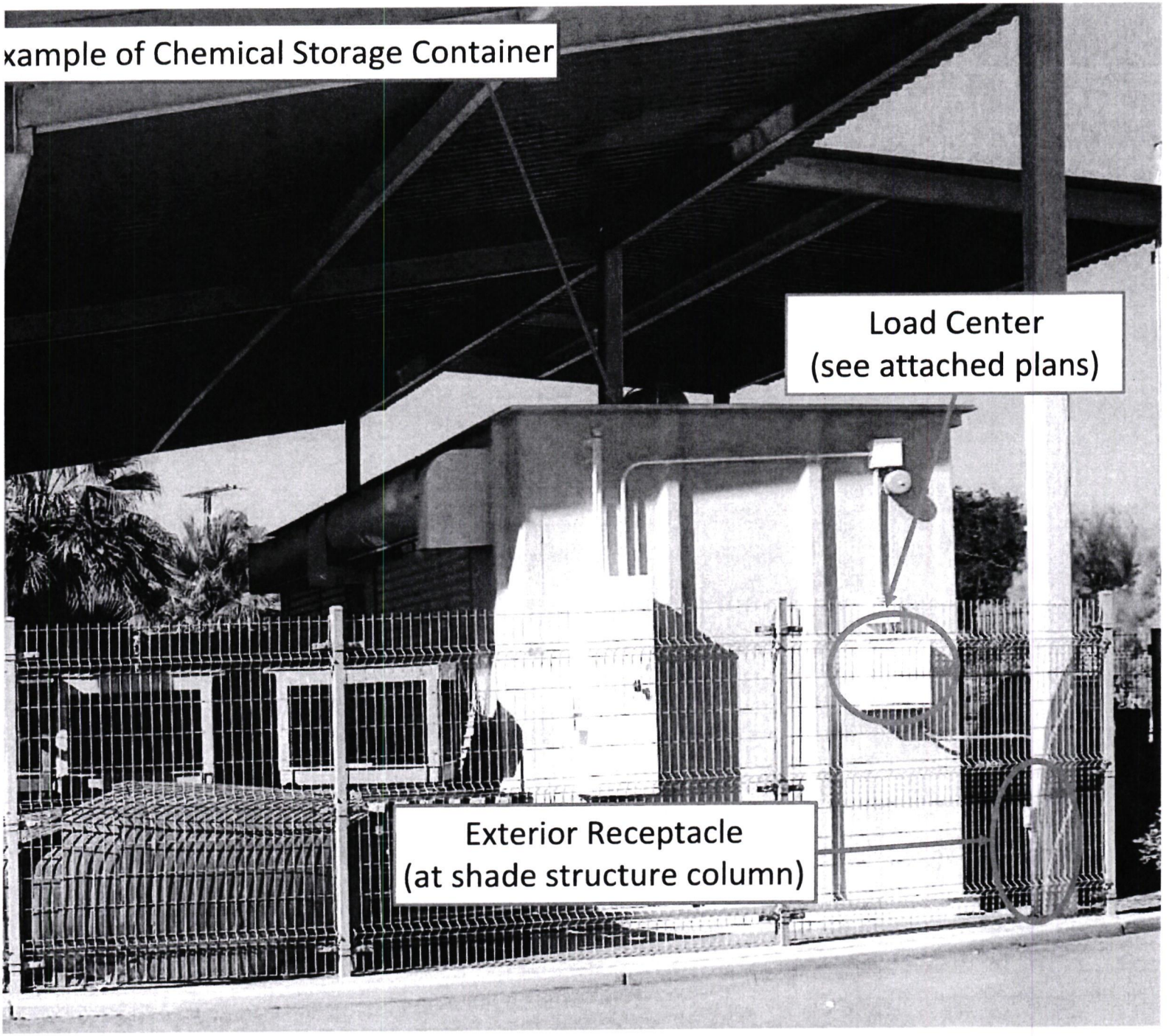

xample of Chemical Storage Container
Load Center
(see attached plans)
Exterior Receptacle
(at shade structure column)

DA22976-C | 1 | A

REVISIO	
REV	DESCRIPTION
A	MODIFIED FOR CUSTOM E

SAFETY STORAGE, INC.
2301 BERT DRIVE
HOLLISTER, CA 95023
PH (831) 637-5965
FAX (831) 637-7405

'TURER — SAFETY STORAGE, INC.
2301 BERT DRIVE
HOLLISTER, CA 95023

'R — CITY OF PALM SPRINGS
FIRE TRAINING

: SITE — 300 EAST ALEJO ROAD
PALM SPRINGS, CA 92262

:L — 2408S, #22976

PROJECT DESIGN DATA

BUILDING DIMENSIONAL DATA
LENGTH = 299.29"
WIDTH = 106.79"
HEIGHT = 120.00"

CENTER LINE TO CENTER LINE ANCHOR BOLT DIMENSIONS
LENGTH = 297.29"
WIDTH = 95.16"

ANCHOR BOLT REACTIONS
(1 ANCHOR BOLT PER CORNER TIE DOWN LOCATIONS = 4 BOLT TOTAL)
UPLIFT PER BOLT (TENSION) = 3.30 kips
HORIZONTAL PER BOLT (SHEAR) = 2.20 kips

BUILDING DEAD & ACCESSORY LOADS (APPROX 15%):
(EXCLUDES FLOOR LIVE LOAD)
BUILDING DEAD LOAD = 11,992 LBS
ACCESSORY DEAD LOAD = 1,799 LBS
BUILDING DEAD LOAD + ACCESSORY = 13,791 LBS.
UNIFORM BUILDING DEAD LOAD + ACCESSORY = 62 PSF

APPLICABLE CODES

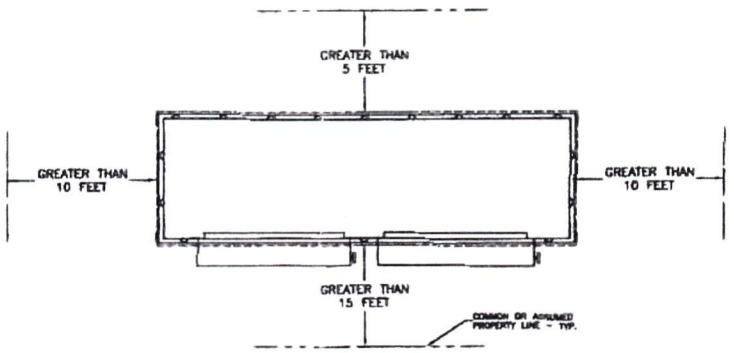
2007 CALIFORNIA BUILDING CODE (CBC)
2007 CALIFORNIA MECHANICAL CODE (CMC)
2007 CALIFORNIA ELECTRICAL CODE (CEC)

DESIGN CRITERIA

CONSTRUCTION CLASS	II-B
OCCUPANCY USE GROUP	N/A
SIZE OF BUILDING	192 SF (INTER
VOLUME OF BUILDING	1648 CF (INTE
NUMBER OF STORIES	1
SETBACK REQUIREMENTS	DIAGRAM BELO
ROOF LIVE LOAD	20 PSF
FLOOR LIVE LOAD	500 PSF
BASIC WIND SPEED	110MPH/3 SE
SEISMIC (S_s)	1.50g
SEISMIC (S_1)	0.60g
SITE CLASS	D
OCCUPANCY CATEGORY	III
SEISMIC DESIGN CATEGORY	D

DRAWING INDEX

SHEET NO.	DESCRIPTION
1 OF 1	CITY OF PALM SPRINGS (COVER PAGE)
1 OF 3	MODEL 2408S, #22976 (ELEVATIONS)
2 OF 3	MODEL 2408S, #22976 (ELEVATIONS)
3 OF 3	MODEL 2408S, #22976 (ELEVATIONS)
1 OF 1	MODEL 2408S, #22976 (DRY CHEM SYSTEM)
1 OF 1	MODEL 2408S, #22976 (WIRING DIAGRAM)
1 OF 1	ILLUSTRATIVE EXAMPLE FOUNDATION PLAN



BUILDING SETBACK PLAN
NO SCALE

REGISTERED PROFESSIONAL ENGINEER
JEFFREY J
C 5
Exp. 06-
STATE OF

ED ON LOCAL JURISDICTION.
IUST BE OBTAINED FROM THE FIRE PREVENTION
BUILDING IS OCCUPIED.
TED WHERE LOCAL CONDITIONS EXCEED THE
:D FOR HUMAN OCCUPANCY.
THERS IN THE FIELD.
WER, IF REQUIRED, TO BE PROVIDED ON SITE BY
LOCAL AUTHORITY HAVING JURIDICTION

THIS CERTIFICATION IS FOR STRUC
OCCUPANCY CLASSIFICATION NOT R

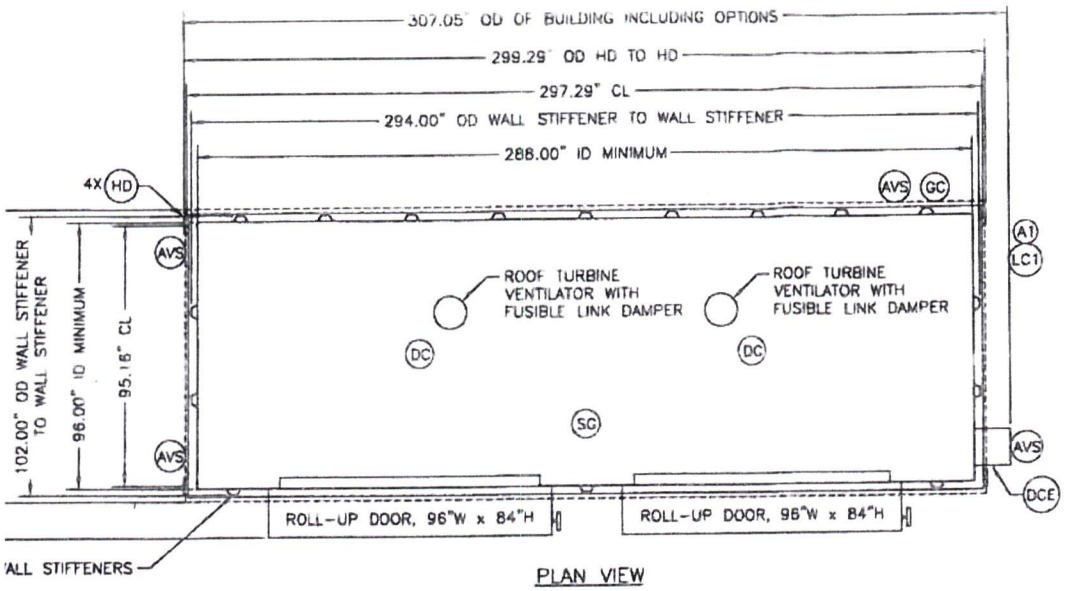
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS ± 1/16 | DECIMALS ± .XX ± .031 | ANGLES ± 2°
MATERIAL:
DWG. NUMBER:

APPROVALS	DATE
DRAWN BY: KDK	7/20/06
CHECKED BY:	
MFG. SS?	
NEXT ASSY:	
DO NOT SCALE DRAWING	

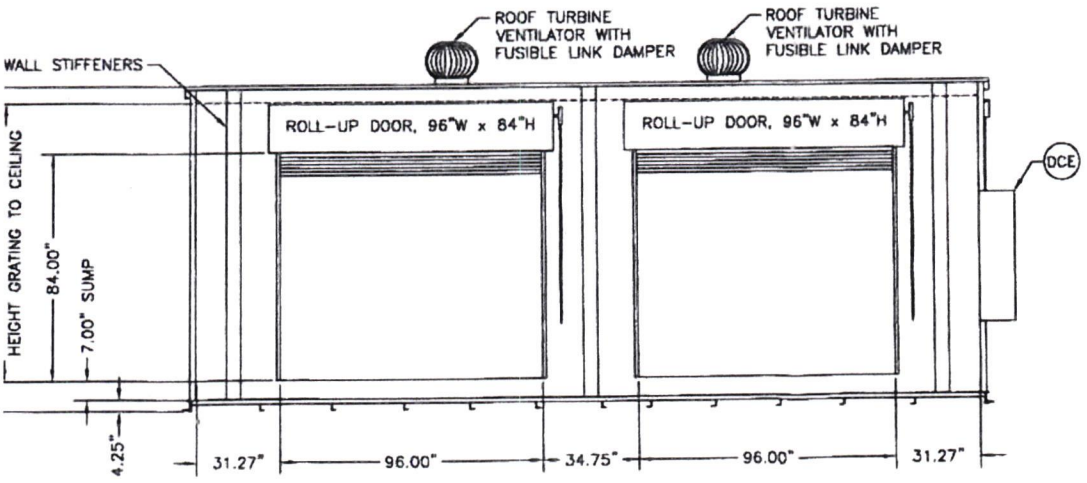
SAFET STORAG
CITY OF PALM
MODEL
SIZE D | DRAWING NO. DA22
SCALE 1/40 | FILE: DA

DA22976-1 | 1 | A

REVISION	
REV	DESCRIPTION
A	MODIFIED FOR CUSTOM D



PLAN VIEW



FRONT VIEW

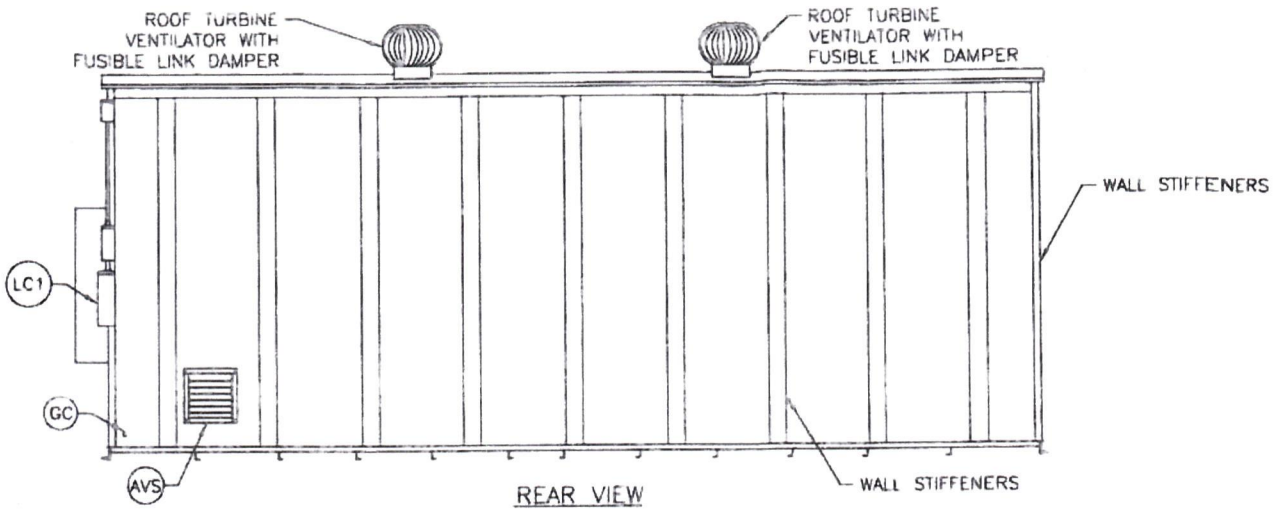
REGISTERED PROFESSIONAL ENGINEER
JEFFREY J. DU
C 5144
Exp. 06-30-2
CIVIL
STATE OF CALIF

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:	APPROVALS	DATE
FRACTIONS ± 1/16 DECIMALS ± .06 ± .031 ANGLES ± 3°	DRAWN BY: KDK	7/21/98
MATERIALS:	CHECKED BY:	
	MFG. SSI	
MY NUMBER:	NEXT ASSY:	
	DO NOT SCALE DRAWING	

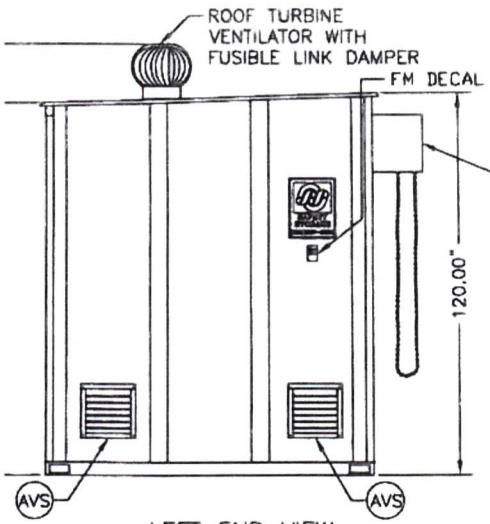
SAFETY STORAGE
CITY OF PALM
MODEL
SIZE D | DRAWING NO. DA22
SCALE 1/20 | FILE: DA

DWG NO. DA22976-2 | SHT 1 | REV A

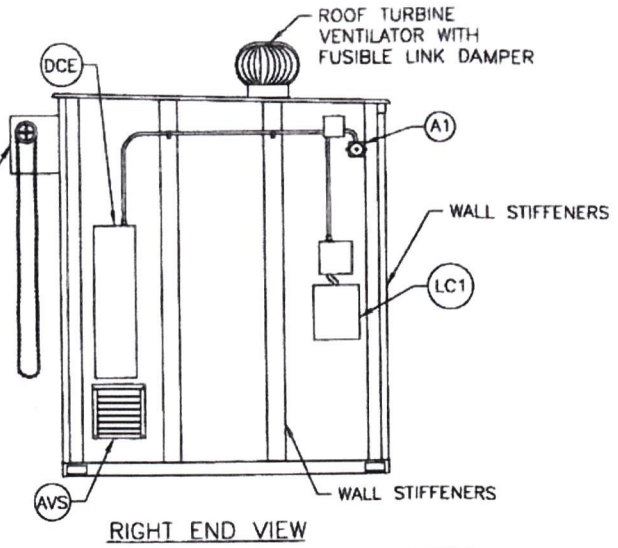
REV	DESCRIPTION
A	MODIFIED FOR CUSTOM D



REAR VIEW



LEFT END VIEW



RIGHT END VIEW

APPROVALS	DATE
DRAWN BY: KDK	7/21/98
CHECKED BY:	
MFG: SSI	
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SAFE STORA

CITY OF PALM

MODEL

SIZE D | DRAWING NO. DA2

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DA22976-3 | 1 | A

REVISIONS	
REV	DESCRIPTION
A	MODIFIED FOR CUSTOM DR

FOR:
#22976 STORAGE LOCKER

SSED FLOOR FORMS A LEAKTIGHT SUMP, WHICH PROVIDES SPILL CONTAINMENT CAPACITY OF APPROXIMATELY: 804 GALLONS.

TARE WEIGHT 13,791 LBS. (INCLUDES ACCESSORIES).

AND EXTERIOR SURFACES TO HAVE CHEMICALLY RESISTANT OXY PRIMER WITH ALIPHATIC POLYURETHANE FINISH COAT:
AT: EPOXY (EXTERIOR & INTERIOR)
AT: POLYURETHANE (EXTERIOR & INTERIOR)
STANDARD WHITE (EXTERIOR & INTERIOR)

ACH BUILDING TO BE EQUIPPED WITH METAL FLIPCHART HAZ-MAT CARD AND NFPA 704M STICKER/SYMBOL

D PERMITS MUST BE OBTAINED BEFORE THIS BUILDING IS

G EQUIPPED WITH TWO (2) UL-LISTED AND LABELED, ATED ROLL-UP DOORS.

TS ARE PROTECTED WITH A UL-LISTED FIRE DAMPER HAVING A 3-HR TION RATING. ALSO, THE TOTAL AREA OF OPENINGS DOES NOT OF THE AREA OF THE ASSOCIATED WALL.

ING (ESD GROUNDING) INTERIOR & EXTERIOR, WITH OR GROUNDING ROD & #4AWG SOLID COPPER BOND WIRE)

UIPPED WITH (4), SEISMIC ZONE-4, HOLD DOWN BRACKETS (ONE R).

QUIPPED WITH GALVANIZED STEEL FLOOR GRATING (RATED AT 500 M LOAD).

POWER: 208Y/120V 1 PHASE

QUIPED WITH ONE (1) PRE-ENGINEERED, DRY CHEMICAL FIRE N SYSTEM. THIS DRY CHEMICAL FIRE SUPPRESSION SYSTEM " & 3/4" SCHEDULE 40, NPT PIPING & FITTINGS, TWO (2) DING NOZZLES WITH CAP COVERS THAT BLOW-OFF UPON TVATION AND A 21 LB (ABC) PRESSURIZED AGENT CYLINDER. M WILL HAVE AN EXTERIOR MOUNTED AUDIBLE ALARM BELL WIRED S FOR CENTRALIZED COMMUNICATION (REMOTE ANNUNCIATION). I WILL HAVE TWO ACTIVATION POINTS - (1) MANUAL PULL STATION TOMATIC VIA FUSIBLE LINKS, (SET AT 165 DEGREES). M HAS A WEATHERPROOF ENCLOSURE OVER THE 21 LB AGENT ND IT'S "SYSTEM BRAINS" PER NFPA 17. THE SYSTEM IS "UL" ROVED FOR PRODUCT AND INSTALLATION METHOD.

QUIPPED WITH TWO (2) ROOF TURBINE VENTILATORS WITH FUSIBLE RS.

LEGEND

A1:	ALARM, DRY-CHEM (NON-EP)
AVS:	AIR INLET VENT, STEEL BUILDING
DC:	DRY CHEM NOZZLE
DCE:	DRY CHEM ENCLOSURE W/AGENT CYLINDER
GC:	GROUNDING CONNECTION
HD:	HOLD-DOWN BRACKET
LC1:	LOAD CENTER
N:	NFPA 704M RATING SIGN
NON-EP:	NON EXPLOSION PROOF
PP:	PERMANENT D.O.T. PLACARD
SG:	STEEL FLOOR GRATING (GALVANIZED)

REGISTERED PROFESSIONAL ENGINEER C Exp. STATE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± 1/16 | DECIMALS ± .00 ± .031 | ANGLES ± .5°

MATERIAL:

FINISH:

NEXT ASSY:

APPROVALS	DATE
DRAWN BY: KDK	7/16/98
CHECKED BY:	
MFG: SSI	

DO NOT SCALE DRAWING

SAFETY STORAGE

CITY OF PALM
MODEL

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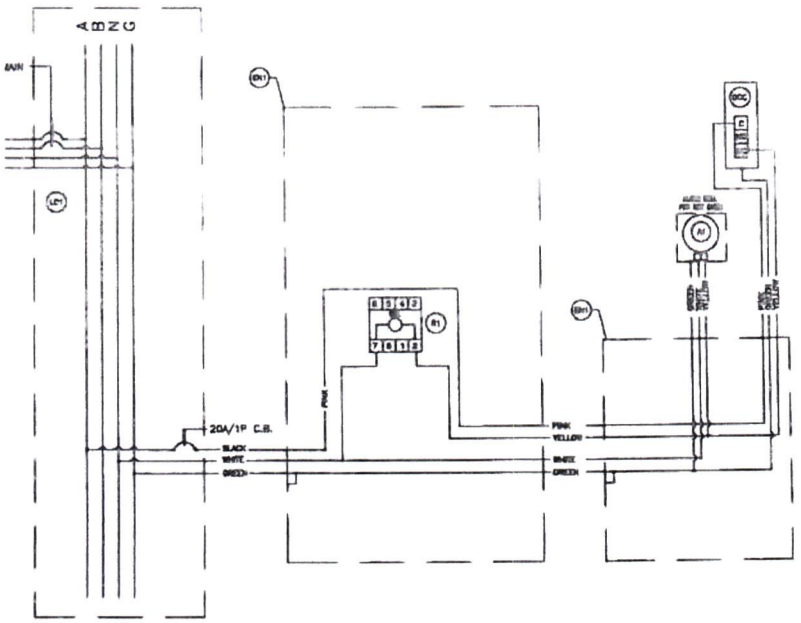
SCALE 1/16 | FILE DA

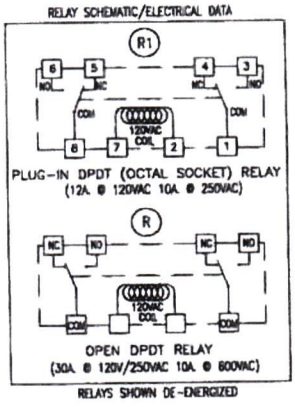
22976

REV	DESCRIPTION

LEGEND		
EQUIPMENT DESIGNATION	DESCRIPTION	REMARKS
A1	ALARM BELL FOR DRY CHEMICAL	
DCC	DRY CHEMICAL MINIATURE SWITCH	
EN1	6" x 6" x 4" NEMA 3R ENCLOSURE	
LC1	NEMA 3R CIRCUIT BREAKER LOAD CENTER 1 PHASE, 3 WIRE, 120/240VAC, 125 AMP	
R1	RELAY DP DT	



RELAY SCHEMATIC/ELECTRICAL DATA



RELAYS SHOWN DE-ENERGIZED

208/120 VAC 1 PHASE

AMP / KVA LOAD	
MAX LINE AMPS	0.14
TOTAL KVA LOAD	0.02

NOTES: UNLESS OTHERWISE SPECIFIE

1. ALL WIRE IS THHN INSULATED
2. ALL WIRE IS 12 AWG
3. ALL WIRE IN 1/2" IMC CONDU
4. ALL WIRE IN 1/2" ALUMINUM I CONDUIT (EXTERIOR)

ALL WIRING FIXTURES AND EQUIPMENT TO BE UL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS ± 1/16 DECIMALS ± .06 ± .031 ANGLES ± 3°

MATERIALS:

FIN NUMBER:

APPROVALS	DATE
DRAWN BY: KDK	7/20/98
CHECKED BY:	
MFG. SSI	
NEXT ASSY:	
DO NOT SCALE DRAWING	

SAF STO

W

2408-

SIZE B | DRAWING NO E2

SCALE 1/40 | FIL

DA2001E

...ICRETE

...crete shall be air-entrained to 4-6%. Admixtures containing ... not be added to the concrete. Concrete shall ... of 2,000 psi.

...forcing bars shall conform to ... Lap splices shall be 20" in length for #4 bars.

...ded Wire Fabric (WWF) shall conform ... be lapped a min. of 8" at splices.

...-on-grade shall be built over a 4" ... over a 6 mil polyethylene vapor barrier, unless ...

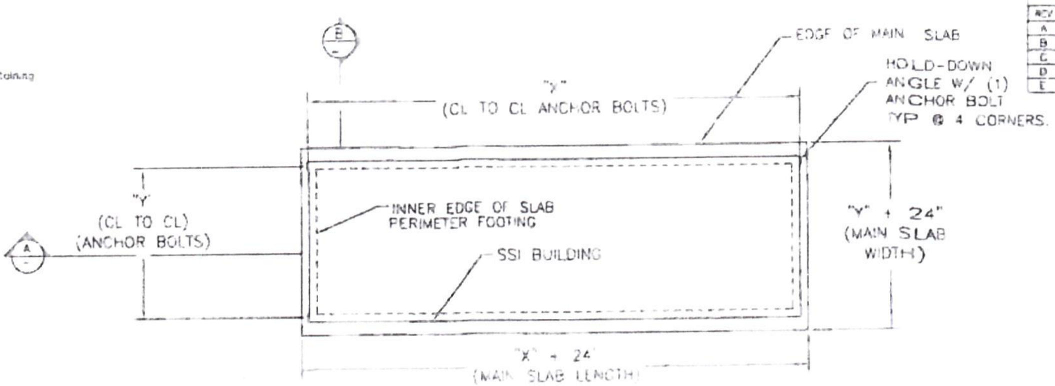
...- Footings shall bear on natural undisturbed ... with a min. allowable bearing capacity of ...

Slab-on-grade shall bear on natural undisturbed ... with a min. allowable bearing capacity of 2000 ... slabs-on-grade are less than 2'-0" above ... soil, they may be constructed on up to 2'-0" ... regate, such as #57 stone, in lieu of tested ... igned as structural slabs.

...- Concrete finish shall be Smooth-Trowel ... " in 10'-0") for foundation pad.

...rack control joints shall be cut in concrete ... after concrete is placed.

REV	DESCRIPTION
A	INITIAL RELEASE
B	REVISE TEXT, CHAMFER GROUT, F...
C	REMOVE REF TO UBC ON NC...
D	REMOVE REF TO NBC ON NC...
E	REVISE NOTICE NOTE



FOUNDATION PAD PLAN

A307 7/8"ø ...
WITH 7" EM...
USING SET...

FORCE	AL...
SHEAR (HORIZONTAL)	
TENSION (VERTICAL UPLIFT)	

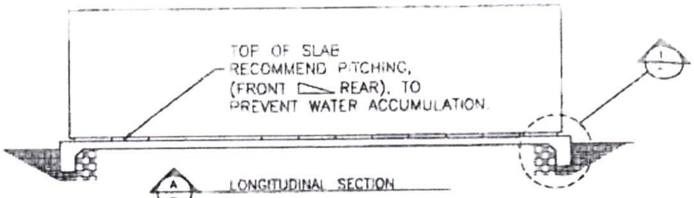
a) THE LISTED LOADS ARE BA... BOLT EMBEDDED IN CONC...

b) INSTALLATION PER MANUFAC...

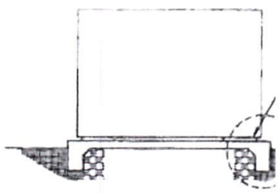
c) ALLOWABLE LOAD BASED O... OF 4 FOR ADHESIVE ANCHO...

d) EDGE DISTANCES AND SPAC... REQUIREMENTS

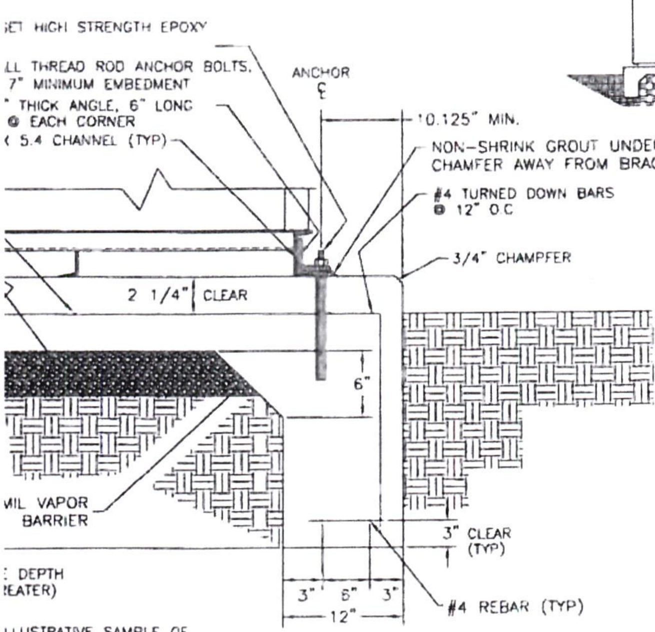
ILLUSTRATIV...



LONGITUDINAL SECTION



TRANVERSE SECTION



ILLUSTRATIVE SAMPLE OF PERIMETER FOOTING DETAIL

NOTICE:

THESE FOUNDATION DETAILS ARE ILLUSTRATIVE ONLY, AND SHALL NOT BE USED AS A BASIS FOR CONSTRUCTION OF AN ACTUAL FOUNDATION.

THE ACTUAL FOUNDATION DESIGN, ANCHOR BOLT SIZE, AND EMBEDMENT IS NOT THE RESPONSIBILITY OF SAFETY STORAGE, INC. AND SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER HIRED BY THE OWNER OR CONTRACTOR, AND LICENSED IN THE STATE WHERE THE BUILDING IS TO BE SITED.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES ± 1"

APPROVALS		DATE
DRAWN BY:	JCG	10/30/00
CHECKED BY	B.HALL	10/30/00
ETC.	SSI	

MATERIALS

NEXT ASSY

DO NOT SCALE DRAWING

SAFET... STORA...

ILLUSTRATIVE SA... FOR 1-BOL...

SIZE D | DRAWING NO. DA20...

SCALE | FILE DA...

LOR GEOTECHNICAL GROUP, INC.
Soil Engineering ▲ Geology ▲ Environmental

PRELIMINARY GEOTECHNICAL INVESTIGATION
SOUTHWEST HOUSEHOLD WASTE
COLLECTION FACILITY
APN 963-070-022
MURRIETA AREA
RIVERSIDE COUNTY, CALIFORNIA

PROJECT NO. 23291.1
SEPTEMBER 2, 2016

Prepared For:

Riverside County Department of Waste Resources
14310 Frederick Street
Moreno Valley, California 92553

Attention: Ms. Sarah N. Lunetta, PE

LOR GEOTECHNICAL GROUP, INC.
Soil Engineering ▲ Geology ▲ Environmental

September 2, 2016

Riverside County Department of Waste Resources
14310 Frederick Street
Moreno Valley, California 92553

Project No. 23291.1.1

Attention: Ms. Sarah N. Lunetta, PE

Subject: Preliminary Geotechnical Investigation, APN 963-070-022, Southwest Household Waste collection facility, Murrieta Area, Riverside County, California.

LOR Geotechnical Group, Inc. is pleased to present this report summarizing our geotechnical investigation for the proposed household hazardous waste collection facility project to be located within Assessor's Parcel Number 963-070-022 in the Murrieta area of Riverside County, California. This report was based upon a scope of services generally outlined in our Proposal dated June 6, 2016 and other written and verbal communications with you.

In summary, it is our opinion that the site can be developed from a geotechnical perspective, provided the recommendations presented in the attached report are incorporated into design and construction. The following executive summary reviews some of the important elements of the project, however, this summary should not be solely relied upon.

To provide adequate support for the proposed structures, we recommend that a compacted fill mat be constructed beneath footings and slabs. The compacted fill mat will provide a dense, high-strength soil layer to uniformly distribute the anticipated foundation loads over the underlying soil materials. All undocumented fill material and any loose alluvial materials should be removed from areas to receive engineered compacted fill. The data developed during this investigation indicates that removals of approximately 2 to 3 feet below existing grades will be required within the currently planned structural areas and structural fill areas.

Low expansive soils and a negligible sulfate content soils were encountered on the site. Very low to no absorption characteristics were found during our infiltration testing.

LOR Geotechnical Group, Inc.

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PAGE NO.

INTRODUCTION

During August of 2016, a Preliminary Geotechnical Investigation was performed by LOR Geotechnical Group, Inc., for proposed development of the approximately 5 acre property, APN 963-070-022, in the Murrieta area of Riverside County, California. The purpose of this investigation was to provide a technical evaluation of the geologic setting of the site and to provide geotechnical design recommendations for the proposed development. The scope of our services included:

- Review of available geotechnical literature, reports, maps, and agency information pertinent to the study area;
- Geologic field reconnaissance mapping to verify the areal distribution of earth units and significance of surficial features as compiled from documents, literature, and reports reviewed;
- A subsurface field investigation to determine the physical soil conditions pertinent to the proposed development;
- Infiltration of the near surface soils via the double ring infiltrometer method;
- Laboratory testing of selected soil samples obtained during the field investigation;
- Development of geotechnical recommendations for site grading and foundation design; and
- Preparation of this report summarizing our findings, and providing conclusions and recommendations for site development.

The approximate location of the site is shown on the attached Index Map, Enclosure A-1, within Appendix A.

To orient our investigation at the site, Conceptual Layout, prepared by your firm, dated June 2, 2016, was furnished for our use. This plan indicated the site is proposed to be developed with an office, covered storage area, restroom, drive isles, and associated landscape and hardscape improvements. A copy of this plan is presented on Enclosure A-2, in Appendix A.

PROJECT CONSIDERATIONS

Information furnished to this firm indicates the project will consist of the construction of an office, restroom, covered storage area, and associated improvements. Although specific information pertaining to the types of structures that will be constructed was unavailable at this time, they are anticipated to be one story and of wood or metal frame construction with plaster veneer exterior. Light to moderate foundation loads are anticipated with such structures. Grading plans were also not available at this time. Given the overall, relatively flat to gently rolling topography of the site, it is likely that minimal cuts and fills will be necessary.

EXISTING SITE CONDITIONS

The subject 5-acre site is located at the southwest terminus of Penfield Lane in the Murrieta area of Riverside County, California. With exception to a water well located along the central portion of the northern site boundary, the site was vacant. Vegetation was sparse as the site was recently disced for weed abatement. The topography of the site is relatively planar with a very gentle fall to the southwest.

Commercial/light industrial properties border the site on the west, north, and east. The property to the south was similar to the site as vacant land.

SUBSURFACE FIELD INVESTIGATION

Our subsurface field exploration program was conducted on August 18, 2016 and consisted of advancing 2 exploratory borings using a track mounted CME 55 drill rig equipped with 8-inch diameter hollow stem augers. The borings were drilled to depths ranging from approximately 21.5 to 51.5 feet below the existing ground surface. Relatively undisturbed in-place and bulk samples of the materials encountered were obtained and returned to our geotechnical laboratory for further testing and evaluation. Samples of the encountered materials were obtained and returned to our geotechnical laboratory in sealed containers for further testing and evaluation. The approximate locations of our exploratory borings are presented on the attached Site Plan, Enclosure A-2, Appendix A.

Logs of the subsurface conditions encountered in the exploratory borings were maintained by a geologist from this firm. A detailed description of the field exploration program and boring logs is presented in Appendix B.

LABORATORY TESTING PROGRAM

Selected soil samples obtained during the field investigation were subjected to laboratory testing to evaluate their physical and engineering properties. Laboratory testing included in-place moisture content and dry density, laboratory compaction characteristics, direct shear, sieve analysis, sand equivalent, expansion index, Atterberg limits, R-value, and soluble sulfate content. A detailed description of the laboratory testing program and the test results are presented in Appendix C.

GEOLOGIC CONDITIONS

Regional Geologic Setting

The site is situated within the Peninsular Ranges Geomorphic Province of southern California. This province incorporates several northwest trending mountain ranges, such as the Santa Ana and San Jacinto Mountains, which run from near Los Angeles to the southwest into the Baja California Peninsula. Lying in-between the larger mountain ranges are a series of valleys and basins, such as the Elsinore, Domenigoni and French Valleys. French Valley is a fairly linear, northeast to southwest trending basin that directs runoff southwest toward Temecula and Temecula Creek. To the northeast, this valley is incorporated as part of the relatively flat Perris Plain, which extends to the San Jacinto Mountains. While the floor of the Perris Plain is relatively flat, it is dotted with small erosional remnant hills, consisting predominately of intrusive igneous crystalline bedrock and very old metamorphic rocks.

The site and vicinity is located within an area predominantly underlain by Mesozoic metamorphic and granitic rocks. The site is situated within an area where Quaternary age alluvial materials have developed within the low-lying areas between the local hills.

The closest known active earthquake fault, in relation to the site, is the Elsinore fault, which is located approximately 10 kilometers (6.2 miles) to the southwest. The site

location as it lies within its regional geologic setting and as mapped by the U.S.G.S. is presented on Enclosure A-3.

Site Geologic Conditions

The subject site is underlain by surfical fill materials which in turn are underlain by older alluvial materials. Although not encountered during our subsurface investigation, metamorphic bedrock, mainly consisting of low grade schist, and/or intrusive igneous rock likely underlies the site at depth and these bedrock materials are noticeable in the nearby hills. The earth materials encountered during our site investigation are described briefly below and are described in detail on the Boring Logs within Appendix B.

Fill: As noted during our site investigation, the site is underlain by fill materials from the surface to a depth of approximately 2 feet. These materials are believed to be the native older alluvial materials which have been disturbed, in part, by grading of the adjacent properties and/or weed abatement practices at the site. These materials were noted to consist of dry, loose, clayey sand. Expansion index testing performed on the fill materials indicates that these soils have a low potential for expansion. Details of this testing is presented within Appendix C.

Older Alluvium: Older alluvium was found underlying the fill materials noted above at depths of approximately 2 feet to the total depth explored of approximately 51.5 feet. In general, the older alluvium consists of clayey sand in the upper approximately 5 feet becoming silty sand/sandy silt, sandy silt, and lean clay with sand beneath. A relatively thin, on the order of 1 foot thick, granular layer of well graded sand was encountered at a depth of approximately 34 feet. This thin layer was wet and indicated perched groundwater. The units both above and below this thin, granular layer were not wet. The older alluvium is medium dense in the upper approximately 5 feet and becomes hard/very dense to very hard/very dense beneath with depth. These materials were typically red-brown to yellow-brown, damp to moist, and contained some secondary calcite within the fine grained units.

Groundwater Hydrology

Groundwater was encountered within our deeper exploratory boring B-1 at a depth of approximately 34 feet. This groundwater is considered to be perched within a granular layer at that depth which was sandwiched between fine grained, unsaturated layers.

Records for nearby wells which were readily available from the State of California Department of Water Resources online database and the Western Municipal Water District (WMWD) Cooperative Well Measurement Program (WMWD, 2016) were reviewed as a part of this investigation.

According the State of California Department for Water resources online database, a few wells lie within the immediate area of the site. However, each well record was for one measurement in 1968. These measurements were listed as approximately 30 feet beneath the ground surface in those wells. One of these wells was located within the natural drainage to the southwest of the site and listed a depth of approximately 10 feet.

According the WMWD database, no wells lie within the immediate area of the site.

As previously noted, an existing well was noted at the site. However, the depth of water was not available. A measurement could not be taken due to an obstruction.

Surface Runoff

Current surface runoff of precipitation waters across the site is largely from the northeast to the southwest.

Mass Movement

The majority of the site consists of relatively flat surfaces with gently sloping areas in between. Considering the overall flatness of the property, the potential for mass movement failures such as landslides or debris flows is considered very low. In addition, no loose, un-rooted rocks that could fall or topple were noted to be present above the site and the potential for rockfalls occurring at the site is also considered to be nil.

Faulting

No active or potentially active faults are known to exist at the subject site. In addition, the subject site does not lie within a current State of California Earthquake Fault Zone (Hart and Bryant, 1997). No active faults are identified by the Riverside Land Information System online database (RCLIS, 2016). No evidence of faulting was noted during our field reconnaissance nor during our review of aerial photographs covering the property and immediate surrounding region. The closest known active fault is the Murrieta Hot Springs fault zone, located approximately 3.7 kilometers (2.3 miles) to the south.

A study conducted by the California Division of Mines and Geology in 1977 (Kennedy) indicated the presence of a fault crossing approximately 3.7 kilometers (2.3 miles) south of the site in an east-west direction. This fault was originally mapped in this general location by Mann (1955) and named by Kennedy in the later study. Kennedy concluded that this fault cuts the Pauba Formation, which is thought to be of Late Pleistocene age (about 11,000 to 700,000 years), but was capped by alluvial and colluvial materials of Holocene age (less than 11,000 years), thus indicating a "potentially-active" rating by State of California standards. This most likely explains the reason that this fault was excluded from the State Earthquake Fault Zone maps, which include only well defined active faults. A slightly more recent unpublished study conducted by the firm of Leighton and Associates (1988) for the Murrieta Hot Springs golf course, located approximately 2.9 kilometers (1.8-miles) to the southwest, reported this as an active fault which cuts younger alluvial materials.

A study in 1990 by Hull postulated that the Murrieta Hot Springs fault is "riedel" shearing from movement along the Elsinore fault zone, and thus may accommodate only a small component of the total movement within the Elsinore fault zone, which is currently thought to be on the order of 6mm/year. Hull therefore utilized a slip rate of 0.6 -2 mm/year for the Murrieta Hot Springs fault. To date, the State of California has not reclassified this fault as an active fault and it is therefore not included on the more recent State fault zone maps (CDMG, 1997).

Therefore it appears that, while very little data is known about this feature, the closest active fault to the site is the Murrieta Hot Springs fault situated just offsite on the adjacent property to the south

Other faults in the region include the Elsinore fault zone, located approximately 9.5 kilometers (5.9 miles) to the southwest, the San Jacinto fault located approximately 24 kilometers (15 miles) to the northeast, and the San Andreas fault approximately 52 kilometers (32 miles) to the northeast.

The Elsinore fault zone is one of the largest in southern California. At its northern end it splays into two segments and at its southern end it is cut by the Yuba Wells fault. The primary sense of slip along the Elsinore fault is right lateral strike-slip. It is believed that the Elsinore fault zone is capable of producing an earthquake magnitude on the order of 6.5 to 7.5.

The San Jacinto fault zone is a sub-parallel branch of the San Andreas fault zone, extending from the northwestern San Bernardino area, southward into the El Centro region. This fault has been active in recent times with several large magnitude events. It is believed that the San Jacinto fault is capable of producing an earthquake magnitude on the order of 6.5 or greater.

The San Andreas fault is considered to be the major tectonic feature of California, separating the Pacific plate and the North American plate. While estimates vary, the San Andreas fault is generally thought to have an average slip rate on the order of 24mm/yr and capable of generating large magnitude events on the order of 7.5 or greater.

Recent standards of practice have included a discussion of all potential earthquake sources within a 100 kilometer (62 mile) radius. However, while there are other large earthquake faults within a 100 kilometer (62 mile) radius of the site, none of these are considered as relevant to the site as the faults described above, due to their greater distance and/or smaller anticipated magnitudes.

Historical Seismicity

In order to obtain a general perspective of the historical seismicity of the site and surrounding region, a search was conducted for seismic events at and around the area within various radii. This search was conducted utilizing the historical seismic search program by EPI Software, Inc. (Reeder, 2000). This program conducts a search of a user selected cataloged seismic events database, within a specified radius and selected magnitudes, and then plots the events onto an overlay map of known faults.

For this investigation the database of seismic events utilized by the EPI program was obtained from the Southern California Seismic Network (SCSN) available from the Southern California Earthquake Center. At the time of our search the data base contained data from January 1, 1932 through December, 2010.

In our first search, the general seismicity of the region was analyzed by selecting an epicenter map listing all events of magnitude 4.0 and greater, recorded since 1932, within a 100 kilometer (62 mile) radius of the site, in accordance with guidelines of the California Division of Mines and Geology. This map illustrates the regional seismic history of moderate to large events. As depicted on Enclosure A-4, within Appendix A, the site lies within a relatively active region associated with the Elsinore fault zone trending southeast to northwest. Of these events, the closest was a magnitude 4.0 located approximately 14 kilometers northeast of the site.

In the second search, the micro seismicity of the area lying within a 10 kilometer (6.2 mile) radius of the site was examined by selecting an epicenter map listing events on the order of 0.0 and greater since 1978. In addition, only the "A" events, or most accurate events were selected. Caltech indicates the accuracy of the "A" events to be approximately 1 km. The result of this search is a map that presents the seismic history around the area of the site with much greater detail, not permitted on the larger map. The reason for limiting the events to the last approximately 38 ± years on the detail map is to enhance the accuracy of the map. Events recorded prior the mid 1970's are generally considered to be less accurate due to advancements in technology. As depicted on this map, Enclosure A-5, the Elsinore fault zone appears to be the source of numerous events. The clusters of events located about five to ten kilometers northeast of the site are believed to be associated with blasting that took place during construction of Diamond Valley Lake and its dams.

In summary, the historical seismicity of the site entails numerous small to medium magnitude earthquake events occurring around the subject site, predominately associated with the presence of the faults described within. Any future developments at the subject site should anticipate that moderate to large seismic events could occur very near the site.

Secondary Seismic Hazards

Other secondary seismic hazards generally associated with severe ground shaking during an earthquake include liquefaction, seiches and tsunamis, earthquake induced flooding, landsliding and rockfalls, and seismic-induced settlement.

Liquefaction: The potential for liquefaction generally occurs during strong ground shaking within granular, loose sediments where the depth to groundwater is usually less than 50 feet. As the site is underlain at depth by hard/very dense to very hard/very dense, older alluvium, the upper, loose alluvial soils are anticipated to be replaced with compacted fill, and the locally encountered groundwater within the alluvium at the site is considered to be perched, the possibility of liquefaction at the site is considered to be very low to nil.

Seiches/Tsunamis: The potential for the site to be affected by a seiche or tsunami (earthquake generated wave) is considered nil due to absence of any large bodies of water very near the site.

Flooding (Water Storage Facility Failure): Lake Skinner and Diamond Valley Lake are both large water storage facilities located approximately 4.6 kilometers (2.9 miles) to the east of the site and approximately 9.7 kilometers (6 miles) to the northeast. It is conceivable that the west dams for these lakes could possibly rupture during an earthquake and affect the site by flooding. The actual potential for this event should be evaluated by the project civil engineer.

Seismically-Induced Landsliding: Due to the relatively flat-lying nature of the site and adjacent surrounding region, and the lack of evidence for the existence of landslides in these areas, the potential for landslides to occur at or adjacent to the site is considered to be very low to nil.

Rockfalls: The site lies outside of the limits of any potential rock fall areas that could affect the integrity of the site and the rock fall potential is considered to be nil.

Seismically-Induced Settlement: Settlement generally occurs within areas of loose, granular soils with relatively low density. Since the site is underlain by hard/very dense to very hard/very dense older alluvium and the earthwork operations anticipated to be

conducted during the development of the site will mitigate any near surface loose soil conditions, the potential for settlement is considered low.

SOILS AND SEISMIC DESIGN CRITERIA (2013 California Building Code)

Section 1613 of Chapter 16 of the 2013 California Building Code (CBC) contains the procedures and definitions for the calculations of the earthquake loads on structures and non structural components that are permanently attached to structures and their supports and attachments.

It should be noted that the classification of use and occupancy of all proposed structures at the site, and thus design requirements, shall be the responsibility of the structural engineer and the building official.

CBC Earthquake Design Summary

The following earthquake design criteria have been formulated for the site utilizing the source referenced above.

However, these values should be reviewed by the building official (Risk Category) and structural engineer and the final design should be performed by a qualified structural engineer familiar with the region.

CBC 2013 SEISMIC DESIGN SUMMARY (ASCE 7-10)* Site Location (USGS WGS84) 33.5886, -117.1221, Risk Category III	
Site Class Definition Chapter 20 ASCE 7	D
S_s Mapped Spectral Response Acceleration at 0.2s Period, (Figure 1613.3.1(1))	1.585
S_1 Mapped Spectral Response Acceleration at 1s Period, (Figure 1613.3.3(2))	0.674
F_a Short Period Site Coefficient at 0.2s Period, (Table 1613.3.3(1))	1.0
F_v Long Period Site Coefficient at 1s Period,(Table 1613.3.3(2))	1.5
S_{MS} Adjusted Spectral Response Acceleration at 0.2s Period, (eq .16-37)	1.585
S_{M1} Adjusted Spectral Response Acceleration at 1s Period, (eq .16-38)	1.011
S_{DS} Design Spectral Response Acceleration at 0.2s Period,(eq .16-39)	1.057
S_{D1} Design Spectral Response Acceleration at 1s Period, (eq .16-40)	0.674

CBC 2013 SEISMIC DESIGN SUMMARY (ASCE 7-10)* Site Location (USGS WGS84) 33.5886, -117.1221, Risk Category III	
Seismic Design Category - Short Period (Table 1613.3.5(1))	D
Seismic Design Category - Long Period (Table 1613.3.5(2))	D
*Values obtained from U.S.G.S. online U.S. Seismic Design Maps tool	

INFILTRATION TESTING AND TEST RESULTS

Two double ring infiltration tests were conducted at each of the two locations illustrated on Enclosure A-2. A test pit was excavated to a depth of approximately 4 and 8-inches below the existing ground surface and a 12-inch diameter casing was installed within the center of the test locations with a 24-inch diameter casing centered around it. Each casing was imbedded to a depth of approximately 3 to 4 inches. These liners extended approximately 16 to 17-inches above the bottom of the test location. The test location was tested immediately after the casings were installed by filling both the inside and outside casings and maintaining a water level to a depth of approximately 3.0-inches.

The testing procedure was as follows:

Both the inside and outside areas of the casings were filled with water to a level of approximately 3.0-inches above the ground surface. Water was then metered to maintain this water level within both rings. The volume of water use in a given time period was recorded at various time intervals to establish the infiltration rate of the inner ring. See the attached Infiltration Test Data sheets, Enclosures D-1 and D-2 within Appendix D for the test information and measurements.

The infiltration rate is measured as the drop in water level compared to the permeability of the bottom surface area soils in the bottom of the test hole. If casing is not used, the water column in the test hole is allowed to seep into both the bottom and sidewalls of the hole, for which the drop in water level must be corrected and reduced for the volume of water seeping into the sidewall and for the diameter of the test hole. As described above, the tests described herein were conducted using a 12-inch diameter inner casing and 24-inch diameter outer casing.

The test holes were found to have the following measured clear water infiltration rates:

Infiltration Test No.	Infiltration Rate*	
	gal/sf/day	in/hr
DRI-1	10.8	0.7
DRI-2	0	0
* Final reading		

The clear water percolation rate obtained in our test locations was 0 to 0.7 inches per hour.

Our infiltration test data indicates very poor to no absorption characteristics of the soils tested.

CONCLUSIONS

General

This investigation provides a broad overview of the geotechnical and geologic factors which are expected to influence future site planning and development. On the basis of our field investigation and testing program, it is the opinion of LOR Geotechnical Group, Inc. that the proposed development is feasible from a geotechnical standpoint, provided the recommendations presented in this report are incorporated into design and implemented during grading and construction.

The subsurface conditions encountered in our exploratory borings are indicative of the locations explored. The subsurface conditions presented here are not to be construed as being present the same everywhere on the site. If conditions are encountered during the construction of the project which differ significantly from those presented in this report, this firm should be notified immediately in order that we may assess the impact to the recommendations provided.

Foundation Support

Based upon the field investigation and test data, it is our opinion that the surficial layers of existing alluvial materials that cover the site will not, in their present conditions, provide uniform and/or adequate support for the proposed structures. However, the removal and recompaction of existing on-site soils will be an acceptable solution.

To provide adequate support for the proposed structures, we recommend that a compacted fill mat be constructed beneath footings and slabs. This compacted fill mat will provide a dense, high-strength soil layer to uniformly distribute the anticipated foundation loads over the underlying soils. In addition, the construction of this compacted fill mat will allow for the removal of the existing unsuitable alluvial materials within the building pad areas.

Soil Expansiveness

As noted by our explorations and testing, the majority of the site surficial soils consist of clayey sand with a low expansion potential. Therefore, mitigation measures for expansive soils are anticipated to be necessary at the site. These measures are described in the Foundation Design, Building Area Slab-on-Grade, and Exterior Flatwork sections of this report

Careful evaluation of on-site soils and any import fill for their expansion potential should be conducted during the grading operation.

Geologic Mitigations

No special geologic mitigation methods other than the geotechnical recommendations provided in the following sections are deemed necessary at this time.

Seismicity

Seismic ground rupture is generally considered most likely to occur along pre-existing active faults. Since no known faults are known to exist at or project into the site, the probability of ground surface rupture occurring at the site is considered nil.

Due to the site's close proximity to the fault zones described above, it is reasonable to expect a strong ground motion seismic event to occur during the lifetime of the proposed development on the site. Large earthquakes could occur on other faults in the general area, but because of their lesser anticipated magnitude and/or greater distance, they are considered less significant than the Elsinore fault zone from a ground motion standpoint.

The effects of ground shaking anticipated at the subject site should be mitigated by the seismic design requirements and procedures outlined in Chapter 16 of the California Building Code. However, it should be noted that the current building code requires the minimum design to allow a structure to remain standing after a seismic event, in order to allow for safe evacuation. A structure built to code may still sustain damage which might ultimately result in the demolishing of the structure (Larson and Slosson, 1992).

RECOMMENDATIONS

General Site Grading

It is imperative that no clearing and/or grading operations be performed without the presence of a qualified geotechnical engineer. An on-site, pre-job meeting with the developer, the contractor, and geotechnical engineer should occur prior to all grading related operations. Operations undertaken at the site without the geotechnical engineer present may result in exclusions of affected areas from the final compaction report for the project.

Grading of the subject site should be performed in accordance with the following recommendations as well as applicable portions of the California Building Code, and/or applicable local ordinances.

All areas to be graded should be stripped of significant vegetation and other deleterious materials. These materials should not be incorporated within engineered compacted fill. It is our recommendation that any existing undocumented fills that may be present be removed and replaced as engineered compacted fill. This pertains to all grading areas including proposed flatwork and/or paved areas. If this is not done, premature structural distress (settlement) of the flatwork and pavement may occur.

Cavities created by removal of subsurface obstructions should be thoroughly cleaned of loose soil, organic matter and other deleterious materials, shaped to provide access for construction equipment, and backfilled as recommended in the following Engineered Compacted Fill section of this report.

If the existing, on-site water well is proposed to be abandoned, it should be done so in accordance with jurisdictional agency requirements.

Initial Site Preparation

All undocumented fill material and any loose alluvial materials should be removed from structural areas and areas to receive engineered compacted fill. The data developed during this investigation indicates that removals on the order of approximately 2 to 3 feet will be required from currently planned structural areas. The actual depths of alluvial removals should be verified during the grading operation by observation and/or in-place density testing. Removals should expose alluvial materials with a relative in-situ compaction of at least 85 percent and/or an in-situ saturation of at least 85 percent.

Preparation of Fill Areas

Prior to placing fill, the surfaces of all areas to receive fill should be scarified to a depth of at least 6 inches. The scarified soil should be brought to near optimum moisture content and recompacted to a relative compaction of at least 90 percent (ASTM D 1557).

Preparation of Building Pad Areas

All footings should rest entirely upon a minimum of 24 inches of properly compacted fill material placed over competent native soils. In areas where the required fill thickness is not accomplished through the removal of the existing fill and/or loose native soils, the footing areas should be further subexcavated to a depth of at least 24 inches below the proposed footing base grade, with the subexcavation extending at least 5 feet beyond the footing lines. Where removals in excess of 5 feet deep are required, the removal areas should extend laterally at a 1:1 ratio. The bottom of this excavation should then be scarified to a depth of at least 6 inches, brought to near optimum moisture content, and recompacted to at least 90 percent relative

compaction (ASTM D 1557) prior to refilling the excavation to grade as properly compacted fill.

Engineered Compacted Fill

All fill materials should be free from organic matter and other deleterious materials. Unless approved by the geotechnical engineer, rock or similar irreducible material with a maximum dimension greater than 6 inches should not be buried or placed in fills.

Import soil materials, if required, should be inorganic, non-expansive granular soils free from rocks or lumps greater than 6 inches in maximum dimension. Sources for import fill should be approved by the geotechnical engineer prior to their use.

Fill should be spread in maximum 8-inch thick, uniform, loose lifts with each lift brought to near optimum moisture content and compacted to a relative compaction of at least 90 percent in accordance with ASTM D 1557. The upper 12 inches of areas to be paved should be compacted to at least 95 percent (ASTM D 1557).

Based upon the relative compaction of the near surface alluvial soils determined during this investigation and the relative compaction anticipated for compacted fill soil, we estimate a compaction shrinkage factor of approximately 10 to 15 percent. These values are for estimating purposes only, and are exclusive of losses due to stripping or the removal of subsurface obstructions. These values may vary due to differing conditions within the project boundaries and the limitations of this investigation. Shrinkage should be monitored during construction. If percentages vary, provisions should be made to revise final grades or adjust quantities of borrow or export.

Careful evaluation of on-site soils and any import fill for their expansion potential should be conducted during the grading operations.

Short-Term Excavations

Following the California Occupational and Safety Health Act (CAL-OSHA) requirements, excavations 5 feet deep and greater should be sloped or shored. All excavations and shoring should conform to CAL-OSHA requirements.

Short-term excavation 5 feet deep and greater shall conform to Title 8 of the California Code of Regulations, Construction Safety Orders, Section 1504 and 1539

through 1547. Based on our exploratory borings and observations, it appears that the alluvial soils can be classified as Type C soils. Deviation from the standard short-term slopes are permitted using option 4, Design by a Registered Professional Engineer (Section 1541.1).

Short-term excavation construction and maintenance are the responsibility of the contractor and should be a consideration of his methods of operation and the actual soil conditions encountered.

Slope Construction

Preliminary data indicates that cut and fill slopes should be constructed no steeper than two horizontal to one vertical. Fill slopes should be overfilled during construction and then cut back to expose fully compacted soil. A suitable alternative would be to compact the slopes during construction, then roll the final slopes to provide dense, erosion-resistant surfaces.

Slope Protection

Since the native materials are susceptible to erosion by running water, measures should be provided to prevent surface water from flowing over slope faces. Slopes at the project should be planted with a deep rooted ground cover as soon as possible after completion. The use of succulent ground covers such as iceplant or sedum is not recommended. If watering is necessary to sustain plant growth on slopes, then the watering operation should be monitored to assure proper operation of the irrigation system and to prevent over watering.

Foundation Design

If the site is prepared as recommended, the proposed residential structures may be safely founded on conventional shallow foundations, either individual spread footings and/or continuous wall footings, bearing on a minimum of 24 inches of engineered compacted fill placed over competent native materials. All foundations should have a minimum width of 12 inches. Footings placed upon very low expansive soils should be established a minimum of 12 inches below lowest adjacent grade. Footings on low expansive soils should be placed a minimum of 18 inches below the lowest adjacent grade.

Footings at least 12 inches wide and embedded a minimum of 12 inches below the lowest adjacent grade may be designed using a maximum soil bearing pressure of 1,800 pounds per square foot (psf) for dead plus live loads. Footings at least 12 to 15 inches wide and placed at least 18 inches below the lowest adjacent final grade could designed for a maximum soil bearing pressure of 2,100 psf for dead plus live loads.

The above values are net pressures; therefore, the weight of the foundations and the backfill over the foundations may be neglected when computing dead loads. The values apply to the maximum edge pressure for foundations subjected to eccentric loads or overturning. The recommended pressures apply for the total of dead plus frequently applied live loads, and incorporate a factor of safety of at least 3.0. The allowable bearing pressures may be increased by one-third for temporary wind or seismic loading. The resultant of the combined vertical and lateral seismic loads should act within the middle one-third of the footing width. The maximum calculated edge pressure under the toe of foundations subjected to eccentric loads or overturning should not exceed the increased allowable pressure. Buildings should be setback from slopes as detailed on the California Building Code.

Resistance to lateral loads will be provided by passive earth pressure and base friction. For footings bearing against compacted fill, passive earth pressure may be considered to be developed at a rate of 300 pounds per square foot per foot of depth. Base friction may be computed at 0.30 times the normal load. Base friction and passive earth pressure may be combined without reduction. These values are for dead load plus live load and may be increased by one-third for wind or seismic loading.

Footings on low expansive soils should be reinforced with a minimum of two # 4 rebars, one near the top and one near the bottom of the footings.

The preceding recommendations to counteract expansive soil activity should be considered minimum and should be revised upon the completion of the site grading. More stringent parameters for design of foundations on expansive soils can be specified by a structural engineer experienced in these matters.

Settlement

Total settlement of individual foundations will vary depending on the width of the foundation and the actual load supported. Maximum settlement of shallow foundations

designed and constructed in accordance with the preceding recommendations are estimated to be on the order of 0.5 inch. Differential settlements between adjacent footings should be about one-half of the total settlement. Settlement of all foundations is expected to occur rapidly, primarily as a result of elastic compression of supporting soils as the loads are applied, and should be essentially completed shortly after initial application of the loads.

Building Area Slab-on-Grade

Concrete floor slabs should bear on a minimum of 24 inches of engineered compacted fill placed over competent native materials. The final pad surfaces should be rolled to provide smooth, dense surfaces upon which to place the concrete.

If low expansive soils are found to exist under slab areas, these areas should be properly pre-soaked prior to pouring concrete. Slab areas should be pre-soaked to approximately 4 percent above the optimum moisture content to a minimum depth of 18 inches. Unless more stringent parameters are given by the structural engineer experienced on expansive soil design, the slab thickness should be a minimum of 4 inches. Minimum slab reinforcement should consist of #3 rebars placed at a maximum spacing of 18 inches on center, each way.

Slabs to receive moisture-sensitive coverings should be provided with a moisture vapor barrier. This barrier may consist of an impermeable membrane. Two inches of sand over the membrane will reduce punctures and aid in obtaining a satisfactory concrete cure. The sand should be moistened just prior to placing of concrete.

The slabs should be protected from rapid and excessive moisture loss which could result in slab curling. Careful attention should be given to slab curing procedures, as the site area is subject to large temperature extremes, humidity, and strong winds.

Exterior Flatwork

To provide adequate support, exterior flatwork improvements should rest on a minimum of 12 inches of soil compacted to at least 90 percent (ASTM D 1557).

If expansive soils are present within flatwork areas, these areas should be pre-soaked prior to pouring concrete to a minimum depth of 18 inches and to approximately 4 percent above the optimum moisture content. All sidewalks, patio slabs, and

driveways with a minimum dimension greater than 5 feet, should be reinforced with #3 rebars placed at a maximum spacing of 18 inches on center, each way. Reinforcement for curbing should be one continuous #4 rebar at top and bottom. In addition, it is recommended that sidewalks, patio slabs, curbs, etc., have a thickness of at least 4 inches, with saw cuts every 10 feet or less. Driveways should be at least 5-inch thick, with saw cuts every 15 feet or less.

Flatwork surface should be sloped a minimum of 1 percent away from buildings and slopes, to approved drainage structures.

Again, these recommendations to counteract low expansive soil activity should be considered minimum and should be reviewed, as necessary, upon the completion of the site grading.

Wall Pressures

The design of footings for retaining wall structures should be performed in accordance with the recommendations described earlier under Preparation of Building Pad Areas and Foundation Design. For design of retaining wall footings, the resultant of the applied loads should act in the middle one-third of the footing, and the maximum edge pressure should not exceed the basic allowable value without increase.

For design of retaining walls unrestrained against movement at the top, we recommend an equivalent fluid density of 40 pounds per cubic foot (pcf) be used. This assumes level backfill consisting of recompacted, non-expansive, native soils placed against the structures and within the back cut slope extending upward from the base of the stem at 35 degrees from the vertical or flatter.

Retaining walls subject to uniform surcharge loads within a horizontal distance behind the structure equal to the structural height should be designed to resist additional lateral loads equal to 0.30 times the surcharge load. Any isolated or line loads from adjacent foundations or vehicular loading will impose additional wall loads and should be considered individually.

As noted before, clayey, expansive soils are present at the site. Since these materials have a very low permeability, very uncertain behavior, and exert much higher lateral earth pressures on earth retaining structures, they should not be used as wall backfills.

To avoid over stressing or excessive tilting during placement of backfill behind walls, heavy compaction equipment should not be allowed within the zone delineated by a 45 degree line extending from the base of the wall to the fill surface. The backfill directly behind the walls should be compacted using light equipment such as hand operated vibrating plates and rollers. No material larger than 3 inches in diameter should be placed in direct contact with the wall.

Wall pressures should be verified prior to construction, when the actual backfill materials and conditions have been determined. Recommended pressures are applicable only to level, properly drained, non-expansive backfill with no additional surcharge loadings. If inclined backfills are proposed, this firm should be contacted to develop appropriate active earth pressure parameters.

Sulfate Protection

The results of the soluble sulfate tests conducted on selected subgrade soils expected to be encountered at foundation levels are presented on Enclosure C. Based on the test results, it appears that there is a negligible to moderate sulfate exposure to concrete elements in contact with the on site soils per the 2013 CBC.

Preliminary Pavement Design

Testing and design for preliminary on-site pavement was conducted in accordance with the California Highway Design Manual. Based upon our preliminary sampling and testing and upon assumed Traffic Indices, it appears that the structural sections tabulated below should provide satisfactory pavements for the subject development:

AREA	T.I.	DESIGN R-VALUE	PRELIMINARY SECTION
Light Vehicular Parking and Drive	5.0	5	0.25'AC/0.80' AB
Moderate Axle Load Truck Traffic	7.0	5	0.30'AC/1.35'AB
AC - Asphalt Concrete AB - Class 2 Aggregate Base			

The above structural sections are predicated upon 90 percent relative compaction (ASTM D 1557) of all utility trench backfills and 95 percent relative compaction (ASTM D 1557) of the upper 12 inches of street subgrade soils.

The above pavement designs were based upon the results of preliminary sampling and testing, and should be verified by additional sampling and testing when the actual subgrade soils are exposed.

Sulfate Protection

The results of the sulfate tests conducted on selected subgrade soils expected to be encountered at foundation levels are presented in Appendix C.

Based on the test results, the sulfate exposures of on-site soils is considered negligible by the CBC. Therefore, no specific recommendations are given for concrete elements to be in contact with on site soils.

Infiltration

Based upon our field investigation and infiltration test data, a clear water absorption rate of 0 to 0.7 inches per hour appears to be applicable for the planned infiltration in the areas and depths tested. A factor of safety of 3 should be applied as indicated by the Riverside County Flood Control and Water Conservation District Design Handbook for Low Impact Development Best Management Practices (2011). Application of this factor would result in a infiltration rate of less than 0.5 inches per hour. Therefore, on site storm water infiltrations within the upper silty soils is not possible.

The program should also incorporate the recommendations contained within this report and any other jurisdictional agency requirements.

Construction Monitoring

Post investigative services are an important and necessary continuation of this investigation. Project plans and specifications should be reviewed by this firm prior to construction to confirm that the intent of the recommendations presented herein have been incorporated into the design. Testing for on-site pavement design should be performed after the site is rough graded. In addition, if clayey soils become more

common than encountered during our subsurface exploration during site grading, additional expansion index testing should be conducted in order to evaluate the impact, if any, to the site development as proposed.

During construction, sufficient and timely geotechnical observation and testing should be provided to correlate the findings of this investigation with the actual subsurface conditions exposed during construction. Items requiring observation and testing include, but are not necessarily limited to, the following:

1. Site preparation-stripping and removals.

2. Excavations, including approval of the bottom of excavation prior to filling.

3. Scarifying and recompacting prior to fill placement.

4. Subgrade preparation for pavements and slabs-on-grade.

5. Placement of engineered compacted fill and backfill, including approval of fill materials and the performance of sufficient density tests to evaluate the degree of compaction being achieved.

6. Foundation excavations, including footings.

TIME LIMITATIONS

The findings of this report are valid as of this date. Changes in the condition of a property can, however, occur with the passage of time, whether they be due to natural processes or the work of man on this or adjacent properties. In addition, changes in the Standards-of-Practice and/or Governmental Codes may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond our control. Therefore, this report should not be relied upon after a significant amount of time without a review by LOR Geotechnical Group, Inc. verifying the suitability of the conclusions and recommendations.

LIMITATIONS

This report contains geotechnical conclusions and recommendations developed solely for use by Riverside County Department of Waste Resources, and their designates for

the purposes described earlier. It may not contain sufficient information for other uses or the purposes of other parties. The contents should not be extrapolated to other areas or used for other facilities without consulting LOR Geotechnical Group, Inc.

The recommendations are based on interpretations of the subsurface conditions concluded from information gained from subsurface explorations, and a surficial site reconnaissance. The interpretations may differ from actual subsurface conditions, which can vary horizontally and vertically across the site. Due to possible subsurface variations, all aspects of field construction addressed in this report should be observed and tested by the project geotechnical consultant.

If parties other than LOR Geotechnical Group, Inc. provide construction monitoring services, they must be notified that they will be required to assume responsibility for the geotechnical phase of the project being completed by concurring with the recommendations provided in this report or by providing alternative recommendations.

The report was prepared using generally accepted geotechnical engineering practices under the direction of a state licensed geotechnical engineer. No warranty, expressed or implied, is made as to conclusions and professional advice included in this report. Any persons using this report for bidding or construction purposes should perform such independent investigations as deemed necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on this project.

CLOSURE

It has been a pleasure to assist you with this project. We look forward to being of further assistance to you as construction begins.

Should you have any questions regarding this report, please do not hesitate to contact this office at your convenience.

Respectfully submitted,
LOR Geotechnical Group, Inc.

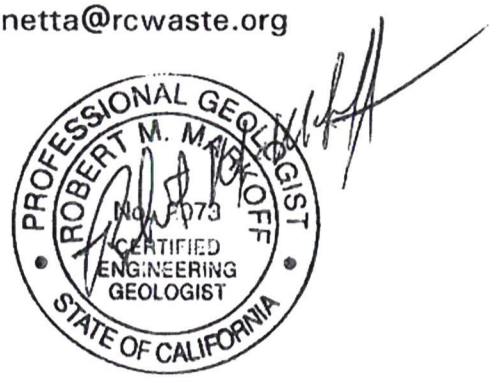
Andrew A. Tardie
Staff Geologist

John P. Leuer, GE 2030
President

Robert M Markoff, CEG 2073
Engineering Geologist

AAT:RMM:JPL:ss

Distribution: Addressee (4)and via email: slunetta@rcwaste.org



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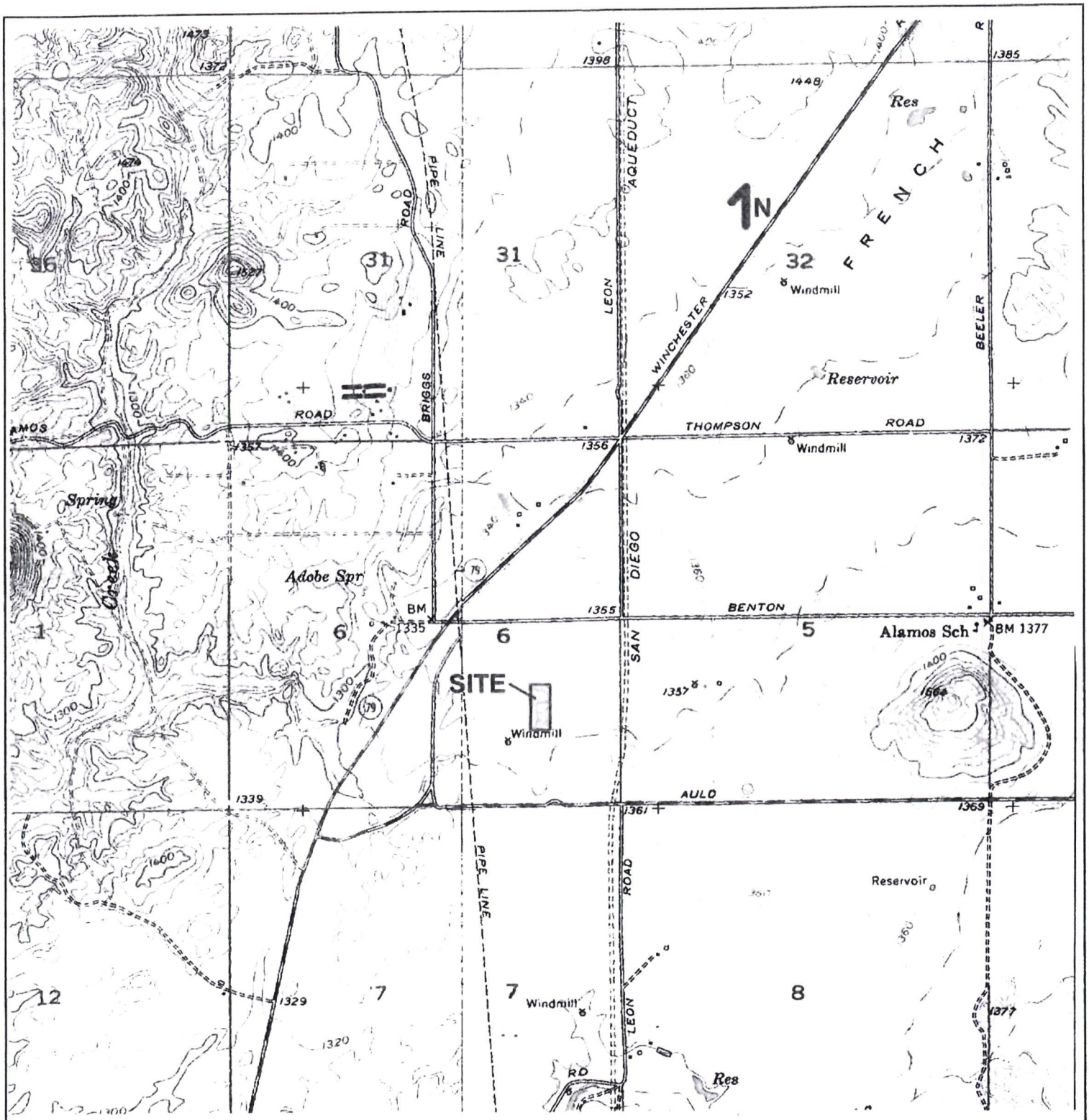
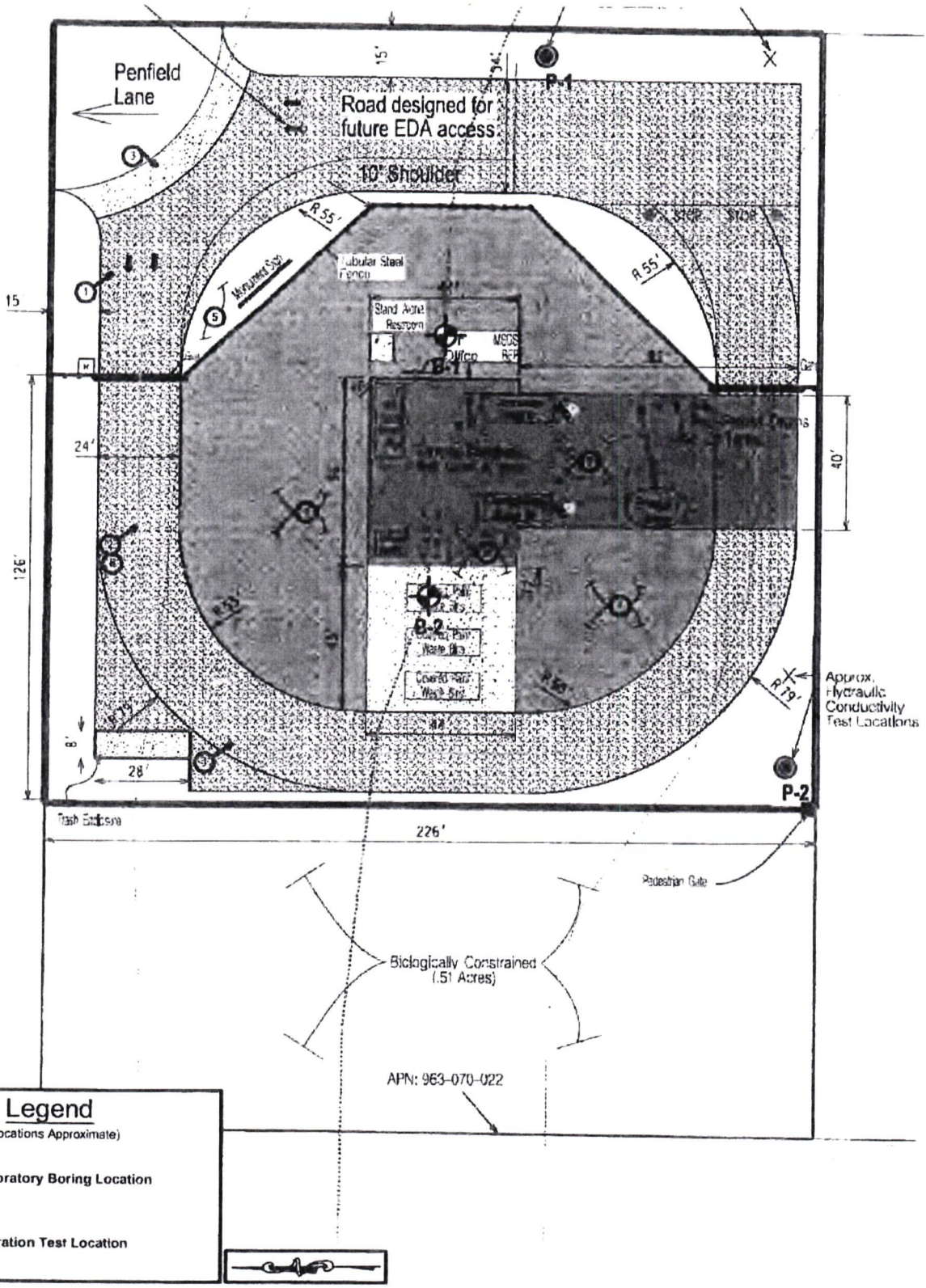
APPENDIX A

Index Map, Site Plan, Regional Geologic Map, and Historical Seismicity Maps



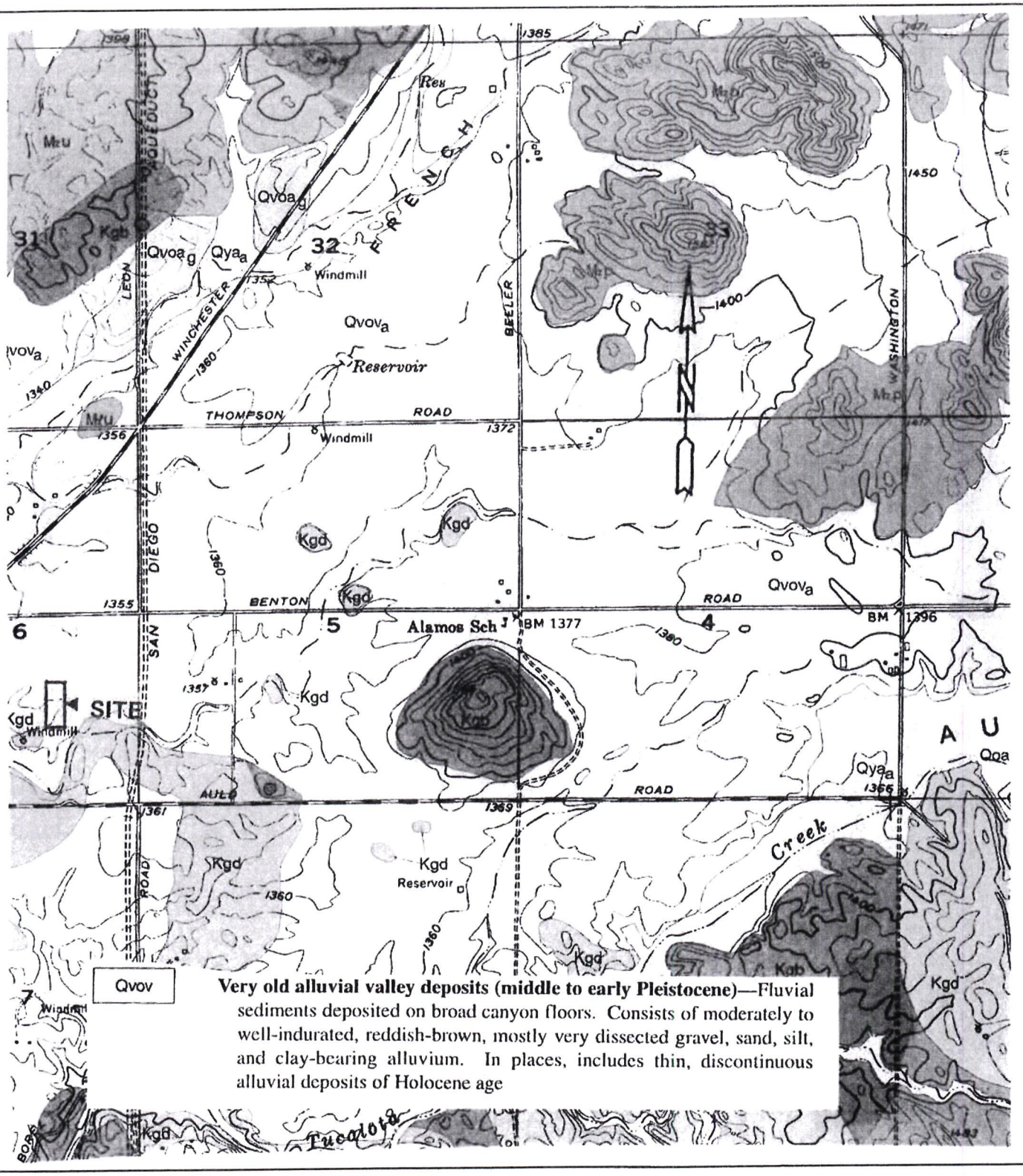
INDEX MAP

PROJECT:	APN 963-070-022, MURRIETA, CA	PROJECT NO.:	23291.1
CLIENT:	RIVERSIDE COUNTY DEPARTMENT OF WASTE RESOURCES	ENCLOSURE:	A-2
LOR Geotechnical Group, Inc.		DATE:	AUGUST 2016
		SCALE:	1"=2,000'



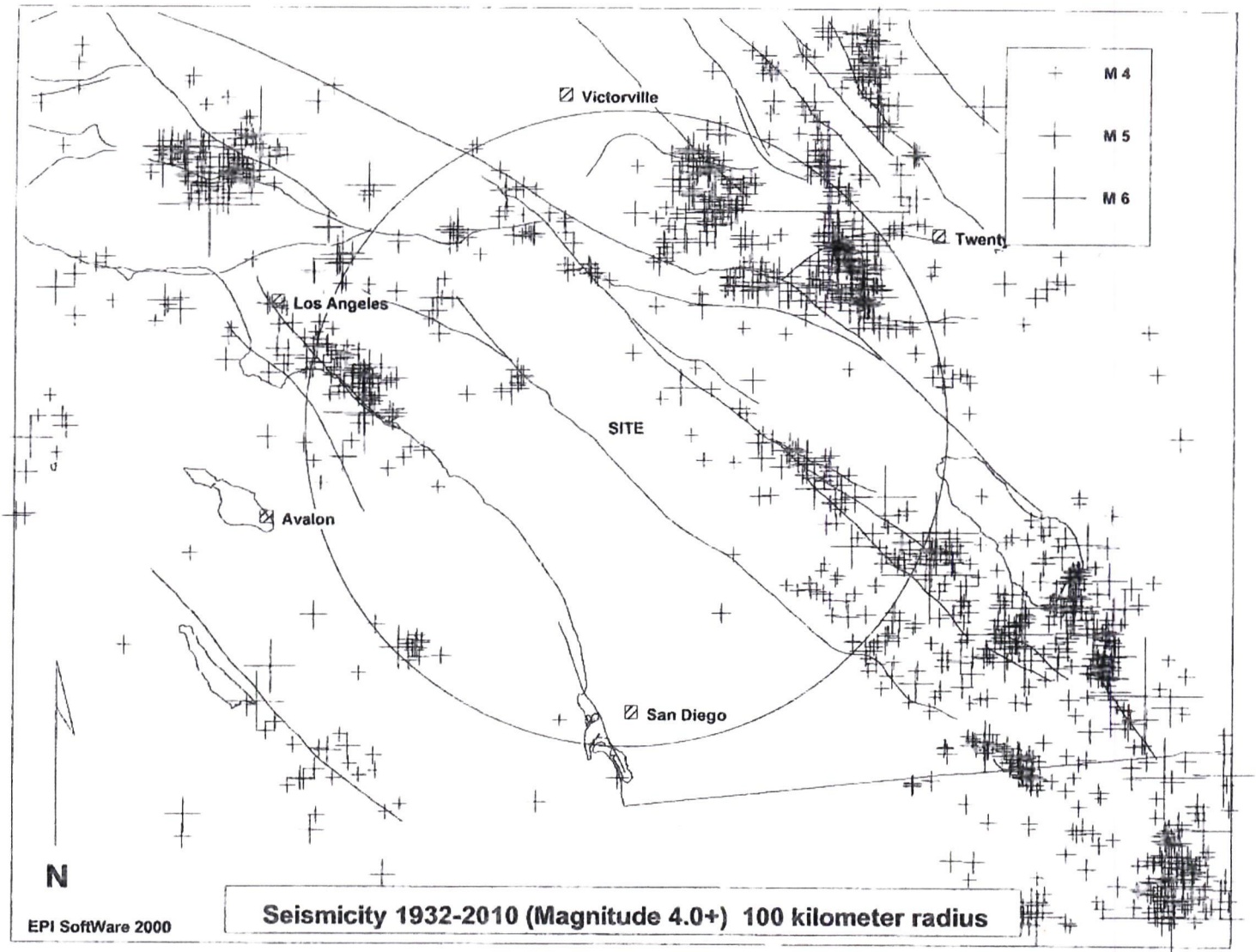
SITE PLAN

PROJECT:	APN 963-070-022, MURRIETA, CA	**PROJECT NO:**	23291.1
CLIENT:	RIVERSIDE COUNTY DEPARTMENT OF WASTE RESOURCES	**ENCLOSURE:**	A-2
LOR Geotechnical Group, Inc.		**DATE:**	AUGUST 2016
		SCALE:	1" ≈ 40'



REGIONAL GEOLOGIC MAP (KENNEDY and Morton, 2003)

PROJECT:	APN 963-070-022, MURRIETA, CA	PROJECT NO.:	23291.1
CLIENT:	RIVERSIDE COUNTY DEPARTMENT OF WASTE RESOURCES	ENCLOSURE:	A-3
LOR Geotechnical Group, Inc.		DATE:	AUGUST 2016
		SCALE:	1"=2,000'



SITE LOCATION: 33.5886 LAT. -117.1221 LONG.

MINIMUM LOCATION QUALITY: C

TOTAL # OF EVENTS ON PLOT: 1489

TOTAL # OF EVENTS WITHIN SEARCH RADIUS: 578

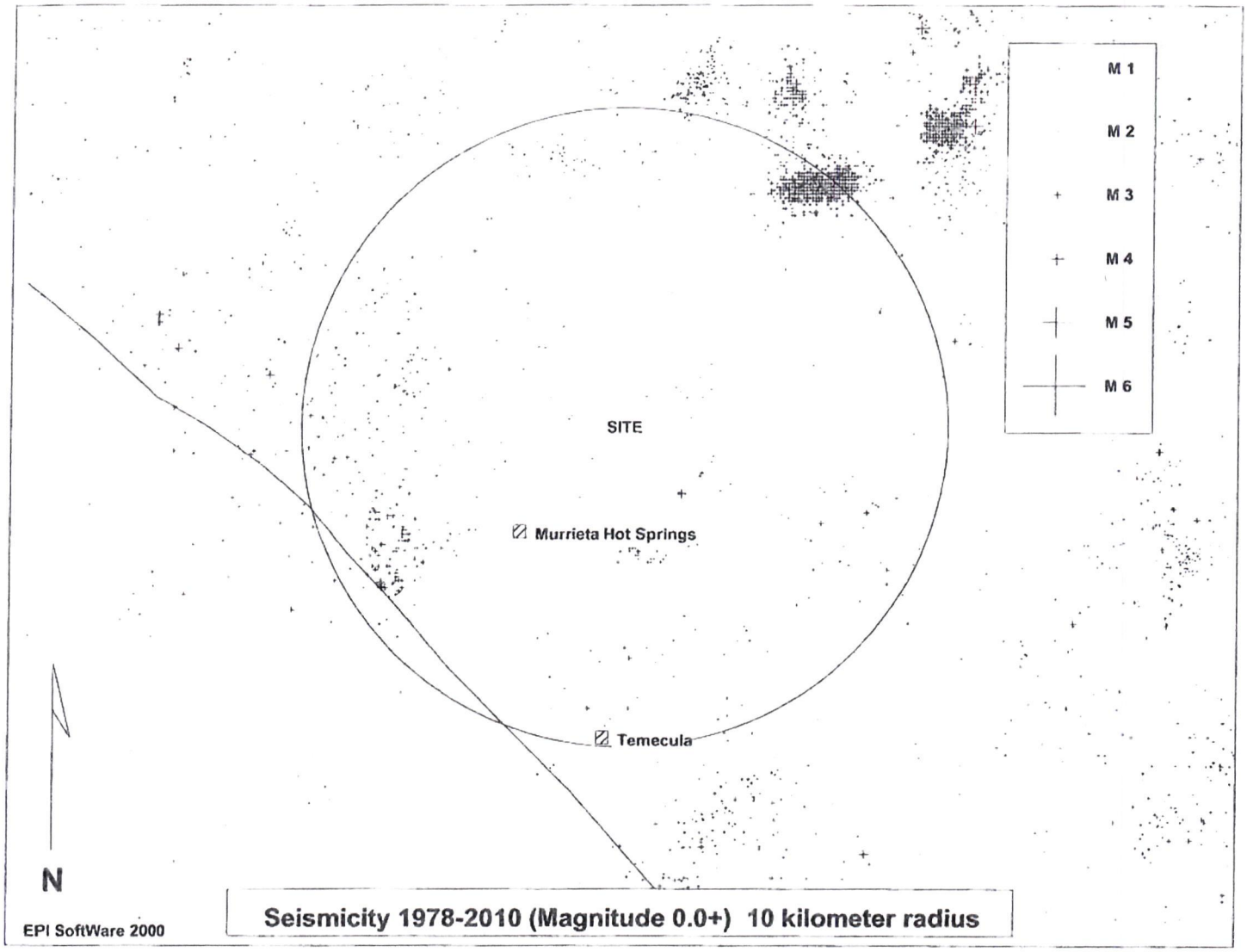
MAGNITUDE DISTRIBUTION OF SEARCH RADIUS EVENTS:

4.0- 4.9 : 524
5.0- 5.9 : 48
6.0- 6.9 : 5
7.0- 7.9 : 1
8.0- 8.9 : 0

CLOSEST EVENT: 4.0 ON SUNDAY, DECEMBER 21, 1997 LOCATED APPROX. 14 KILOMETERS NORTHEAST OF THE SITE

LARGEST 5 EVENTS:

7.3 ON SUNDAY, JUNE 28, 1992 LOCATED APPROX. 92 KILOMETERS NORTHEAST OF THE SITE
6.4 ON SATURDAY, MARCH 11, 193[illegible] LOCATED APPROX. 81 KILOMETERS WEST OF THE SITE
6.3 ON SUNDAY, JUNE 28, 1992 LOCATED APPROX. 73 KILOMETERS NORTHEAST OF THE SITE
6.1 ON THURSDAY, APRIL 23, 199[illegible] LOCATED APPROX. 84 KILOMETERS NORTHEAST OF THE SITE
6.0 ON SATURDAY, DECEMBER 04, 194[illegible] LOCATED APPROX. 85 KILOMETERS NORTHEAST OF THE SITE



SITE LOCATION: 33.5886 LAT. -117.1221 LONG.

MINIMUM LOCATION QUALITY: A

TOTAL # OF EVENTS ON PLOT: 3455

TOTAL # OF EVENTS WITHIN SEARCH RADIUS: 1211

0 5 10
KILOMETERS

MAGNITUDE DISTRIBUTION OF SEARCH RADIUS EVENTS:

0.0- .9 : 150
1.0- 1.9 : 883
2.0- 2.9 : 173
3.0- 3.9 : 5
4.0- 4.9 : 0
5.0- 5.9 : 0
6.0- 6.9 : 0
7.0- 7.9 : 0
8.0- 8.9 : 0

CLOSEST EVENT: .9 ON TUESDAY, NOVEMBER 09, 2004 LOCATED APPROX. 1.1 KILOMETERS NORTHEAST OF THE SITE

LARGEST 5 EVENTS:

3.3 ON TUESDAY, DECEMBER 19, 1995 LOCATED APPROX. 2 KILOMETERS SOUTHEAST OF THE SITE
3.2 ON TUESDAY, DECEMBER 19, 1995 LOCATED APPROX. 2 KILOMETERS SOUTHEAST OF THE SITE
3.2 ON TUESDAY, DECEMBER 29, 1987 LOCATED APPROX. 8 KILOMETERS SOUTHWEST OF THE SITE
3.2 ON TUESDAY, DECEMBER 29, 1987 LOCATED APPROX. 8 KILOMETERS SOUTHWEST OF THE SITE
3.0 ON TUESDAY, DECEMBER 29, 1987 LOCATED APPROX. 9 KILOMETERS SOUTHWEST OF THE SITE

APPENDIX B

Field Investigation Program and Boring Logs

APPENDIX B
FIELD INVESTIGATION

Subsurface Exploration

The site was investigated on August 18, 2016 and consisted of advancing 2 exploratory borings to depths between 21.5 and 51.5 feet below the existing ground surface. The approximate locations of our borings are shown on Enclosure A-2, within Appendix A.

The drilling exploration was conducted using a truck mounted Mobile B-61 drill rig equipped with 8-inch diameter hollow stem augers. The soils were continuously logged by a geologist from this firm who inspected the site, created detailed logs of the borings, obtained undisturbed, as well as disturbed, soil samples for evaluation and testing, and classified the soils by visual examination in accordance with the Unified Soil Classification System.

Relatively undisturbed samples of the subsoils were obtained at a typical maximum interval of 5 feet. The samples were recovered by using a California split barrel sampler of 2.50-inch inside diameter and 3.00-inch outside diameter, from the ground surface to a depth of approximately 35 feet. From this depth to the maximum depth attained, a standard penetration sampler (SPT) was used. The samplers were driven by a 140-pound automatic trip hammer dropped from a height of 30 inches. The number of hammer blows required to drive the samplers into the ground the final 12 inches was recorded and further converted to an equivalent SPT N-value. Factors such as efficiency of the automatic trip hammer used during this investigation (80%), inner diameter of the hollow stem auger (3.75 in), and rod length at the test depth were considered for further computing of equivalent SPT N-values corrected for field procedures (≈N60) which are included in the boring logs, Enclosures B-1 through B-2.

The undisturbed soil samples were retained in brass sample rings of 2.42 inches in diameter and 1.00 inch in height, and placed in sealed plastic containers. Disturbed soil samples were obtained at selected levels within the borings and placed in sealed containers for transport to our geotechnical laboratory.

All samples obtained were taken to our geotechnical laboratory for storage and testing. Detailed logs of the borings are presented on the enclosed Boring Logs, Enclosures B-1 through B-2. A Boring Log Legend is presented on Enclosure B-I. A Soil Classification Chart is presented on Enclosure B-ii.

CONSISTENCY OF SOIL

SANDS

SPT BLOWS	CONSISTENCY
0-4	Very Loose
4-10	Loose
10-30	Medium Dense
30-50	Dense
Over 50	Very Dense

COHESIVE SOILS

SPT BLOWS	CONSISTENCY
0-2	Very Soft
2-4	Soft
4-8	Medium
8-15	Stiff
15-30	Very Stiff
30-60	Hard
Over 60	Very Hard

SAMPLE KEY

Symbol	Description
	INDICATES CALIFORNIA SPLIT SPOON SOIL SAMPLE
	INDICATES BULK SAMPLE
	INDICATES SAND CONE OR NUCLEAR DENSITY TEST
	INDICATES STANDARD PENETRATION TEST (SPT) SOIL SAMPLE

TYPES OF LABORATORY TESTS

1	Atterberg Limits
2	Consolidation
3	Direct Shear (undisturbed or remolded)
4	Expansion Index
5	Hydrometer
6	Organic Content
7	Proctor (4", 6", or Cal216)
8	R-value
9	Sand Equivalent
10	Sieve Analysis
11	Soluble Sulfate Content
12	Swell
13	Wash 200 Sieve
14	Corrosion

BORING LOG LEGEND

PROJECT:	HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY	PROJECT NO.	23291.1
CLIENT:	RIVERSIDE COUNTY WASTE RESOURSES DEPT.	ENCLOSURE:	B-i
LOR Geotechnical Group, Inc.		DATE:	AUGUST 2016

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

PARTICLE SIZE LIMITS

BOULDERS	COBBLES	GRAVEL		SAND			SILT OR CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE	
12"	3"	3/4"	No. 4	No. 10	No. 40	200	

(U.S. STANDARD SIEVE SIZE)

SOIL CLASSIFICATION CHART

PROJECT:	HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY	PROJECT NO.:	23291.1
CLIENT:	RIVERSIDE COUNTY WASTE RESOURSES DEPT.	ENCLOSURE:	B-ii
LOR Geotechnical Group, Inc.		DATE:	AUGUST 2016

LOG OF BORING B-1

DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)		DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S.	DESCRIPTION
	TEST DATA								
0								SC	@ 0 feet, FILL: CLAYEY SAND, approximately 10% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 40% silty fines, brown, dry, loose.
	30		10.6		114.9				
5	59		15.6		110.0			ML SM	@ 2 feet, OLDER ALLUVIUM: CLAYEY SAND, approximately 15% coarse grained sand, 20% medium grained sand, 25% fine grained sand, 40% silty fines with trace clay, red-brown, trace roothairs, slighlty micaceous.
10	57		12.8		117.1				@ 5 feet, SILTY SAND/SANDY SILT, approximately 5% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 50% silty fines, yellow-brown, damp, some calcite stringers.
15	47		17.5		109.0				@ 10 feet, slightly micaceous.
20	36		22.9		104.2			CL	@ 20 feet, LEAN CLAY with SAND, approximately 15% medium grained sand, 15% fine grained sand, 70% clayey fines of low plasticity, brown, damp.
25	50		16.6		113.3				@ 25 feet, slightly less fines.
30	63		14.2		93.7				
35	31		19.2					SW CL	@ 34 to 34.5 feet, WELL GRADED SAND, approximately 35% coarse grained sand, 35% medium grained sand, 35% fine grained sand, 5% silty fines, wet, white, groundwater.
40	55		20.4					ML	@ 40 feet, SANDY SILT, approximately 20% fine grained sand, 80% silty fines, brown, moist.
45	124 for 9"		15.1					ML SM	@ 45 feet, SILTY SAND/SANDY SILT, approximately 50% fine grained sand, 50% silty fines, brown, damp.
50	66		19.9					CL	@ 50 feet, LEAN CLAY with SAND, approximtely 5% coarse grained sand, 10% medium grained sand, 15% fine grained sand, 65% clayey fines of low plasticity, moist, some secondary calcite as stringers.
55									END OF BORING
60									Fill to 2' Groundwater @ 34' No bedrock

PROJECT:	Household Hazardous Waste Collection Facility	PROJECT NUMBER:	23291.1
CLIENT:	Riverside County Waste Resourses Dept.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	August 18, 2016
		EQUIPMENT:	Mobile B61
		HOLE DIA.: 8"	ENCLOSURE: B-1

LOG OF BORING B-2

DEPTH IN FEET	SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)		DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S.	DESCRIPTION
	TEST DATA								
0								SC	@ 0 feet, FILL: CLAYEY SAND, approximately 15% coarse grained sand, 20% medium grained sand, 25% fine grained sand, 40% silty fines, brown, dry, loose.
	22		8.0		118.5				@ 2 feet, OLDER ALLUVIUM SILTY SAND, approximately 20% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 25% silty fines with trace clay, brown, damp.
5	68 for 9"		10.1		118.1			ML SM	@ 5 feet, SILTY SAND/SANDY SILT, approximately 5% coarse grained sand, 20% medium grained sand, 25% fine grained sand, 50% silty fines, yellow-brown, damp, some secondary calcite as stringers.
10	52		18.0		111.2				
15	29		19.5		108.1			CL	@ 15 feet, LEAN CLAY with SAND, approximately 5% coarse grained sand, 10% medium grained sand, 10% fine grained sand, 75% claycy fines of low pasticity, brown, damp, some secondary calcite.
20	46		19.7		108.0				END OF BORING Fill to 2' No groundwater No bedrock
25									

PROJECT:	Household Hazardous Waste Collection Facility	PROJECT NUMBER:	23291.1
CLIENT:	Riverside County Waste Resourses Dept.	ELEVATION:	
LOR GEOTECHNICAL GROUP INC.		DATE DRILLED:	August 18, 2016
		EQUIPMENT:	Moblie B61
		HOLE DIA.: 8"	ENCLOSURE: B-2

APPENDIX C

Laboratory Testing Program and Test Results

APPENDIX C
LABORATORY TESTING

General

Selected soil samples obtained from the borings were tested in our geotechnical laboratory to evaluate the physical properties of the soils affecting foundation design and construction procedures. Laboratory testing included in-place moisture content and dry density, laboratory compaction characteristics, direct shear, sieve analysis, sand equivalent, R-value, expansion potential, Atterberg limits, and soluble sulfate content. Descriptions of the laboratory tests are presented in the following paragraphs:

Moisture-Density Tests

The moisture content and dry density information provides an indirect measure of soil consistency for each stratum, and can also provide a correlation between soils on this site. The dry unit weight and field moisture content were determined in accordance with ASTM D 2937, and 2216, respectively, for selected in-place and undisturbed samples, and the results are shown on the Boring logs, Enclosures B-1 through B-2, for convenient correlation with the soil profile.

Laboratory Compaction

Selected soil samples were tested in the laboratory to determine compaction characteristics using the ASTM D 1557 compaction test method. The results are presented in the following table:

LABORATORY COMPACTION				
Boring Number	**Sample Depth (feet)**	**Soil Description (U.S.C.S.)**	**Maximum Dry Density (pcf)**	**Optimum Moisture Content (percent)**
B-1	0-3	(SC) Clayey Sand	126.5	11.0

Direct Shear Tests

Shear tests are performed with a direct shear machine in general accordance with ASTM D 3080 at a constant rate-of-strain (usually 0.05 inches/minute). The machine is designed to test a sample partially extruded from a sample ring in single shear. Samples are tested at varying normal loads in order to evaluate the shear strength

parameters, angle of internal friction and cohesion. Samples are tested in remolded condition (90 percent per ASTM D 1557) and soaked, according to conditions expected in the field.

The results of the shear tests are presented in the following table:

DIRECT SHEAR TESTS				
Boring Number	**Sample Depth (feet)**	**Soil Description (U.S.C.S.)**	**Apparent Cohesion (psf)**	**Angle of Internal Friction (degrees)**
B-1	0-3	(SC) Clayey Sand	120	31

Sieve Analysis

A quantitative determination of the grain size distribution was performed for selected samples in accordance with the ASTM D 422 laboratory test procedure. The determination is performed by passing the soil through a series of sieves, and recording the weights of retained particles on each screen. The results of the sieve analyses are presented graphically on Enclosure C-1.

Sand Equivalent

The sand equivalent of selected soils were evaluated using the California Sand Equivalent Test Method, Caltrans Number 217. The results of the sand equivalent tests are presented with the grain size distribution analyses on Enclosure C-1.

R-Value Test

Soil samples were obtained at probable pavement subgrade level and sieve analysis and sand equivalent tests were conducted. A selected soil sample was tested to determine its R-value using the California R-Value Test Method, Caltrans Number 301. The results of the sieve analysis, sand equivalent and R-value tests are presented on Enclosure C-1.

Expansion Index Tests

Remolded samples are tested to determine their expansion potential in accordance with the Expansion Index (EI) test. The test is performed in accordance with the

Uniform Building Code Standard 18-2. The test results are presented in the following table:

EXPANSION INDEX TESTS				
Boring Number	**Sample Depth (feet)**	**Soil Description**	**Expansion Index (EI)**	**Expansion Potential**
B-1	0-3	(CL) Sandy Clay	35	Low

Expansion Index:	0-20	21-50	51-90	91-130
	Very low	Low	Medium	High

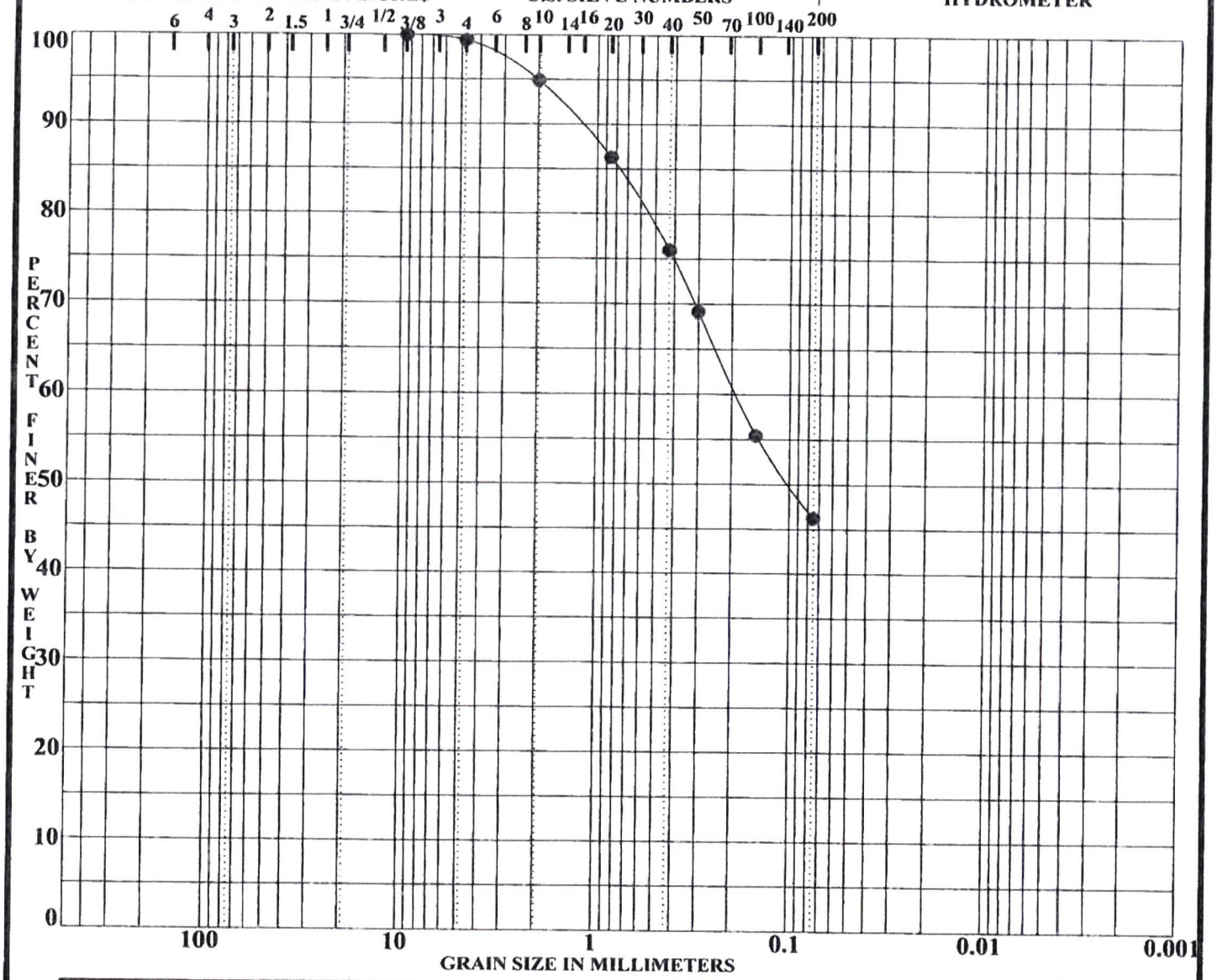
Atterberg Limits

Selected samples of the fine-grained soil units encountered at the site are tested for their Atterberg limits in accordance with ASTM D 4318. The results of these tests are presented on Enclosure C-2.

Soluble Sulfate Content Tests

The soluble sulfate content of selected subgrade soils was evaluated. The concentration of soluble sulfates in the soils was determined by measuring the optical density of a barium sulfate precipitate. The precipitate results from a reaction of barium chloride with water extractions from the soil samples. The measured optical density is correlated with readings on precipitates of known sulfate concentrations. The test results are presented on the following table:

SOLUBLE SULFATE CONTENT TESTS			
Boring Number	**Sample Depth (feet)**	**Soil Description (U.S.C.S.)**	**Sulfate Content (percent by weight)**
B-1	0-3	(CL) Sandy Clay	0.02



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Soil Classification	SE	RV	PL	PI	Cc	Cu
● B-1	@ 0-3 ft	(SC) Clayey Sand	9	5	12	23		

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B-1	@ 0-3 ft	9.50	0.19			0.6	53.2	46.2	

PROJECT *Household Hazardous Waste Collection Facility*

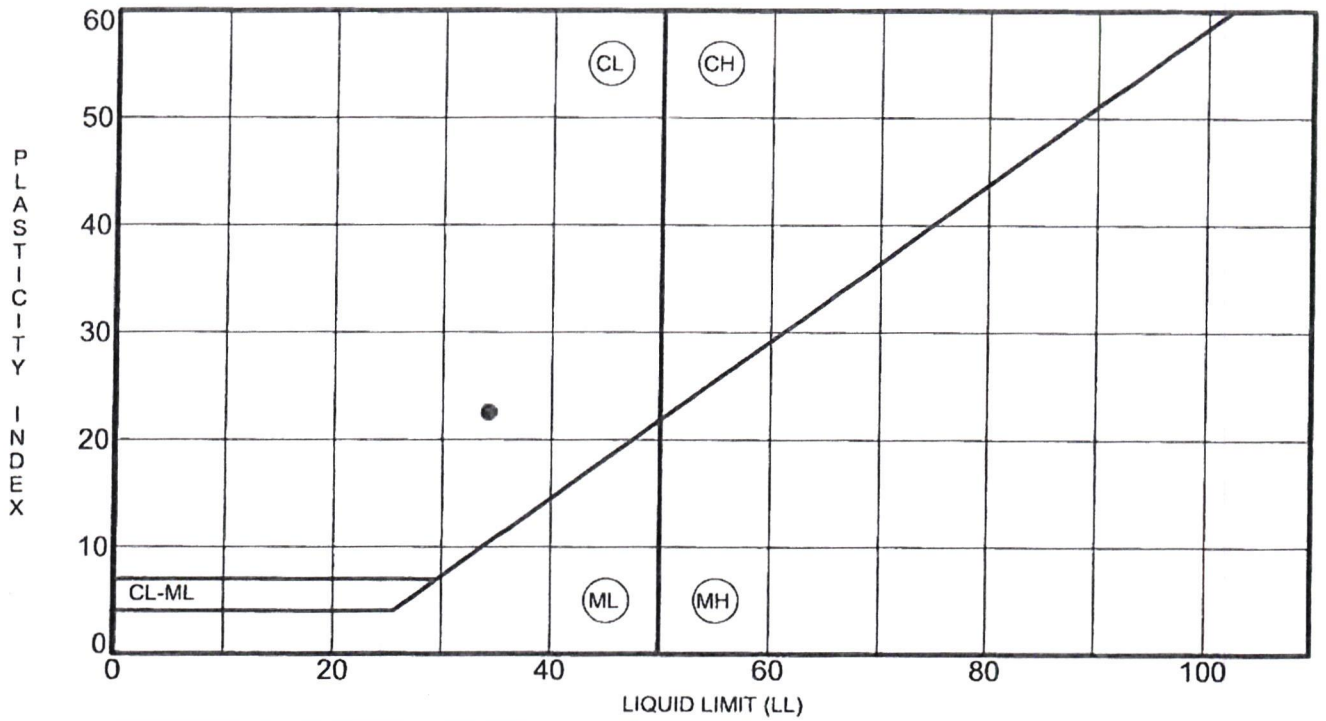
PROJECT NO. *23291.1*

DATE *8/29/16*

GRADATION CURVES

LOR Geotechnical Group, Inc.

ENCLOSURE C-1



Specimen Identification	LL	PL	PI	Fines	Classification
● **B-1 @ 0-3 ft**	**34**	**12**	**23**	**46.2**	**(SC) Clayey Sand**

Project: **Household Hazardous Waste Collection Facility - APN 963-070-022**

Project No.: **23291.1**

Date: **8/29/16**

ATTERBERG LIMITS' RESULTS

LOR Geotechnical Group, Inc.

ENCLOSURE: C - 2

APPENDIX D

Infiltration Test Results

DOUBLE RING INFILTROMETER TEST DATA

Southwest Household Hazadous Waste Collection Facility	Test Date:
23291.1	Test Hole No.:
(SC) Clayey Sand	Test Hole Diameter:
0.33 ft.	Date Excavated:
Tap Water	pH:
Inner = 0.785 ft^2 Annular = 2.36 ft^2	Depth of Water in Rings:
R.L.	Ring Penetration:
Vacuum Seal	
200+ ft.	

TEST PERIOD

TOTAL ELAPSED TIME (minutes)	WATER USED (lbs.)		WATER USED (gal)		INFILTRATION RATE (gal/sf./day)	
	inner	annular space	inner	annular space	inner	annular space
15	6.54	17.64	0.79	2.12	96.0	-
30	4.21	9.17	0.51	1.10	61.8	-
60	3.22	19.25	0.39	2.31	23.6	-
120	7.27	18.49	0.87	2.22	26.7	-
180	6.25	15.96	0.75	1.91	22.9	-

TEST PERIOD

TOTAL ELAPSED TIME (minutes)	WATER USED (lbs.)		WATER USED (gal)		INFILTRATION RATE (gal/sf./day)	
	inner	annular space	inner	annular space	inner	annular space
240	2.08	13.38	0.25	1.61	7.6	16.3
300	3.74	13.21	0.45	1.59	13.7	16.1
360	2.95	13.17	0.35	1.58	10.8	16.1

DOUBLE RING INFILTROMETER TEST DATA

Southwest Household Hazadous Waste Collection Facility	Test Date:
23291.1	Test Hole No.:
(SC) Clayey Sand	Test Hole Diameter:
0.67 ft.	Date Excavated:
Tap Water	pH:
Inner = 0.785 ft^2 Annular = 2.36 ft^2	Depth of Water in Rings:
R.L.	Ring Penetration:
Vacuum Seal	
200+ ft.	

TEST PERIOD

TOTAL ELAPSED TIME (minutes)	WATER USED (lbs.)		WATER USED (gal)		INFILTRATION RATE (gal/sf./day)	
	inner	annular space	inner	annular space	inner	annular space
30	0.39	2.56	0.05	0.31	2.9	6.3
270	0.0	10.84	0.0	1.30	0.0	3.3

Attachment D - Table - 1 – French Valley HHWCF Electrical Equipment Summary

Facility I.D.	Description (L'xW'xH')	Proposed Electrical Additions	Comments
1	Office/Breakroom (32'x12'x8')	Air Conditioner/Heater Unit (x1)	For office equipment such as: computer, phone, fax, etc.
		Interior Power Receptacle (x6)	
		Interior Light Fixture (x3)	
2	Supply Storage (20'x8'x8')	None	None
3	Chemical Storage x2 (24'x8'x8')	Dry Chemical Fire Suppression System	Sample Wiring Diagram (Attachment B)
		Grounding for Chemical Storage Containers	
4	Electric Forklift Charger	Electric Forklift Charger (x1)	480 Volt
5	Canopy Structure (132'x60'x16')	Weatherproof Exterior Power Receptacles	Receptacle mounted to shade structure columns for occasional use of some small power tools and/or one 4'x4' floor scale
		Lighting under Canopy	LED Flood Light
		Bird deterrents	Bird spike strips shall be installed on metal roof
6	Used Oil Aboveground Storage Tank (8.7'x3'x4') with five Concrete Bollards	None	Concrete Bollards shall be installed to surround the perimeter of the AST to satisfy CCR Title 22 Chapter15,Article 10.
7	Light/Camera Pole	LED Flood Light	LED flood lights to provide illumination within 200' radius; all poles shall have capacity to mount a surveillance camera
		Surveillance Camera	
8	Connex Box - Re Use Store	None	None